

Land Subdivision and Land Development

1997

Issued December 1999

EC97C-2331A

1997 Economic Census

Construction

Industry Series



U S C E N S U S B U R E A U

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U.S. Department of Commerce
Economics and Statistics Administration
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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
233110 655200	Land subdivision & land development Land subdividers and developers, except cemeteries	8 186 8 186	41 827 41 827	1 509 773 1 509 773	13 635 521 13 635 521	10 247 820 10 247 820	9 154 633 9 154 633	1 867 422 1 867 422	276 804 276 804

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—	
		All	Con- struction workers	January to March	April to June	July to September	October to December	All employees	Construction workers		
											A
233110, LAND SUBDIVISION & LAND DEVELOPMENT											
United States	8 186	41 827	10 977	10 219	10 485	11 911	11 293	1 509 773	254 247	1	
Alabama	99	254	74	66	69	73	87	9 412	1 468	10	
Alaska	27	145	27	13	24	38	34	3 322	616	3	
Arizona	228	1 540	323	244	303	365	381	52 918	6 701	10	
Arkansas	85	546	47	37	33	67	52	15 065	522	7	
California	796	4 764	S	S	1 106	S	S	213 735	S	2	
Colorado	219	1 063	287	263	254	314	315	37 008	6 224	7	
Connecticut	91	640	246	232	250	258	246	17 806	4 540	7	
Delaware	17	59	47	48	51	43	46	1 239	845	10	
District of Columbia	15	157	S	S	S	S	S	D	S	3	
Florida	698	4 733	1 086	1 065	1 068	S	S	156 657	S	2	
Georgia	340	1 613	380	355	373	393	398	57 779	9 281	5	
Hawaii *	54	637	170	166	171	185	157	22 942	4 481	1	
Idaho	67	214	*71	68	*61	*78	*76	6 335	*1 357	17	
Illinois	286	1 454	430	386	431	479	424	62 601	11 404	10	
Indiana	212	808	289	226	279	339	311	27 717	6 168	8	
Iowa	39	66	28	26	28	28	28	1 715	293	4	
Kansas	56	221	129	116	128	150	122	7 354	2 706	17	
Kentucky	80	272	D	D	49	85	53	7 592	1 156	9	
Louisiana	61	307	63	90	*65	40	55	8 268	637	11	
Maine	19	64	17	17	16	17	18	3 018	564	Z	
Maryland	139	582	281	293	323	249	260	24 140	7 317	8	
Massachusetts	220	1 055	288	270	285	295	300	42 365	8 111	9	
Michigan	278	1 039	369	319	346	444	366	35 282	7 816	9	
Minnesota	120	436	95	70	86	111	111	18 262	2 579	9	
Mississippi	44	219	128	108	126	158	118	4 751	1 499	10	
Missouri	175	712	312	285	331	336	295	19 540	4 588	8	
Montana	31	62	4	3	3	4	S	1 497	47	12	
Nebraska	25	75	26	22	23	33	27	3 583	655	Z	
Nevada	116	976	213	182	185	240	246	46 490	7 466	3	
New Hampshire	38	142	38	29	30	40	54	5 370	776	25	
New Jersey	228	1 082	299	304	276	302	315	38 927	9 223	7	
New Mexico	76	424	65	52	55	62	91	15 963	925	4	
New York	260	1 354	311	311	261	330	343	55 110	8 526	6	
North Carolina	366	1 851	388	348	363	427	415	49 050	7 207	4	
North Dakota	5	7	D	D	6	6	6	D	S	20	
Ohio	271	1 565	313	271	282	352	348	51 289	6 576	7	
Oklahoma	104	289	141	*181	*179	98	107	7 319	2 498	14	
Oregon	127	489	174	164	156	202	175	21 921	6 531	15	
Pennsylvania	240	1 070	*281	*252	*268	309	293	33 402	*6 491	17	
Rhode Island	77	160	S	12	S	S	S	8 105	S	38	
South Carolina	164	1 832	317	288	319	362	299	55 303	5 942	3	
South Dakota	17	54	24	19	24	26	26	1 751	373	6	
Tennessee	174	601	137	120	130	167	132	19 541	4 053	11	
Texas	643	2 683	725	784	662	707	748	105 902	14 423	4	
Utah	128	539	197	181	174	209	222	20 716	4 217	8	
Vermont	17	92	70	70	66	80	63	1 897	1 042	21	
Virginia	199	1 228	243	226	241	256	248	40 401	6 073	7	
Washington	267	1 089	375	348	326	428	399	44 336	10 011	2	
West Virginia	35	108	S	18	S	S	S	2 964	S	26	
Wisconsin	103	401	112	83	94	157	115	12 698	2 400	6	
Wyoming	12	*54	*43	S	*46	*65	*49	*1 087	864	51	

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—		
	A	B	C	D	E	F	G	H	B	G	
233110, LAND SUBDIVISION & LAND DEVELOPMENT											
United States	13 635 521	10 247 820	9 154 633	1 867 422	3 387 700	80 840	276 804	1 746 086	1	6	
Alabama	102 556	78 888	71 599	15 341	23 668	355	*2 142	10 511	19	52	
Alaska	17 376	15 702	13 417	3 223	1 674	138	309	1 505	9	4	
Arizona	603 881	351 598	352 604	40 551	252 283	4 003	12 798	111 004	7	6	
Arkansas	132 982	125 262	112 623	20 424	7 720	S	3 112	S	23	22	
California	1 899 484	1 420 333	1 277 417	229 115	479 151	S	28 643	S	3	4	
Colorado	332 369	207 416	184 657	33 264	124 953	1 388	3 847	29 739	9	19	
Connecticut	89 887	65 836	53 685	15 857	*24 051	S	*3 539	13 977	6	65	
Delaware	9 512	6 330	4 625	*1 705	3 181	S	*36 175	628	22	7	
District of Columbia.....	S	S	S	S	S	192	S	4 000	S	6	
Florida	1 461 947	1 135 768	1 011 889	196 183	326 179	S	S	228 939	4	S	
Georgia	975 714	749 797	698 386	107 243	225 917	3 784	12 396	75 393	5	9	
Hawaii *	140 644	103 633	82 582	27 567	S	727	S	S	4	S	
Idaho	61 925	37 581	29 789	9 465	24 344	419	736	5 077	8	30	
Illinois	626 277	468 608	423 536	63 608	157 668	3 735	7 302	58 809	9	7	
Indiana	221 926	152 717	143 310	29 466	69 209	929	7 865	33 714	12	22	
Iowa	15 489	10 871	9 989	2 452	4 619	S	111	754	4	20	
Kansas	61 407	40 024	30 975	*14 831	21 383	199	811	8 271	25	20	
Kentucky	80 014	58 833	50 264	14 237	21 181	503	3 713	S	9	7	
Louisiana	75 333	63 746	54 107	12 462	11 587	279	2 710	13 732	10	24	
Maine	7 476	6 007	5 777	1 206	1 469	37	192	930	Z	Z	
Maryland	155 251	107 099	94 201	17 191	48 152	1 618	S	11 930	14	S	
Massachusetts	367 154	287 236	241 856	68 193	79 918	1 437	S	S	8	S	
Michigan	345 564	249 666	S	70 620	95 898	2 433	7 589	42 451	20	18	
Minnesota	161 247	132 165	119 248	6 511	29 082	909	S	26 035	7	S	
Mississippi	32 321	25 799	22 747	6 511	6 521	243	720	3 605	8	26	
Missouri	126 580	99 290	78 539	27 851	S	920	2 047	31 234	9	13	
Montana	14 524	12 369	11 012	2 442	2 155	48	111	S	15	Z	
Nebraska	19 931	15 263	13 945	3 623	4 668	108	289	1 929	Z	Z	
Nevada	496 922	279 398	228 458	61 068	217 524	S	11 499	44 396	5	4	
New Hampshire	*68 686	*52 276	43 194	*13 731	*16 410	185	500	5 522	44	21	
New Jersey	412 910	331 978	287 760	61 730	80 932	*11 226	S	S	9	S	
New Mexico	110 291	80 715	73 413	12 524	29 577	369	1 370	11 605	17	15	
New York	365 187	296 323	239 569	73 511	68 864	1 083	S	S	6	S	
North Carolina	432 271	346 620	290 035	74 712	85 651	S	S	58 331	9	S	
North Dakota	S	S	S	S	S	S	S	S	S	S	
Ohio	448 077	364 821	337 691	62 711	83 256	S	10 095	71 500	9	12	
Oklahoma	84 692	78 093	69 160	15 145	6 599	388	S	13 476	8	S	
Oregon	186 349	114 939	105 287	18 663	71 410	S	7 643	29 504	15	17	
Pennsylvania	270 711	199 800	180 319	49 008	70 911	917	10 281	52 644	19	23	
Rhode Island	*67 312	*61 278	*56 311	S	S	171	S	*11 161	44	S	
South Carolina	505 220	373 752	339 198	57 043	131 467	2 517	8 303	62 019	7	8	
South Dakota	S	S	4 500	1 523	S	S	S	S	S	S	
Tennessee	183 442	150 927	131 319	36 891	32 516	S	S	26 003	12	S	
Texas	850 697	710 605	635 469	126 030	140 091	S	S	S	4	S	
Utah	110 259	74 325	64 297	*15 887	35 934	556	2 677	19 348	23	33	
Vermont	7 334	5 757	6 337	1 347	1 578	90	*456	*2 072	36	55	
Virginia	322 113	252 870	225 366	41 732	69 244	1 389	6 924	37 404	5	12	
Washington	395 134	296 714	275 016	52 803	98 420	S	S	36 408	5	S	
West Virginia	25 605	21 246	22 692	5 377	*4 359	*99	*1 379	*6 021	24	57	
Wisconsin	81 621	69 861	68 500	S	11 760	S	S	21 772	8	S	
Wyoming	*9 742	*8 201	*7 789	S	*1 541	*168	S	S	63	S	

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
233110, LAND SUBDIVISION & LAND DEVELOPMENT			233110, LAND SUBDIVISION & LAND DEVELOPMENT—Con.		
Number of establishments in business during year	8 186	2	Selected costs	5 255 122	2
Number of proprietors and working partners	S	S	Cost of materials, components, and supplies	1 778 171	2
Total number of employees	41 827	1	Cost of construction work subcontracted out to others	3 387 700	2
Number of construction workers in March	10 219	2	Cost of selected power, fuels, and lubricants	89 251	2
Number of construction workers in May	10 485	3	Cost of electricity	31 244	2
Number of construction workers in August	11 911	2	Cost of natural gas and manufactured gas	9 068	3
Number of construction workers in November	11 293	2	Cost of gasoline and diesel fuel	46 600	2
Average number of construction workers	10 977	2	Cost of on-highway use of gasoline and diesel fuel	37 848	2
Number of other employees in March	31 135	1	Cost of off-highway use of gasoline and diesel fuel	8 752	5
Number of other employees in May	30 796	1	Cost of all other fuels and lubricants	S	S
Number of other employees in August	31 292	1	Rental cost for machinery, equipment, and buildings	80 840	8
Number of other employees in November	30 177	1	Rental cost for machinery and equipment	S	S
Average number of other employees	30 850	1	Rental cost for buildings	36 251	2
Payroll, all employees	1 509 773	1	Selected purchased services	103 359	2
Payroll, construction workers	254 247	3	Purchased communication services	54 022	2
Payroll, other employees	1 255 526	1	Cost of repairs to buildings and other structures	10 048	5
First-quarter payroll, all employees	350 571	1	Cost of repairs to machinery and equipment	39 290	4
Fringe benefits, all employees	236 317	1	Value of construction work	13 635 521	1
Legally required expenditures	164 669	1	Value of construction work on government owned projects	181 813	10
Voluntary expenditures	71 648	1	Value of construction work on federally owned projects	67 371	26
Value of business done	14 409 755	1	Value of construction work on state and locally owned projects	114 442	4
Value of construction work	13 635 521	1	Value of construction work on privately owned projects	13 453 707	1
Value of construction work subcontracted in from others	272 860	7	Beginning-of-year gross book value of depreciable assets	1 571 722	2
Other business receipts	774 235	3	Capital expenditures, other than land	276 804	6
Net value of construction	10 247 820	1	Retirements and disposition of depreciable assets	102 440	14
Value added	9 154 633	2	End-of-year gross book value of depreciable assets	1 746 086	2
			Depreciation charges during year	152 751	2
			Number of establishments with inventories	2 248	4
			Value of construction work for establishments with inventories	2 137 038	4
			End of 1997, inventories of materials and supplies	269 847	11
			End of 1996, inventories of materials and supplies	214 701	9
			Number of establishments with no inventories	1 486	6
			Value of construction work for establishments with no inventories	2 993 955	4
			Number of establishments not reporting inventories	4 452	2
			Value of construction work for establishments not reporting inventories	8 504 528	1

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
233110, LAND SUBDIVISION & LAND DEVELOPMENT											
Total	8 186	41 827	1 509 773	14 409 755	13 635 521	10 247 820	9 154 633	1 867 422	3 387 700	1	1
Establishments with 1 to 4 employees	S	S	S	S	S	S	S	S	S	S	S
Establishments with 5 to 9 employees	1 011	6 340	242 284	2 449 803	2 334 934	1 763 791	1 570 643	308 017	571 143	4	4
Establishments with 10 to 19 employees	454	5 929	219 931	2 049 895	1 940 185	1 371 019	1 190 119	290 610	569 166	4	5
Establishments with 20 to 49 employees	252	7 296	278 309	2 512 610	2 468 143	1 803 907	1 499 335	349 040	664 235	4	2
Establishments with 50 to 99 employees	69	4 884	162 502	1 274 952	1 203 865	920 945	814 098	177 934	282 920	Z	Z
Establishments with 100 to 249 employees	32	4 909	195 459	1 522 603	1 466 893	1 059 264	952 421	162 553	407 629	Z	Z
Establishments with 250 to 499 employees	10	2 858	81 473	485 615	465 721	381 687	349 822	51 759	84 034	Z	Z
Establishments with 500 to 999 employees	—	—	—	—	—	—	—	—	—	—	—
Establishments with 1,000 employees or more	—	—	—	—	—	—	—	—	—	—	—

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
233110, LAND SUBDIVISION & LAND DEVELOPMENT											
Total	8 186	41 827	1 509 773	14 409 755	13 635 521	10 247 820	9 154 633	1 867 422	3 387 700	1	1
Establishments with value of business done less than \$25,000	S	358	5 225	S	S	S	S	S	S	19	S
Establishments with value of business done \$25,000 to \$49,999	S	S	3 385	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$100,000 to \$249,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$250,000 to \$499,999	S	2 593	81 150	S	S	S	S	S	S	6	S
Establishments with value of business done \$500,000 to \$999,999	S	4 242	136 400	S	S	S	S	S	S	4	S
Establishments with value of business done \$1,000,000 to \$2,499,999	1 430	8 071	279 418	2 172 655	1 986 323	1 606 314	1 467 427	325 219	380 009	4	5
Establishments with value of business done \$2,500,000 to \$4,999,999	579	5 645	223 963	2 055 088	1 974 857	1 535 404	1 359 188	256 447	439 454	3	4
Establishments with value of business done \$5,000,000 to \$9,999,999	353	5 348	201 992	2 354 093	2 258 460	1 722 055	1 543 521	274 167	536 405	5	6
Establishments with value of business done \$10,000,000 or more	211	12 185	509 888	6 081 090	5 915 155	4 189 112	3 639 627	715 420	1 726 043	Z	1

Table 7. **Value of Construction Work for Establishments With Payroll by Type of Construction: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
233110, LAND SUBDIVISION & LAND DEVELOPMENT								
Total	13 635 521	12 784 266	94 102	S	1	1	10	S
Building construction, total	12 005 929	11 913 270	71 070	S	2	2	10	S
Single-family houses, detached and attached	7 693 253	7 660 213	21 010	12 029	2	2	28	10
Single-family houses, detached	7 220 325	7 188 119	20 725	11 482	2	2	29	10
Single-family houses, attached	472 927	472 095	S	S	9	9	S	S
Apartment buildings, apartment type condominiums and cooperatives	1 746 773	1 714 924	29 088	S	3	3	6	S
Manufacturing and light industrial buildings	116 966	114 609	S	^{s6}	4	4	S	63
Office buildings	268 495	259 995	7 167	^{s1} 334	5	5	29	50
All other commercial buildings, nec	1 205 425	1 195 788	8 278	1 359	2	2	8	10
Other building construction	975 018	967 740	3 177	S	5	5	36	S
Nonbuilding construction, total	900 823	870 997	S	S	3	3	S	S
Other nonbuilding construction, nec	900 823	870 997	S	S	3	3	S	S
Construction work, nsk	728 769	X	X	X	3	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				A	E						
233110, LAND SUBDIVISION & LAND DEVELOPMENT											
Total	8 186	41 827	1 509 773	13 635 521	X	10 247 820	9 154 633	3 387 700	1	1	2
Establishments not specializing ..	S	2 093	67 228	505 908	X	382 333	323 014	123 575	7	10	10
Establishments specializing 51 percent or more	S	39 734	1 442 545	13 129 613	12 518 139	9 865 488	8 831 619	3 264 125	1	1	2
Single-family houses, detached and attached											
All establishments specializing	S	22 136	782 927	7 903 746	7 432 098	5 881 314	5 117 515	2 022 431	2	2	4
Specialization 100 percent	S	17 332	598 795	5 705 996	5 705 996	4 467 384	3 879 857	1 238 613	2	2	4
Specialization 90 to 99 percent ...	S	1 029	34 188	633 804	578 987	358 417	331 866	275 387	8	11	13
Specialization 80 to 89 percent ...	238	1 818	70 041	701 844	575 038	531 776	455 213	170 068	6	8	14
Specialization 70 to 79 percent ...	116	1 093	46 296	519 252	377 849	314 964	294 721	204 288	5	6	3
Specialization 60 to 69 percent ...	S	441	14 994	162 598	99 601	105 773	73 278	*56 825	39	24	44
Specialization 51 to 59 percent ...	*44	423	18 614	180 251	94 626	103 001	82 579	77 250	18	27	35
Apartment buildings, apartment type condominiums and cooperatives											
All establishments specializing	S	3 269	143 960	1 690 850	1 659 976	1 311 308	1 158 241	379 541	3	3	2
Specialization 100 percent	S	2 925	129 444	1 561 253	1 561 253	1 217 314	1 088 235	343 940	3	3	3
Specialization 90 to 99 percent ...	S	S	S	S	S	S	S	S	S	S	S
Specialization 80 to 89 percent ...	S	119	4 937	S	S	S	S	9 134	6	S	Z
Specialization 70 to 79 percent ...	S	106	3 224	15 817	11 827	13 442	11 834	2 375	39	17	32
Specialization 51 to 59 percent ...	S	78	3 471	33 114	17 352	30 408	23 581	2 706	29	12	25
All other commercial buildings, nec											
All establishments specializing	212	3 266	132 993	1 009 513	981 713	826 678	733 162	182 835	2	2	4
Specialization 100 percent	177	2 742	119 249	935 619	935 619	761 301	673 627	174 318	1	2	4
Specialization 90 to 99 percent ...	2	D	D	D	D	D	D	D	D	D	D
Specialization 80 to 89 percent ...	3	D	D	D	D	D	D	D	D	D	D
Specialization 70 to 79 percent ...	*11	126	2 624	11 283	8 148	D	8 284	D	10	26	D
Specialization 60 to 69 percent ...	S	S	S	S	S	S	S	S	S	S	S
Specialization 51 to 59 percent ...	11	213	7 213	37 543	19 147	33 801	31 272	3 742	16	18	Z

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
233110, LAND SUBDIVISION & LAND DEVELOPMENT		
Total	14 409 755	1
Building, developing, and general contracting, total	13 058 979	1
Building construction on land owned by others—general contractor or design-builder	109 493	10
Building construction on land owned by you, for sale	278 485	9
Construction management—buildings	102 332	15
Remodeling—general contractor or design-builder	5 448	47
Subdividing/developing land owned by you into lots for sale	12 563 221	1
Other construction activities, nec	77 387	6
Other business activities secondary to construction activities, total	426 584	5
Other business activities, secondary to construction activities, nec	187 481	8
Real estate commissions and property management fees, secondary to construction activities	144 308	7
Rental or lease of properties, secondary to construction activities	94 796	5
Kind of business activity, nsk	846 805	4

Table 10. **Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
233110, LAND SUBDIVISION & LAND DEVELOPMENT											
Total	8 186	41 827	1 509 773	13 635 521	X	10 247 820	9 154 633	3 387 700	1	1	2
Establishments not specializing	105	896	30 611	211 399	X	134 125	156 474	77 274	12	19	38
Establishments specializing 51 percent or more	8 080	40 931	1 479 162	13 424 122	12 692 118	10 113 696	8 998 159	3 310 426	1	1	2
Subdividing/developing land owned by you into lots for sale											
All establishments specializing	6 030	37 590	1 374 449	12 925 006	12 193 002	9 800 903	8 503 496	3 124 104	1	1	2
Specialization 100 percent	4 609	25 072	954 781	9 460 132	9 460 132	7 294 212	6 080 789	2 165 920	2	2	3
Specialization 90 to 99 percent	504	3 158	102 844	1 093 804	1 030 866	801 968	729 396	291 836	4	7	7
Specialization 80 to 89 percent	307	3 146	109 684	961 545	816 816	759 142	695 774	202 403	4	5	5
Specialization 70 to 79 percent	195	1 531	51 178	472 972	345 351	S	S	204 607	7	12	15
Specialization 60 to 69 percent	202	1 942	73 519	522 730	321 824	374 252	390 633	148 477	4	7	8
Specialization 51 to 59 percent	213	2 740	82 443	413 823	218 014	302 963	343 196	110 860	7	9	8

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
233110, LAND SUBDIVISION & LAND DEVELOPMENT										
United States	13 635 521	1 803	4 779 411	90	96 092	6 356	8 760 018	1	3	5
Alabama	D	⁵²³	D	1	D	75	D	D	D	D
Alaska	17 376	⁶	8 767	—	—	21	8 609	8	11	—
Arizona	618 386	62	365 554	2	D	164	D	5	5	D
Arkansas	131 962	³⁵	80 365	—	—	50	⁵¹ 597	22	7	—
California	1 902 259	86	310 499	4	2 775	710	1 588 985	3	15	Z
Colorado	310 498	52	D	2	D	168	D	14	D	D
Connecticut	D	36	57 502	1	D	54	D	D	24	D
Delaware	9 512	⁹	7 253	—	—	⁸	2 259	26	34	—
District of Columbia	S	—	—	—	—	15	54 112	S	—	—
Florida	D	73	D	3	D	625	D	D	D	D
Georgia	953 615	126	233 956	⁵	6 124	214	713 535	4	17	36
Hawaii *	140 644	7	65 800	—	—	47	74 844	3	5	—
Idaho	D	²⁷	D	S	D	40	D	D	D	D
Illinois	627 174	46	D	1	D	240	D	8	D	D
Indiana	223 428	64	99 999	⁴	¹ 502	148	121 927	15	31	71
Iowa	15 489	5	6 243	—	—	34	9 246	10	26	—
Kansas	61 407	¹⁶	³⁰ 866	—	—	40	30 541	27	53	—
Kentucky	79 265	9	D	1	D	72	D	8	D	D
Louisiana	72 450	5	4 035	—	—	53	68 415	11	5	—
Maine	7 476	7	1 085	—	—	12	6 391	Z	Z	—
Maryland	154 191	36	99 271	4	5 771	103	49 149	10	14	Z
Massachusetts	367 154	37	56 182	—	—	183	310 972	6	26	—
Michigan	345 437	69	158 524	—	—	209	186 914	16	32	—
Minnesota	161 247	27	56 982	—	—	93	104 265	7	16	—
Mississippi	D	⁶	D	1	D	38	D	D	D	D
Missouri	D	³²	D	2	D	143	D	D	D	D
Montana	14 524	S	S	—	—	23	12 518	13	S	—
Nebraska	19 931	2	D	—	—	23	D	Z	D	—
Nevada	D	20	258 118	1	D	96	D	D	15	D
New Hampshire	⁶⁸ 686	¹³	⁵³ 223	—	—	24	15 463	49	63	—
New Jersey	412 742	70	D	1	D	157	D	9	D	D
New Mexico	D	19	57 870	2	D	57	D	D	25	D
New York	D	69	D	3	D	191	D	D	D	D
North Carolina	442 473	64	174 607	8	10 202	302	257 664	9	12	Z
North Dakota	S	1	D	—	—	4	D	S	D	—
Ohio	448 403	93	196 036	S	326	178	252 041	8	15	38
Oklahoma	D	¹⁵	D	1	D	89	D	D	D	D
Oregon	183 752	32	112 669	1	D	80	D	17	27	D
Pennsylvania	270 711	70	137 520	—	—	170	133 190	20	38	—
Rhode Island	⁶⁷ 312	⁴⁶	⁴⁷ 670	—	—	³¹	19 642	41	56	—
South Carolina	500 317	35	254 672	³	D	128	D	6	9	D
South Dakota	S	—	—	—	—	17	5 061	S	—	—
Tennessee	190 556	39	73 103	3	7 232	135	110 220	11	15	Z
Texas	841 344	105	D	⁴	D	537	D	4	D	D
Utah	110 259	³²	⁴⁰ 276	—	—	95	69 983	20	48	—
Vermont	7 334	9	⁴ 638	—	—	8	2 696	34	54	—
Virginia	325 835	65	185 666	5	7 712	133	132 458	4	6	1
Washington	393 511	60	98 508	S	² 718	202	292 286	6	13	50
West Virginia	25 467	¹¹	6 997	—	—	24	18 469	25	32	—
Wisconsin	D	18	D	1	D	84	D	D	D	D
Wyoming	⁹ 742	⁵	S	—	—	8	1 641	64	S	—

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **Other building construction.** Includes all types of residential and nonresidential building construction not shown elsewhere.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military nonbuilding such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 7353 Heavy construction equipment, rental and leasing (pt)
- 8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

- 1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

- 1721 Painting and paper hanging special trade contractors
- 1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Single-Family Housing Construction

1997

Issued November 1999

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1997 Economic Census

Construction
Industry Series



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Economics and Statistics Administration
U.S. CENSUS BUREAU



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division	301-457-4673
Service Sector Statistics Division	301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
233210	Single-family housing construction	138 850	570 990	14 964 583	146 798 768	92 802 168	52 585 924	41 947 744	1 211 114
152100	General contractors—single-family houses ...	116 537	438 033	10 314 481	78 546 104	52 802 444	29 210 228	24 426 964	820 494
153110	Operative builders (pt)	19 781	125 106	4 402 202	66 965 120	39 024 196	22 611 456	17 285 812	375 850
874121	Management services (pt)	2 531	7 852	247 901	1 287 544	975 532	764 238	234 967	14 769

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers	
233210, SINGLE-FAMILY HOUSING CONSTRUCTION										
United States	138 850	570 990	367 719	347 933	371 075	386 007	365 861	14 964 583	7 739 858	1
Alabama	1 977	7 735	5 065	5 182	5 196	5 081	4 800	152 534	81 327	5
Alaska	429	1 808	1 353	1 000	1 459	1 515	1 437	42 293	28 535	5
Arizona	2 305	14 612	8 721	8 542	8 704	8 797	8 840	424 185	186 282	4
Arkansas	1 028	3 110	2 158	2 104	2 174	2 268	2 087	61 814	37 903	7
California	12 998	61 091	40 283	38 540	39 639	41 562	41 392	1 832 593	960 182	1
Colorado	3 026	12 842	7 547	7 361	7 378	7 857	7 591	384 074	170 747	3
Connecticut	1 800	5 845	3 750	3 514	3 677	3 927	3 881	176 292	96 370	3
Delaware	556	2 248	1 548	1 646	1 568	1 520	1 457	57 963	31 337	4
District of Columbia	54	393	252	230	238	266	272	9 893	5 268	9
Florida	6 739	35 519	17 231	17 042	16 948	17 448	17 486	1 006 951	364 942	2
Georgia	3 595	12 844	7 396	7 132	7 391	7 696	S	342 459	150 257	3
Hawaii *	510	3 028	1 979	1 919	1 963	2 017	2 016	94 250	50 354	4
Idaho	1 123	3 697	2 869	2 478	2 889	3 190	2 918	77 074	49 686	7
Illinois	5 705	24 050	14 750	13 791	14 814	15 995	14 401	683 254	329 233	2
Indiana	3 769	16 532	11 229	10 505	11 601	11 936	10 873	398 756	224 996	7
Iowa	1 531	6 211	4 854	4 490	5 067	5 275	4 582	124 842	89 039	4
Kansas	1 373	5 888	4 270	4 001	4 457	4 409	4 212	127 682	79 318	7
Kentucky	1 733	7 292	4 677	4 461	4 679	4 872	4 699	161 858	80 876	4
Louisiana	1 287	4 560	2 857	2 664	2 793	3 021	2 950	97 524	46 783	6
Maine	956	3 298	2 493	2 172	2 547	2 702	2 550	69 621	47 261	6
Maryland	3 675	15 773	9 711	9 431	9 839	9 920	9 655	449 484	221 890	2
Massachusetts	2 840	10 513	7 024	6 587	7 222	7 290	6 996	300 245	168 615	3
Michigan	6 083	24 971	16 766	14 731	17 068	18 525	16 740	607 392	344 664	5
Minnesota	2 640	9 927	6 180	5 495	6 492	6 829	5 904	274 687	139 574	3
Mississippi	896	3 162	2 348	2 241	2 335	2 488	2 330	59 283	37 823	6
Missouri	3 204	14 220	10 030	9 376	10 192	10 769	9 783	319 216	200 734	3
Montana	959	2 534	1 966	1 712	1 989	2 246	1 918	45 308	32 374	7
Nebraska	919	3 290	2 481	2 085	2 488	2 715	2 636	73 074	46 917	6
Nevada	976	7 344	4 435	4 184	4 516	4 540	4 500	235 972	108 118	3
New Hampshire	831	2 998	2 072	1 917	2 061	2 194	2 116	78 031	46 877	5
New Jersey	4 615	16 331	10 678	10 273	10 668	11 215	10 555	477 264	242 931	2
New Mexico	1 343	5 914	4 659	4 144	4 808	4 974	4 711	134 122	92 113	12
New York	6 842	22 738	15 571	14 321	15 810	16 288	15 862	586 330	368 009	6
North Carolina	5 455	23 313	15 078	14 906	15 275	15 393	14 738	569 216	293 021	1
North Dakota	285	979	768	627	738	885	824	17 106	12 099	11
Ohio	5 386	22 061	13 926	12 812	14 187	14 942	13 763	562 933	291 466	3
Oklahoma	878	3 012	1 633	1 591	1 698	S	S	69 229	32 863	7
Oregon	3 150	9 715	6 801	6 600	7 005	7 066	6 533	231 045	134 396	4
Pennsylvania	6 317	25 506	17 211	16 119	17 399	18 434	16 891	622 029	360 561	3
Rhode Island	610	1 881	1 364	1 267	1 457	1 455	1 275	44 022	28 090	7
South Carolina	2 436	8 616	5 772	5 853	5 759	5 891	5 584	188 545	100 398	4
South Dakota	438	1 530	1 250	1 102	1 249	1 377	1 273	31 231	23 753	11
Tennessee	2 588	10 454	7 170	7 060	7 142	7 365	7 112	239 100	127 252	4
Texas	5 142	25 564	11 512	11 397	11 941	11 739	10 973	844 998	247 563	2
Utah	1 662	5 920	4 269	4 047	4 343	4 569	4 120	141 092	83 922	5
Vermont	641	2 220	1 636	1 440	1 633	1 812	1 660	49 323	32 320	5
Virginia	4 881	20 967	13 176	13 125	13 248	13 392	12 937	518 564	258 327	3
Washington	5 660	18 805	13 406	12 286	13 549	14 152	13 638	468 182	290 754	3
West Virginia	1 504	4 908	3 965	3 558	4 067	4 215	4 022	82 104	59 972	7
Wisconsin	2 959	11 185	7 723	7 171	7 812	8 305	7 605	271 225	164 327	3
Wyoming	541	2 216	1 857	1 701	1 902	2 027	1 800	48 322	37 438	7

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
233210, SINGLE-FAMILY HOUSING CONSTRUCTION										
United States	146 798 768	92 802 168	52 585 924	41 947 744	53 996 600	668 029	1 211 114	8 886 918	1	6
Alabama	1 576 208	1 092 474	560 933	563 810	483 734	5 853	11 502	113 414	9	8
Alaska	359 555	278 183	144 592	137 448	81 373	2 235	4 370	35 125	6	14
Arizona	4 873 609	2 323 812	1 497 235	903 728	2 549 797	19 262	35 423	215 739	2	4
Arkansas	539 958	390 073	203 144	198 039	149 885	2 935	5 452	45 362	7	13
California	18 137 680	10 520 853	7 407 687	3 358 133	7 616 828	92 248	124 878	855 137	1	2
Colorado	4 069 277	2 242 337	1 327 112	936 975	1 826 940	16 205	30 078	185 868	6	6
Connecticut	1 427 401	947 574	522 402	436 735	479 827	7 796	12 431	114 212	4	9
Delaware	513 984	332 315	153 686	180 433	181 669	S	4 282	37 310	5	11
District of Columbia	45 717	27 209	14 142	13 616	18 509	197	280	4 570	9	17
Florida	12 119 566	7 258 389	3 836 003	3 520 104	4 861 178	45 921	87 581	649 550	3	7
Georgia	4 751 674	3 202 566	1 619 904	1 602 716	1 549 108	16 783	27 853	233 078	5	6
Hawaii *	S	S	S	168 970	S	5 042	S	47 925	S	S
Idaho	696 998	486 435	249 086	239 436	210 562	3 863	S	40 326	10	S
Illinois	6 129 204	3 799 229	2 330 747	1 504 678	2 329 975	27 039	53 909	384 026	3	5
Indiana	3 485 518	2 402 560	1 298 746	1 186 103	1 082 957	17 160	33 262	216 549	7	15
Iowa	867 331	630 770	342 494	304 354	236 561	4 398	10 787	80 397	7	9
Kansas	1 389 289	867 245	463 742	423 490	522 044	4 726	12 708	94 713	8	9
Kentucky	1 749 468	1 216 660	620 328	632 402	532 809	6 957	12 285	121 427	4	10
Louisiana	892 787	595 686	290 713	320 442	297 102	4 146	7 332	55 742	7	13
Maine	451 089	318 170	173 676	150 207	132 919	2 223	5 375	38 635	6	9
Maryland	4 071 741	2 581 770	1 356 266	1 246 666	1 489 971	20 195	26 469	218 877	3	4
Massachusetts	2 466 962	1 685 874	950 190	768 661	781 088	13 008	22 415	187 189	5	8
Michigan	5 113 257	3 290 837	1 924 741	1 432 364	1 822 420	26 876	44 132	339 969	4	5
Minnesota	2 956 041	1 855 616	968 367	919 160	1 100 425	13 006	27 557	177 953	5	6
Mississippi	596 314	434 242	194 933	247 504	162 072	S	4 066	40 089	11	14
Missouri	2 542 704	1 777 724	968 538	856 520	764 980	11 642	24 804	190 509	4	7
Montana	378 113	270 734	135 953	138 032	107 378	2 756	4 320	31 575	10	15
Nebraska	785 134	546 470	309 155	243 152	238 664	2 821	7 335	49 465	13	12
Nevada	2 829 068	1 472 716	1 035 303	481 560	1 356 352	10 473	28 251	153 700	2	2
New Hampshire	638 611	459 801	250 566	228 711	178 810	2 624	6 376	42 355	8	11
New Jersey	4 393 306	2 854 038	1 708 066	1 186 907	1 539 268	20 244	28 271	257 572	3	6
New Mexico	1 071 559	692 923	337 774	359 259	378 636	6 153	10 790	67 588	8	13
New York	4 573 915	3 189 829	1 728 915	1 501 118	1 384 085	28 609	41 461	364 132	12	14
North Carolina	5 981 232	4 033 763	2 136 340	1 984 373	1 947 469	22 643	43 570	336 088	3	5
North Dakota	111 833	87 771	42 679	47 386	24 062	820	1 459	11 269	8	20
Ohio	5 398 843	3 606 618	1 977 162	1 675 721	1 792 225	24 895	42 118	310 515	3	4
Oklahoma	756 881	513 511	265 475	257 178	243 371	3 141	5 932	43 413	10	12
Oregon	2 492 183	1 618 599	886 218	756 537	873 584	12 979	17 746	125 960	6	7
Pennsylvania	5 182 779	3 591 097	1 930 871	1 719 524	1 591 682	26 847	47 346	410 230	3	7
Rhode Island	332 595	246 140	167 432	81 258	86 455	S	3 098	22 492	16	19
South Carolina	2 300 149	1 542 087	728 242	828 546	758 062	10 977	16 069	127 905	5	7
South Dakota	250 323	174 667	87 540	89 402	75 656	1 061	1 999	18 484	15	12
Tennessee	2 686 121	1 820 366	897 694	957 440	865 755	11 428	23 947	249 087	6	7
Texas	10 069 998	6 078 970	3 198 632	2 948 552	3 991 028	35 889	57 738	362 992	2	3
Utah	1 360 194	861 601	524 287	357 871	498 593	7 916	11 472	81 102	5	9
Vermont	325 984	222 782	122 994	106 782	103 222	1 599	2 941	30 910	8	12
Virginia	5 129 615	3 227 358	1 741 514	1 565 977	1 902 256	20 467	33 221	314 195	3	6
Washington	4 149 635	2 729 907	1 602 548	1 196 952	1 419 728	21 555	*101 562	350 842	4	66
West Virginia	440 210	358 029	175 326	187 473	S	2 363	6 688	46 486	9	12
Wisconsin	2 404 741	1 434 321	841 219	690 457	970 420	11 410	22 798	*326 173	4	8
Wyoming	339 930	229 651	127 787	104 882	110 279	1 883	3 786	28 694	9	10

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
233210, SINGLE-FAMILY HOUSING CONSTRUCTION			233210, SINGLE-FAMILY HOUSING CONSTRUCTION—Con.		
Number of establishments in business during year	138 850	Z	Selected costs	95 944 344	1
Number of proprietors and working partners	S	S	Cost of materials, components, and supplies	41 052 528	1
Total number of employees	570 990	1	Cost of construction work subcontracted out to others	53 996 600	1
Number of construction workers in March	347 933	1	Cost of selected power, fuels, and lubricants	895 215	1
Number of construction workers in May	371 075	1	Cost of electricity	279 061	1
Number of construction workers in August	386 007	1	Cost of natural gas and manufactured gas	65 846	2
Number of construction workers in November	365 861	1	Cost of gasoline and diesel fuel	523 568	1
Average number of construction workers	367 719	1	Cost of on-highway use of gasoline and diesel fuel	448 220	1
Number of other employees in March	206 787	1	Cost of off-highway use of gasoline and diesel fuel	75 348	3
Number of other employees in May	200 939	1	Cost of all other fuels and lubricants	26 739	3
Number of other employees in August	202 916	1	Rental cost for machinery, equipment, and buildings	668 029	1
Number of other employees in November	202 445	1	Rental cost for machinery and equipment	304 899	1
Average number of other employees	203 272	1	Rental cost for buildings	363 130	1
Payroll, all employees	14 964 583	1	Selected purchased services	1 130 908	1
Payroll, construction workers	7 739 858	1	Purchased communication services	610 177	1
Payroll, other employees	7 224 726	1	Cost of repairs to buildings and other structures	92 106	2
First-quarter payroll, all employees	3 344 933	1	Cost of repairs to machinery and equipment	428 626	1
Fringe benefits, all employees	2 623 197	1	Value of construction work	146 798 768	1
Legally required expenditures	2 000 118	1	Value of construction work on government owned projects ..	2 680 252	5
Voluntary expenditures	623 079	1	Value of construction work on federally owned projects ..	1 232 680	3
Value of business done	148 530 256	1	Value of construction work on state and locally owned projects	1 447 571	8
Value of construction work	146 798 768	1	Value of construction work on privately owned projects	144 118 512	1
Value of construction work subcontracted in from others ..	4 985 452	3	Beginning-of-year gross book value of depreciable assets	8 138 864	2
Other business receipts	1 731 495	6	Capital expenditures, other than land	1 211 114	6
Net value of construction	92 802 168	1	Retirements and disposition of depreciable assets	463 059	3
Value added	52 585 924	1	End-of-year gross book value of depreciable assets	8 886 918	2
			Depreciation charges during year	871 329	2
			Number of establishments with inventories	23 812	2
			Value of construction work for establishments with inventories ..	40 484 452	2
			End of 1997, inventories of materials and supplies	4 977 182	3
			End of 1996, inventories of materials and supplies	4 423 450	3
			Number of establishments with no inventories	57 689	1
			Value of construction work for establishments with no inventories	66 244 864	1
			Number of establishments not reporting inventories	57 349	1
			Value of construction work for establishments not reporting inventories	40 069 452	2

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
233210, SINGLE-FAMILY HOUSING CONSTRUCTION											
Total	138 850	570 990	14 964 583	148 530 256	146 798 768	92 802 168	52 585 924	41 947 744	53 996 600	1	1
Establishments with 1 to 4 employees	S	192 713	3 945 672	44 045 376	43 620 152	29 983 518	15 955 915	14 452 828	13 636 634	1	1
Establishments with 5 to 9 employees	21 377	133 582	3 183 712	27 764 968	27 354 828	18 325 308	9 976 470	8 758 977	9 029 521	1	2
Establishments with 10 to 19 employees	7 234	93 181	2 600 535	21 633 592	21 361 254	13 725 644	7 815 559	6 182 422	7 635 611	2	2
Establishments with 20 to 49 employees	2 466	69 883	2 267 311	20 844 658	20 591 224	12 102 833	7 333 078	5 023 191	8 488 390	2	1
Establishments with 50 to 99 employees	556	37 051	1 343 239	15 639 133	15 464 842	8 421 327	5 189 325	3 406 294	7 043 514	4	2
Establishments with 100 to 249 employees	196	28 935	1 067 346	12 378 383	12 286 655	6 644 067	3 933 276	2 802 519	5 642 589	4	5
Establishments with 250 to 499 employees	26	8 435	362 643	4 476 507	4 378 691	2 446 102	1 796 242	747 676	1 932 589	Z	Z
Establishments with 500 to 999 employees	8	D	D	D	D	D	D	D	D	D	D
Establishments with 1,000 employees or more	2	D	D	D	D	D	D	D	D	D	D

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
233210, SINGLE-FAMILY HOUSING CONSTRUCTION											
Total	138 850	570 990	14 964 583	148 530 256	146 798 768	92 802 168	52 585 924	41 947 744	53 996 600	1	1
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	S	22 599	279 757	S	S	S	S	S	S	3	S
Establishments with value of business done \$100,000 to \$249,999	35 434	73 343	1 161 854	5 828 024	5 786 159	4 825 174	2 849 304	2 017 735	S	2	2
Establishments with value of business done \$250,000 to \$499,999	26 031	78 167	1 516 818	9 182 209	9 088 797	6 941 628	3 855 518	3 179 522	2 147 170	2	2
Establishments with value of business done \$500,000 to \$999,999	20 377	88 199	1 992 148	14 302 917	14 144 313	9 862 948	5 296 837	4 724 715	4 281 365	2	2
Establishments with value of business done \$1,000,000 to \$2,499,999	17 118	110 410	2 947 823	26 444 508	26 140 938	17 583 254	9 465 863	8 420 962	8 557 683	2	2
Establishments with value of business done \$2,500,000 to \$4,999,999	5 750	57 871	1 841 049	19 682 506	19 345 954	12 267 928	6 400 815	6 203 666	7 078 026	2	3
Establishments with value of business done \$5,000,000 to \$9,999,999	2 421	38 364	1 374 128	16 365 228	16 076 613	9 692 246	5 371 712	4 609 150	6 384 367	2	3
Establishments with value of business done \$10,000,000 or more	1 712	91 514	3 753 849	55 107 848	54 613 620	30 257 196	18 501 616	12 249 806	24 356 424	2	2

Table 7. **Value of Construction Work for Establishments With Payroll by Type of Construction: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
233210, SINGLE-FAMILY HOUSING CONSTRUCTION								
Total	146 798 768	117 641 736	22 881 945	5 143 470	1	1	1	2
Building construction, total	145 310 503	117 338 758	22 839 862	5 131 884	1	1	1	2
Single-family houses, detached and attached	139 024 250	114 101 336	20 503 795	4 419 119	1	1	1	2
Single-family houses, detached	123 563 572	101 824 967	17 990 123	3 748 482	1	1	2	2
Single-family houses, attached	15 460 678	12 276 369	2 513 672	670 637	2	2	3	6
Apartment buildings, apartment type condominiums and cooperatives	1 971 763	1 144 247	551 996	S	2	4	3	S
Office buildings	1 185 971	559 152	507 465	S	5	9	7	S
All other commercial buildings, nec	1 152 373	533 891	497 661	120 821	4	6	5	4
Other building construction	1 976 146	1 000 131	778 944	197 071	5	7	6	5
Nonbuilding construction, total	356 648	302 979	42 083	11 587	6	7	12	14
Other nonbuilding construction, nec	356 648	302 979	42 083	11 587	6	7	12	14
Construction work, nsk	1 131 625	X	X	X	1	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—			
				For all types	For specialized type				B	D	H	
				A	B							C
233210, SINGLE-FAMILY HOUSING CONSTRUCTION												
Total	138 850	570 990	14 964 583	146 798 768	X	92 802 168	52 585 924	53 996 600	1	1	1	
Establishments not specializing ..	5 443	31 664	756 692	5 262 242	X	3 552 274	2 109 130	1 709 968	5	6	8	
Establishments specializing 51 percent or more	133 407	539 326	14 207 892	141 536 535	132 506 297	89 249 902	50 476 796	52 286 633	1	1	1	
Single-family houses, detached												
All establishments specializing	118 177	478 752	12 688 317	127 870 584	120 405 176	80 566 163	45 596 011	47 304 421	1	1	1	
Specialization 100 percent	86 014	314 012	8 343 864	90 434 819	90 434 819	57 338 105	31 681 246	33 096 714	1	1	1	
Specialization 90 to 99 percent ...	11 897	60 151	1 577 523	14 615 758	13 737 992	9 110 316	5 318 948	5 505 442	2	2	2	
Specialization 80 to 89 percent ...	7 474	35 906	889 484	7 040 769	5 848 421	4 558 054	2 805 105	2 482 715	3	2	2	
Specialization 70 to 79 percent ...	6 157	28 229	738 776	6 600 743	4 840 934	3 947 185	2 265 431	2 653 558	3	3	3	
Specialization 60 to 69 percent ...	3 905	26 407	784 219	6 603 687	4 161 550	4 053 211	2 499 242	2 550 476	3	2	3	
Specialization 51 to 59 percent ...	2 730	14 048	354 451	2 574 808	1 381 459	1 559 292	1 026 038	1 015 516	4	3	8	
Single-family houses, attached												
All establishments specializing	13 449	52 138	1 318 432	12 534 326	10 969 497	7 953 403	4 457 790	4 580 923	2	2	4	
Specialization 100 percent	8 742	27 504	672 869	6 623 485	6 623 485	4 361 014	2 438 581	2 262 471	3	3	3	
Specialization 90 to 99 percent ...	1 178	5 727	143 408	1 292 951	1 220 415	817 792	418 233	475 159	6	10	12	
Specialization 80 to 89 percent ...	1 054	4 896	110 998	877 906	720 815	549 373	280 374	328 532	7	9	18	
Specialization 70 to 79 percent ...	1 015	5 117	131 661	1 074 921	788 655	717 565	410 466	357 356	6	7	9	
Specialization 60 to 69 percent ...	964	5 487	160 966	1 693 806	1 081 285	940 148	561 244	753 657	7	8	20	
Specialization 51 to 59 percent ...	497	3 409	98 530	971 257	534 842	567 510	348 892	403 747	6	4	3	

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
233210, SINGLE-FAMILY HOUSING CONSTRUCTION		
Total	148 530 256	1
Building, developing, and general contracting, total	144 723 473	1
Building construction on land owned by others—general contractor or design-builder	54 322 591	1
Building construction on land owned by you, for sale	65 436 302	1
Construction management—buildings	2 603 129	5
Remodeling—general contractor or design-builder	20 786 587	1
Subdividing/developing land owned by you into lots for sale	1 574 864	4
Other construction activities, nec	952 939	4
Other business activities secondary to construction activities, total	1 696 875	6
Building construction on land owned by you, for rent or lease (investment builder), secondary to construction activities	405 459	15
Other business activities, secondary to construction activities, nec	679 368	10
Real estate commissions and property management fees, secondary to construction activities	282 618	7
Rental or lease of properties, secondary to construction activities	329 429	7
Kind of business activity, nsk	1 156 984	1

Table 10. Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
233210, SINGLE-FAMILY HOUSING CONSTRUCTION											
Total	138 850	570 990	14 964 583	146 798 768	X	92 802 168	52 585 924	53 996 600	1	1	1
Establishments not specializing	4 771	22 074	496 966	3 844 116	X	2 568 602	1 775 793	1 275 514	3	4	7
Establishments specializing 51 percent or more	134 079	548 916	14 467 618	142 954 660	130 914 833	90 233 573	50 810 132	52 721 087	1	1	1
Building construction on land owned by others—general contractor or design-builder											
All establishments specializing	64 746	258 545	6 250 513	55 479 620	49 329 264	36 110 760	19 176 815	19 368 860	1	2	2
Specialization 100 percent	36 828	132 178	3 126 672	27 735 335	27 735 335	18 283 210	9 735 483	9 452 126	1	2	3
Specialization 90 to 99 percent	7 581	37 275	923 363	8 972 162	8 426 942	5 582 375	2 899 245	3 389 787	3	3	3
Specialization 80 to 89 percent	5 409	25 304	627 481	5 618 841	4 638 062	3 684 361	2 034 617	1 934 481	5	6	6
Specialization 70 to 79 percent	5 359	25 114	645 785	5 378 068	3 961 273	3 585 311	1 856 371	1 792 758	4	3	4
Specialization 60 to 69 percent	4 045	19 651	516 589	4 754 525	2 967 063	2 921 256	1 539 257	1 833 268	9	13	12
Specialization 51 to 59 percent	5 524	19 023	410 625	3 020 688	1 600 588	2 054 247	1 111 842	966 440	4	4	5
Building construction on land owned by you, for sale											
All establishments specializing	18 659	119 767	4 266 741	65 633 568	61 248 134	38 186 285	22 045 306	27 447 282	1	1	1
Specialization 100 percent	9 780	66 684	2 491 149	40 054 668	40 054 668	22 709 311	12 882 072	17 345 357	2	1	1
Specialization 90 to 99 percent	2 502	21 120	794 852	11 632 228	11 090 663	6 837 311	3 762 107	4 794 918	3	2	2
Specialization 80 to 89 percent	1 550	9 868	361 813	5 798 086	4 829 395	3 574 256	2 474 644	2 223 830	4	3	4
Specialization 70 to 79 percent	1 697	7 927	236 596	3 340 288	2 456 299	2 149 090	1 171 511	1 191 198	5	6	6
Specialization 60 to 69 percent	1 372	6 480	177 081	2 407 095	1 534 246	1 518 276	886 629	888 819	6	9	19
Specialization 51 to 59 percent	1 759	7 688	205 249	2 401 202	1 282 864	1 398 041	868 343	1 003 162	7	8	13
Construction management—buildings											
All establishments specializing	2 412	10 041	363 627	2 058 149	1 966 142	1 312 595	993 669	745 554	5	6	10
Specialization 100 percent	1 767	7 290	271 093	1 558 270	1 558 270	1 022 606	774 809	535 664	6	8	13
Specialization 90 to 99 percent	158	S	S	S	S	S	S	S	S	S	S
Specialization 80 to 89 percent	103	537	17 760	84 619	69 423	44 529	34 235	40 090	6	9	15
Specialization 70 to 79 percent	181	S	9 490	46 577	33 750	31 373	19 030	S	S	28	S
Specialization 60 to 69 percent	102	428	14 107	76 718	47 822	53 421	42 025	23 297	20	24	28
Specialization 51 to 59 percent	102	318	8 116	51 572	27 691	36 628	27 459	*14 944	19	36	40
Remodeling—general contractor or design-builder											
All establishments specializing	46 488	152 166	3 386 468	18 654 544	17 242 512	13 896 148	8 173 050	4 758 396	1	1	2
Specialization 100 percent	33 585	104 749	2 325 751	S	S	S	S	3 146 340	1	S	2
Specialization 90 to 99 percent	4 013	14 848	327 227	1 702 760	1 601 324	1 288 148	741 040	414 612	4	4	4
Specialization 80 to 89 percent	2 294	8 746	202 867	1 184 103	974 708	848 666	463 881	335 437	5	6	8
Specialization 70 to 79 percent	2 408	8 874	193 378	1 080 355	796 271	770 211	S	310 144	5	5	7
Specialization 60 to 69 percent	2 402	8 865	201 568	S	S	S	S	S	6	S	S
Specialization 51 to 59 percent	1 786	6 083	135 678	808 710	432 823	573 239	359 600	235 470	7	7	9

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
233210, SINGLE-FAMILY HOUSING CONSTRUCTION										
United States	146 798 768	79 592	105 717 842	5 277	4 648 338	58 873	36 432 596	1	1	1
Alabama	1 600 855	1 131	1 101 948	70	70 768	816	428 139	7	11	24
Alaska	431 723	245	229 591	^{\$25} 7	72 212	184	129 919	5	7	1
Arizona	5 461 166	1 323	3 690 086	62	621 824	967	1 149 256	2	3	1
Arkansas	543 354	535	309 138	^{\$43} 90	9 919	487	224 297	7	12	14
California	17 310 127	6 704	12 614 105	90	131 492	6 275	4 564 529	1	1	8
Colorado	4 232 908	1 825	3 398 866	109	185 936	1 189	648 107	4	5	10
Connecticut	1 390 750	977	935 751	84	30 570	806	424 429	4	6	15
Delaware	566 754	290	293 832	112	58 943	262	213 979	4	5	6
District of Columbia.....	104 842	25	17 423	276	72 050	26	15 369	18	18	26
Florida.....	11 982 294	3 771	9 252 232	70	127 199	2 964	2 602 863	3	3	2
Georgia	4 762 082	1 937	3 500 152	111	78 584	1 642	1 183 346	5	7	7
Hawaii *	652 640	294	330 858	10	60 150	216	261 632	3	4	Z
Idaho	698 445	626	461 147	78	18 312	495	218 985	8	13	27
Illinois	6 041 901	3 197	4 304 362	200	120 202	2 507	1 617 337	3	4	8
Indiana	3 510 969	2 134	2 371 363	127	61 519	1 633	1 078 087	8	4	6
Iowa	881 195	865	566 428	88	21 523	666	293 244	7	8	17
Kansas	1 371 435	772	1 004 886	96	50 323	600	316 227	9	12	15
Kentucky	1 444 186	1 015	1 005 089	128	59 316	717	379 780	6	8	7
Louisiana	891 615	706	584 723	^{\$32} 3	3 531	575	303 362	7	11	10
Maine	448 222	570	316 683	^{\$62}	^{\$3} 286	386	128 254	6	8	54
Maryland.....	3 998 689	2 190	2 790 899	264	242 213	1 458	965 577	2	4	7
Massachusetts	2 516 184	1 506	1 594 172	247	95 642	1 324	826 370	5	9	21
Michigan	5 088 547	3 876	3 572 286	90	34 277	2 207	1 481 984	4	6	18
Minnesota.....	2 913 582	1 615	2 256 481	109	29 111	1 024	627 990	5	7	13
Mississippi	656 387	514	433 743	74	67 157	377	155 487	10	15	20
Missouri	2 542 489	1 886	1 652 896	156	68 065	1 315	821 528	5	5	24
Montana	384 035	552	273 336	^{\$23}	10 125	408	100 574	9	14	37
Nebraska	788 237	626	674 062	21	14 883	291	99 292	14	16	3
Nevada	3 027 346	441	2 458 322	84	218 138	529	350 886	2	2	4
New Hampshire.....	603 598	507	415 185	103	21 415	317	166 998	7	10	12
New Jersey	4 447 765	2 494	2 864 321	150	115 359	2 084	1 468 086	3	4	6
New Mexico	1 070 884	828	733 340	21	26 515	505	311 029	6	7	1
New York	4 556 071	3 609	3 060 057	228	47 530	3 203	1 448 485	13	19	6
North Carolina	6 172 403	3 097	4 442 483	90	261 206	2 350	1 468 714	3	3	4
North Dakota	124 323	157	67 084	^{\$50}	14 974	128	42 266	7	13	17
Ohio	5 436 733	3 260	4 078 942	203	218 519	2 123	1 139 273	3	3	1
Oklahoma	758 164	519	536 826	^{\$12}	8 674	359	212 664	10	13	1
Oregon	2 516 773	1 957	1 885 509	84	45 498	1 190	585 766	6	8	19
Pennsylvania	5 112 249	3 781	3 642 781	384	87 022	2 530	1 382 447	3	4	14
Rhode Island	352 400	311	212 641	34	27 453	295	112 307	13	21	35
South Carolina.....	2 369 085	1 341	1 685 683	149	108 741	1 085	574 661	4	6	6
South Dakota.....	257 210	256	200 904	29	18 128	177	38 178	17	22	3
Tennessee.....	2 728 383	1 557	1 867 162	45	80 469	1 026	780 752	6	8	2
Texas	9 910 756	2 680	7 839 518	63	373 312	2 456	1 697 926	2	2	7
Utah	1 407 066	941	951 654	23	61 855	706	393 556	6	8	3
Vermont	317 886	458	234 168	^{\$33}	1 975	182	81 743	9	12	29
Virginia	5 125 931	3 151	3 805 136	274	336 052	1 715	984 743	3	5	3
Washington	4 115 551	3 366	2 932 939	138	73 444	2 284	1 109 169	4	6	3
West Virginia	428 705	874	215 938	87	25 236	630	187 531	7	11	16
Wisconsin.....	2 407 230	1 958	1 815 804	111	49 655	1 001	541 770	6	5	6
Wyoming.....	336 650	339	234 911	23	8 036	184	93 703	10	13	11

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **Other building construction.** Includes all types of residential and nonresidential building construction not shown elsewhere.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military nonbuilding such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Multifamily Housing Construction

1997

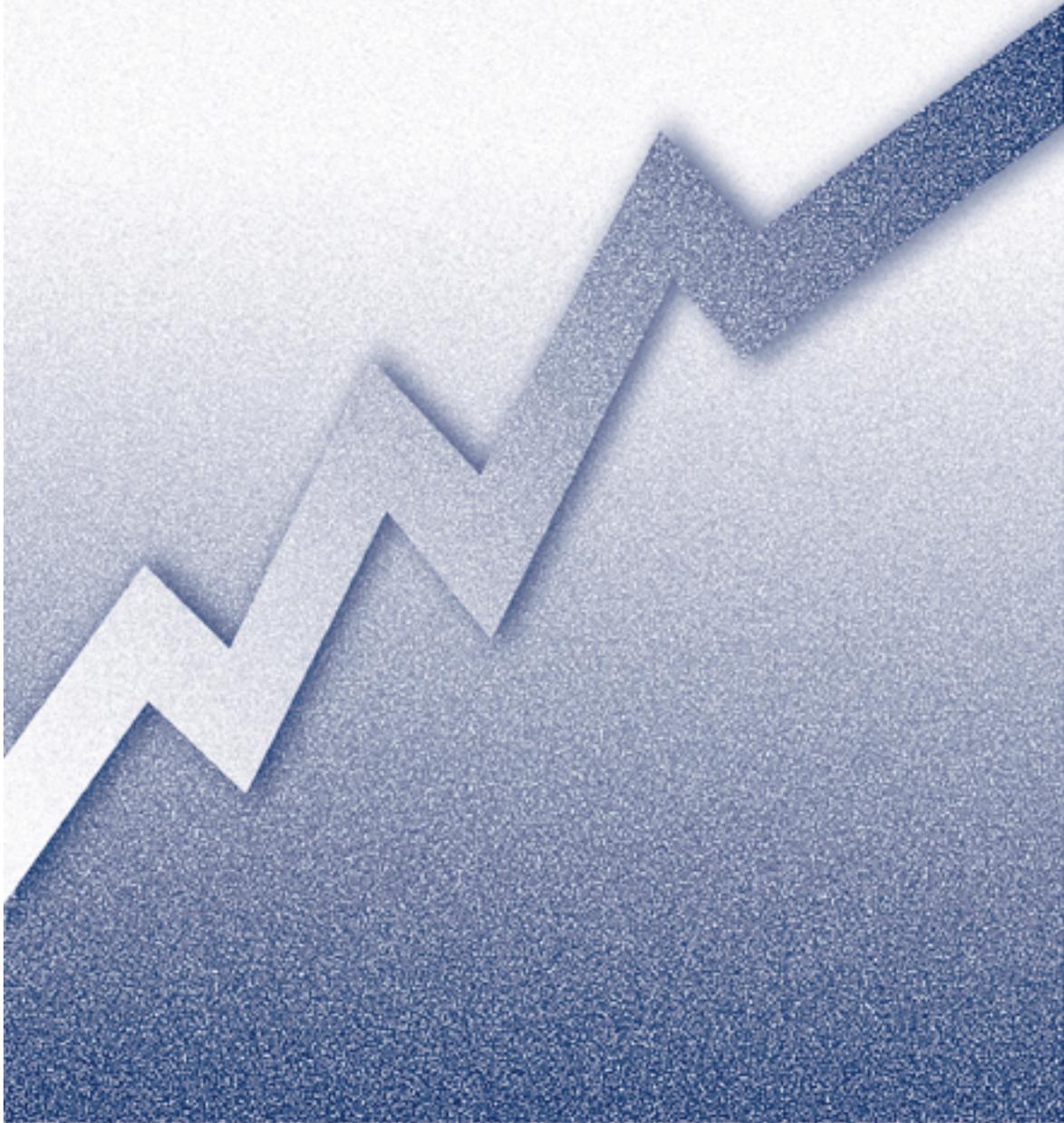
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1997 Economic Census

Construction

Industry Series



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
233220	Multifamily housing construction	7 544	58 896	1 766 627	14 487 308	7 322 008	3 788 773	3 762 633	95 759
152220	General contr—residential bldgs, other than single-family (pt)	6 341	47 742	1 396 445	10 929 329	5 527 400	2 840 835	2 816 644	71 959
153120	Operative builders (pt)	693	8 541	274 426	2 816 386	1 459 644	770 259	774 978	20 167
874122	Management services (pt)	510	2 613	95 756	741 594	334 964	177 679	171 011	3 632

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—	
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers		
											A
233220, MULTIFAMILY HOUSING CONSTRUCTION											
United States	7 544	58 896	40 082	37 287	40 635	42 540	39 867	1 766 627	1 022 265	2	
Alabama	68	1 090	884	887	912	891	847	33 255	25 920	13	
Alaska	30	342	252	208	273	275	253	13 861	9 543	20	
Arizona	87	642	429	411	382	^s 468	456	16 883	^s 9 586	26	
Arkansas	24	286	213	177	207	240	229	7 266	5 048	28	
California	736	5 848	3 915	3 746	3 871	4 050	3 994	177 081	101 027	3	
Colorado	209	1 004	591	480	611	631	641	28 948	15 413	14	
Connecticut	78	277	209	223	202	213	196	8 204	5 499	11	
Delaware	14	118	64	67	64	63	63	2 466	1 850	13	
District of Columbia	12	240	162	151	211	156	131	7 758	6 281	5	
Florida	485	7 490	4 728	4 416	4 993	5 082	4 420	247 563	125 889	11	
Georgia	156	1 263	779	675	842	840	760	39 170	18 131	13	
Hawaii *	33	196	123	121	122	121	128	7 243	3 497	7	
Idaho	^s 47	325	240	237	264	268	193	11 111	8 350	26	
Illinois	400	2 621	1 723	1 473	1 711	2 024	1 685	85 482	46 990	16	
Indiana	156	935	641	627	669	677	592	22 629	13 634	15	
Iowa	94	534	354	353	349	364	349	15 210	7 540	16	
Kansas	44	568	421	405	425	468	386	19 019	12 175	5	
Kentucky	66	737	573	578	585	556	573	18 724	12 921	11	
Louisiana	48	699	566	503	586	609	565	20 243	13 842	16	
Maine	15	177	84	61	83	104	89	4 672	1 576	14	
Maryland	133	1 078	653	652	693	653	615	39 718	17 386	7	
Massachusetts	163	1 458	1 077	629	972	^s 1 312	^s 1 394	47 313	31 179	27	
Michigan	146	1 135	763	732	771	822	726	35 792	19 455	11	
Minnesota	98	491	354	327	375	377	338	16 772	10 997	18	
Mississippi	5	102	75	83	70	70	76	2 278	1 366	Z	
Missouri	235	975	724	694	737	771	696	22 325	14 645	11	
Montana	31	118	75	67	76	86	72	3 372	1 849	19	
Nebraska	12	185	114	109	117	112	112	5 157	2 673	3	
Nevada	43	456	396	398	415	400	370	11 132	8 412	16	
New Hampshire	16	87	61	51	59	77	58	2 683	1 129	6	
New Jersey	263	1 393	1 066	1 019	1 045	1 092	1 108	42 157	28 205	8	
New Mexico	^s 10	383	296	285	288	329	280	D	D	1	
New York	1 017	6 268	4 654	4 334	4 655	4 961	4 666	195 202	128 926	6	
North Carolina	234	1 693	1 133	1 005	1 141	1 202	1 184	49 390	26 195	18	
North Dakota	^s 41	218	181	156	167	205	194	5 499	3 479	26	
Ohio	267	2 731	1 479	1 416	1 479	1 533	1 488	72 023	34 676	6	
Oklahoma	55	154	108	142	98	103	87	3 817	2 214	25	
Oregon	179	1 024	678	611	653	724	717	31 651	19 384	11	
Pennsylvania	291	1 604	1 199	1 144	1 213	1 232	1 207	44 335	31 178	8	
Rhode Island	58	225	175	159	172	178	190	4 269	2 987	21	
South Carolina	55	334	227	199	209	223	276	10 732	4 961	11	
South Dakota	3	8	D	D	D	3	D	D	12	Z	
Tennessee	123	1 374	1 054	1 088	1 174	1 008	947	37 615	25 675	22	
Texas	325	3 685	2 258	2 169	2 231	2 389	2 242	112 304	52 072	6	
Utah	95	735	521	441	508	555	581	18 461	9 673	16	
Vermont	^s 32	^s 75	^s 7	^s 28	^s 45	^s 88	^s 67	^s 1 420	^s 1 152	50	
Virginia	198	2 096	1 430	1 326	1 495	1 482	1 416	51 891	25 981	10	
Washington	292	1 780	1 173	1 135	1 226	1 241	1 089	57 959	35 770	10	
West Virginia	76	241	188	195	209	184	^s 162	3 906	2 689	35	
Wisconsin	239	1 351	918	844	920	986	924	37 720	23 005	10	
Wyoming	8	50	D	D	D	36	D	1 358	D	31	

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
233220, MULTIFAMILY HOUSING CONSTRUCTION										
United States	14 487 308	7 322 008	3 788 773	3 762 633	7 165 301	90 169	95 759	765 683	3	6
Alabama	271 013	189 067	79 554	109 513	81 946	1 683	1 460	14 958	21	5
Alaska	78 800	40 271	19 331	20 940	38 529	971	277	6 067	16	8
Arizona	175 892	65 915	41 933	23 982	109 977	734	988	9 485	20	20
Arkansas	48 816	31 759	18 709	13 127	17 056	220	450	6 090	16	19
California	1 104 387	464 847	323 557	166 006	639 540	6 503	4 229	56 869	4	4
Colorado	304 589	152 266	89 711	64 901	152 322	960	1 212	22 465	17	13
Connecticut	52 266	33 722	20 743	12 978	18 544	233	285	3 219	15	38
Delaware	15 225	6 904	4 004	2 900	8 321	75	—	644	11	—
District of Columbia	47 464	25 956	14 513	D	21 508	117	D	705	8	D
Florida	2 345 610	1 187 476	578 423	648 917	1 158 135	12 378	22 514	99 817	15	26
Georgia	500 238	255 061	100 333	160 829	245 176	2 006	2 606	27 388	12	13
Hawaii *	52 695	27 615	14 091	D	25 079	777	197	2 972	7	9
Idaho	72 908	43 019	26 164	D	29 889	472	625	6 636	11	12
Illinois	699 469	384 198	195 732	204 578	315 271	3 969	3 162	39 532	11	10
Indiana	218 734	121 319	51 431	73 727	97 415	915	576	6 231	8	9
Iowa	135 589	77 427	48 591	30 708	58 162	661	989	9 488	15	13
Kansas	116 071	58 343	31 760	26 584	57 728	482	1 463	6 286	3	3
Kentucky	132 891	74 904	40 049	34 855	57 987	628	5 588	6 915	12	18
Louisiana	116 045	79 046	45 471	33 615	36 999	269	806	7 313	7	1
Maine	31 533	22 078	11 554	10 523	9 455	*82	342	910	20	25
Maryland	344 490	153 921	84 925	70 032	190 569	3 434	1 434	11 369	10	8
Massachusetts	269 668	146 548	99 348	53 782	123 120	1 112	1 363	12 017	10	9
Michigan	333 202	165 686	89 829	77 424	167 516	1 085	9 701	32 589	10	1
Minnesota	227 297	85 721	40 770	46 312	141 577	410	396	4 970	18	29
Mississippi	32 439	19 614	4 809	14 805	12 825	436	D	D	Z	D
Missouri	180 186	101 315	57 858	46 223	78 871	901	1 050	9 891	7	10
Montana	24 813	15 492	9 146	7 135	9 321	322	*90	916	18	42
Nebraska	58 526	25 665	8 905	16 760	32 861	423	511	2 981	3	Z
Nevada	104 592	54 584	27 187	27 397	*50 008	*934	192	1 664	14	33
New Hampshire	27 698	13 156	6 468	7 238	14 541	150	383	2 539	7	9
New Jersey	360 783	189 058	83 845	107 749	171 725	1 890	2 276	28 955	6	7
New Mexico	D	D	25 754	24 713	D	284	D	D	D	D
New York	1 233 939	622 787	344 724	287 557	611 152	12 104	5 671	63 309	5	9
North Carolina	473 475	227 072	118 568	131 934	246 403	3 028	4 559	25 361	8	4
North Dakota	37 038	23 916	10 016	D	13 123	196	224	1 919	13	18
Ohio	717 687	324 550	131 958	220 636	393 137	2 832	5 208	35 032	12	22
Oklahoma	28 265	11 680	9 231	2 448	16 585	151	*618	1 493	32	43
Oregon	259 283	142 250	52 218	91 650	117 033	6 453	1 716	16 603	12	8
Pennsylvania	392 655	212 963	98 623	116 181	179 692	5 263	1 890	21 774	12	8
Rhode Island	22 631	16 075	8 890	7 185	6 556	77	169	1 082	14	19
South Carolina	137 716	52 154	20 095	32 059	85 562	1 013	398	2 203	6	6
South Dakota	D	D	D	D	D	D	D	D	D	D
Tennessee	341 344	179 304	88 828	100 971	162 041	720	1 845	22 004	24	6
Texas	1 023 816	496 739	244 909	250 255	537 077	4 999	6 581	55 423	5	4
Utah	182 188	81 954	50 891	32 996	100 234	562	782	11 215	21	5
Vermont	15 333	8 634	3 711	4 923	6 700	D	228	1 149	22	28
Virginia	301 000	185 656	107 254	86 198	*115 344	2 371	1 238	15 473	27	11
Washington	416 292	204 759	110 242	103 050	211 533	3 575	1 665	21 702	7	14
West Virginia	D	11 338	8 299	S	D	*106	88	1 784	31	37
Wisconsin	292 283	158 792	81 604	87 374	133 491	946	1 440	16 943	10	12
Wyoming	*14 579	*7 399	D	D	*7 181	*188	*118	*1 944	45	48

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
233220, MULTIFAMILY HOUSING CONSTRUCTION			233220, MULTIFAMILY HOUSING CONSTRUCTION		
—Con.			—Con.		
Number of establishments in business during year	7 544	3	Selected costs—Con.		
Number of proprietors and working partners	2 418	6	Cost of selected power, fuels, and lubricants	84 497	3
Total number of employees	58 896	2	Cost of electricity	33 569	5
Number of construction workers in March	37 287	2	Cost of natural gas and manufactured gas	5 825	4
Number of construction workers in May	40 635	3	Cost of gasoline and diesel fuel	42 673	2
Number of construction workers in August	42 540	4	Cost of on-highway use of gasoline and diesel fuel	36 993	3
Number of construction workers in November	39 867	3	Cost of off-highway use of gasoline and diesel fuel	5 680	3
Average number of construction workers	40 082	3	Cost of all other fuels and lubricants	2 429	5
Number of other employees in March	19 008	2	Rental cost for machinery, equipment, and buildings	90 169	3
Number of other employees in May	18 603	2	Rental cost for machinery and equipment	52 281	4
Number of other employees in August	18 821	2	Rental cost for buildings	37 888	5
Number of other employees in November	18 824	2	Selected purchased services	94 108	3
Average number of other employees	18 814	2	Purchased communication services	57 890	4
Payroll, all employees	1 766 627	2	Cost of repairs to buildings and other structures	6 965	7
Payroll, construction workers	1 022 265	3	Cost of repairs to machinery and equipment	29 254	3
Payroll, other employees	744 361	2	Value of construction work	14 487 308	3
First-quarter payroll, all employees	390 062	2	Value of construction work on government owned projects ..	1 973 821	4
Fringe benefits, all employees	332 523	3	Value of construction work on federally owned projects ..	774 720	5
Legally required expenditures	255 879	3	Value of construction work on state and locally owned projects	1 199 100	7
Voluntary expenditures	76 644	3	Value of construction work on privately owned projects	12 513 488	3
Value of business done	14 716 706	3	Beginning-of-year gross book value of depreciable assets	715 131	3
Value of construction work	14 487 308	3	Capital expenditures, other than land	95 759	6
Value of construction work subcontracted in from others ...	275 159	6	Retirements and disposition of depreciable assets	45 207	4
Other business receipts	229 398	6	End-of-year gross book value of depreciable assets	765 683	3
Net value of construction	7 322 008	3	Depreciation charges during year	89 023	4
Value added	3 788 773	2	Number of establishments with inventories	1 148	8
Selected costs	10 927 934	3	Value of construction work for establishments with inventories ..	2 937 157	11
Cost of materials, components, and supplies	3 678 136	4	End of 1997, inventories of materials and supplies	128 061	20
Cost of construction work subcontracted out to others	7 165 301	3	End of 1996, inventories of materials and supplies	138 291	21
			Number of establishments with no inventories	3 073	5
			Value of construction work for establishments with no inventories	7 858 442	3
			Number of establishments not reporting inventories	3 323	4
			Value of construction work for establishments not reporting inventories	3 691 710	4

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
233220, MULTIFAMILY HOUSING CONSTRUCTION											
Total	7 544	58 896	1 766 627	14 716 706	14 487 308	7 322 008	3 788 773	3 762 633	7 165 301	2	3
Establishments with 1 to 4 employees	S	8 719	215 059	1 809 650	1 780 498	1 051 268	608 831	471 589	729 230	5	5
Establishments with 5 to 9 employees	1 456	9 490	262 327	2 146 567	2 119 718	1 158 110	645 564	539 395	961 608	6	7
Establishments with 10 to 19 employees	782	10 243	297 906	2 824 406	2 776 877	1 376 010	722 776	700 763	1 400 867	6	6
Establishments with 20 to 49 employees	442	13 401	437 620	3 991 377	3 931 827	1 870 773	869 434	1 060 888	2 061 055	8	10
Establishments with 50 to 99 employees	90	5 977	190 275	1 696 548	1 676 489	756 918	379 618	397 359	919 571	Z	Z
Establishments with 100 to 249 employees	36	5 278	169 015	1 223 788	1 206 339	583 092	290 580	309 961	623 247	Z	Z
Establishments with 250 to 499 employees	10	3 446	118 270	655 523	D	349 215	D	D	D	Z	Z
Establishments with 500 to 999 employees	2	D	D	D	D	D	D	D	D	D	D
Establishments with 1,000 employees or more	1	D	D	D	D	D	D	D	D	D	D

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
233220, MULTIFAMILY HOUSING CONSTRUCTION											
Total	7 544	58 896	1 766 627	14 716 706	14 487 308	7 322 008	3 788 773	3 762 633	7 165 301	2	3
Establishments with value of business done less than \$25,000	S	161	1 872	S	S	S	S	S	S	27	S
Establishments with value of business done \$25,000 to \$49,999	S	S	5 592	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	S	1 074	14 993	S	S	S	S	S	S	15	S
Establishments with value of business done \$100,000 to \$249,999	1 697	3 851	78 868	283 471	278 738	225 204	152 754	77 183	S	8	7
Establishments with value of business done \$250,000 to \$499,999	1 093	4 301	101 468	393 989	385 763	289 811	201 306	S	S	8	8
Establishments with value of business done \$500,000 to \$999,999	1 176	7 167	179 947	824 902	806 793	547 038	353 332	211 815	259 755	9	7
Establishments with value of business done \$1,000,000 to \$2,499,999	971	8 312	237 785	1 504 902	1 484 222	867 991	526 255	362 415	616 231	6	6
Establishments with value of business done \$2,500,000 to \$4,999,999	496	6 672	208 308	1 717 522	1 689 221	885 319	490 184	423 436	803 902	4	6
Establishments with value of business done \$5,000,000 to \$9,999,999	335	8 528	278 350	2 282 077	2 232 738	1 209 435	615 506	643 267	1 023 304	10	13
Establishments with value of business done \$10,000,000 or more	295	18 438	659 443	7 636 981	7 537 477	3 241 067	1 411 506	1 929 065	4 296 410	2	4

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
233220, MULTIFAMILY HOUSING CONSTRUCTION								
Total	14 487 308	10 179 039	3 328 581	893 664	3	4	3	5
Building construction, total	14 283 307	10 081 198	3 312 808	889 301	3	4	3	5
Single-family houses, detached and attached	795 193	583 653	169 632	41 908	3	4	5	8
Single-family houses, detached	610 451	460 973	118 179	S	4	4	6	S
Single-family houses, attached	184 741	122 679	51 453	10 609	6	7	8	12
Apartment buildings, apartment type condominiums and cooperatives	11 543 816	8 289 501	2 514 869	739 446	3	5	4	6
All other residential buildings	338 078	203 096	S	S	11	9	S	S
Manufacturing and light industrial buildings	118 230	58 151	55 989	4 090	14	16	14	20
Manufacturing and light industrial warehouses	44 016	27 211	9 068	^s 7 736	15	19	12	46
Hotels and motels	216 326	165 430	49 523	1 372	2	2	8	9
Office buildings	290 350	134 179	136 537	19 634	6	3	13	14
All other commercial buildings, nec	305 407	204 114	84 449	16 844	6	7	8	8
Educational buildings	177 092	77 787	89 661	9 644	2	2	3	16
Health care and institutional buildings	180 672	142 954	36 670	1 049	5	6	3	7
Public safety buildings	40 368	33 679	4 256	2 432	4	4	17	5
Amusement, social, and recreational buildings	78 353	54 576	^s 22 594	1 183	14	2	49	6
All other nonresidential buildings	155 406	106 867	42 417	S	2	1	6	S
Nonbuilding construction, total	117 978	97 841	15 773	4 363	5	3	13	31
Other nonbuilding construction, nec	117 978	97 841	15 773	4 363	5	3	13	31
Construction work, nsk	86 024	X	X	X	5	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
233220, MULTIFAMILY HOUSING CONSTRUCTION											
Total	7 544	58 896	1 766 627	14 487 308	X	7 322 008	3 788 773	7 165 301	2	3	3
Establishments not specializing ..	508	5 175	164 690	1 292 008	X	606 670	293 352	685 338	9	7	7
Establishments specializing 51 percent or more	7 036	53 721	1 601 936	13 195 301	11 391 385	6 715 337	3 495 420	6 479 963	2	3	4
Apartment buildings, apartment type condominiums and cooperatives											
All establishments specializing	6 463	51 213	1 530 154	12 806 889	11 035 443	6 486 264	3 361 158	6 320 624	2	3	4
Specialization 100 percent	3 410	23 404	706 948	5 719 872	5 719 872	2 980 525	1 582 229	2 739 348	4	6	7
Specialization 90 to 99 percent ...	669	5 675	172 218	1 913 033	1 779 913	895 050	431 026	1 017 983	5	8	9
Specialization 80 to 89 percent ...	628	5 575	149 603	1 301 955	1 086 246	649 921	294 699	652 034	7	6	8
Specialization 70 to 79 percent ...	S	5 402	160 835	1 381 979	1 009 956	684 952	361 189	697 028	4	4	4
Specialization 60 to 69 percent ...	556	5 876	181 691	1 267 724	787 480	650 966	353 836	616 757	8	3	3
Specialization 51 to 59 percent ...	569	5 281	158 859	1 222 326	651 978	624 850	338 178	597 476	6	4	5
All other residential buildings											
All establishments specializing	205	1 890	56 663	302 387	269 918	177 626	103 140	124 761	11	13	15
Specialization 100 percent	162	1 224	34 108	156 078	156 078	109 911	71 200	46 167	15	19	25
Specialization 90 to 99 percent ...	S	S	S	S	S	S	S	S	S	S	S
Specialization 80 to 89 percent ...	^{§15}	213	7 204	71 059	60 484	28 750	^{§11} 247	42 309	33	33	33
Specialization 70 to 79 percent ...	11	288	10 733	60 965	43 860	27 874	12 650	33 091	10	7	3
Specialization 60 to 69 percent ...	3	111	3 511	11 358	6 860	8 353	6 066	3 005	Z	Z	Z

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
233220, MULTIFAMILY HOUSING CONSTRUCTION		
Total	14 716 706	3
Building, developing, and general contracting, total	14 179 146	3
Building construction on land owned by others—general contractor or design-builder	8 342 400	2
Building construction on land owned by you, for sale	2 660 070	12
Construction management—buildings	823 289	6
Remodeling—general contractor or design-builder	2 353 387	4
Other construction activities, nec	225 188	22
Other business activities secondary to construction activities, total	227 732	6
Building construction on land owned by you, for rent or lease (investment builder), secondary to construction activities	51 907	20
Other business activities, secondary to construction activities, nec	81 756	3
Real estate commissions and property management fees, secondary to construction activities	44 340	4
Rental or lease of properties, secondary to construction activities	49 729	9
Kind of business activity, nsk	84 638	5

Table 10. **Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
				A	B				C	D	E
233220, MULTIFAMILY HOUSING CONSTRUCTION											
Total	7 544	58 896	1 766 627	14 487 308	X	7 322 008	3 788 773	7 165 301	2	3	3
Establishments not specializing	203	1 716	48 080	205 555	X	131 557	104 267	73 998	14	17	17
Establishments specializing 51 percent or more	7 341	57 180	1 718 546	14 281 754	13 261 890	7 190 451	3 684 506	7 091 303	2	3	3
Building construction on land owned by others—general contractor or design-builder											
All establishments specializing	3 391	31 618	961 565	8 540 294	8 007 237	4 070 584	1 937 171	4 469 709	2	2	3
Specialization 100 percent	2 512	19 574	594 334	5 367 545	5 367 545	2 566 797	1 208 483	2 800 748	3	2	2
Specialization 90 to 99 percent	276	4 781	158 394	1 435 773	1 361 128	655 047	303 026	780 726	4	4	4
Specialization 80 to 89 percent	228	2 296	66 586	795 646	665 552	376 548	167 041	419 098	15	17	20
Specialization 70 to 79 percent	103	1 842	58 179	413 685	304 382	202 446	88 990	211 239	5	5	7
Specialization 60 to 69 percent	127	1 079	24 547	199 927	126 886	101 776	62 800	98 151	18	5	4
Specialization 51 to 59 percent	145	2 045	59 525	327 718	181 744	167 970	106 831	159 748	19	24	26
Building construction on land owned by you, for sale											
All establishments specializing	629	7 995	258 133	2 748 088	2 518 445	1 419 453	728 922	1 328 636	10	13	15
Specialization 100 percent	344	3 404	112 949	1 426 693	1 426 693	675 667	329 175	751 025	13	21	25
Specialization 90 to 99 percent	91	2 500	74 862	778 167	720 403	383 248	210 644	394 919	5	14	14
Specialization 80 to 89 percent	75	571	20 261	139 214	116 589	78 756	60 903	60 458	26	21	24
Specialization 70 to 79 percent	*37	331	9 527	82 609	60 534	41 526	23 660	41 082	30	22	21
Specialization 60 to 69 percent	*24	S	S	S	S	S	S	23 200	S	S	5
Specialization 51 to 59 percent	57	285	8 778	119 364	63 646	61 414	38 979	57 950	15	21	19
Construction management—buildings											
All establishments specializing	397	2 390	89 811	714 117	663 083	319 107	168 287	395 010	6	7	8
Specialization 100 percent	258	1 410	52 357	386 480	386 480	192 830	101 781	193 650	8	8	8
Specialization 90 to 99 percent	92	450	14 927	178 495	170 022	62 439	32 295	116 056	24	21	21
Specialization 80 to 89 percent	17	78	3 188	30 910	25 393	8 894	4 580	22 016	12	30	32
Specialization 70 to 79 percent	9	256	12 411	97 159	69 431	44 096	15 117	53 063	2	Z	Z
Specialization 60 to 69 percent	*10	59	2 003	3 606	2 278	1 533	2 571	2 074	18	8	8
Specialization 51 to 59 percent	12	139	4 926	17 467	9 480	9 316	11 944	8 152	10	9	7
Remodeling—general contractor or design-builder											
All establishments specializing	2 573	14 583	394 098	2 194 092	1 988 708	1 330 914	818 606	863 178	5	5	5
Specialization 100 percent	1 822	9 501	248 545	1 275 433	1 275 433	822 888	514 092	452 545	6	7	8
Specialization 90 to 99 percent	225	1 411	42 683	293 799	273 088	168 903	90 488	124 896	8	12	15
Specialization 80 to 89 percent	178	1 107	29 209	189 582	157 853	109 021	68 702	80 560	14	11	13
Specialization 70 to 79 percent	131	952	30 315	194 624	139 997	102 269	55 833	92 355	8	6	7
Specialization 60 to 69 percent	126	1 225	32 990	147 097	92 159	89 630	62 376	57 467	32	15	14
Specialization 51 to 59 percent	90	388	10 357	93 557	50 178	38 203	27 115	55 354	12	8	6

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
233220, MULTIFAMILY HOUSING CONSTRUCTION										
United States	14 487 308	4 434	9 877 516	753	1 615 572	3 050	2 994 221	3	4	4
Alabama	248 937	42	197 650	7	13 121	25	³⁸ 165	23	28	Z
Alaska	87 579	25	73 829	¹³	13 056	S	S	16	19	23
Arizona	200 573	⁴⁷	111 232	10	24 681	⁴⁰	64 660	10	13	5
Arkansas	D	²²	46 672	¹⁰	8 931	2	D	D	19	4
California	1 022 392	416	838 901	6	20 614	304	162 877	3	3	Z
Colorado	336 028	142	242 210	16	31 841	67	61 978	14	19	1
Connecticut	64 104	³⁷	36 484	19	14 201	41	13 419	14	22	2
Delaware	18 104	5	8 275	5	⁵ 629	9	4 199	20	3	64
District of Columbia	49 153	8	11 511	23	32 839	4	4 803	6	19	6
Florida	2 403 233	251	1 580 842	26	127 131	232	695 260	13	19	12
Georgia	484 445	88	251 509	21	64 790	66	168 146	12	19	1
Hawaii *	D	²²	36 609	2	D	11	D	D	6	D
Idaho	64 866	⁴²	D	5	7 011	5	D	11	D	Z
Illinois	746 817	224	565 813	30	55 422	175	125 583	12	16	9
Indiana	267 473	111	167 564	34	62 560	45	37 349	9	9	28
Iowa	102 532	67	79 432	6	12 665	27	10 435	20	25	Z
Kansas	73 267	25	28 553	¹⁷	20 357	¹⁸	24 357	3	4	3
Kentucky	153 169	50	100 477	16	39 946	15	12 745	12	17	16
Louisiana	131 673	23	87 184	15	30 894	25	13 595	6	8	1
Maine	31 793	11	24 080	³	S	4	179	26	25	S
Maryland	248 692	71	171 528	34	29 062	57	48 102	14	19	6
Massachusetts	268 257	85	182 973	23	10 969	78	74 315	7	10	23
Michigan	321 018	89	277 760	8	10 109	57	33 150	12	13	2
Minnesota	220 949	57	188 223	7	10 367	⁴¹	²² 359	17	19	29
Mississippi	34 478	4	D	8	14 531	1	D	Z	D	Z
Missouri	191 504	114	129 516	13	39 561	110	22 426	6	9	3
Montana	33 068	¹⁹	22 594	4	8 255	12	2 219	14	20	Z
Nebraska	68 354	9	D	6	22 627	3	D	2	D	Z
Nevada	129 648	22	96 504	6	25 056	21	⁸ 089	22	30	Z
New Hampshire	25 399	10	D	S	3 903	⁶	D	6	D	15
New Jersey	313 964	128	213 269	23	12 338	128	88 357	6	7	8
New Mexico	D	⁹	D	³	D	1	D	D	D	D
New York	1 250 139	599	869 368	22	31 100	416	349 670	6	9	24
North Carolina	558 506	129	310 460	30	152 378	105	95 668	7	11	Z
North Dakota	25 797	³³	20 406	4	1 241	8	4 149	11	13	18
Ohio	620 111	150	407 160	³³	48 720	117	164 231	16	25	Z
Oklahoma	37 333	³⁴	²⁰ 329	9	13 400	21	3 604	25	45	Z
Oregon	245 875	106	194 116	11	11 694	73	40 065	12	15	20
Pennsylvania	348 602	158	194 882	26	57 069	130	96 651	6	9	1
Rhode Island	21 999	³⁶	D	4	3 370	22	D	4	D	Z
South Carolina	199 418	47	98 494	22	96 619	8	4 305	3	5	2
South Dakota	2 945	2	D	2	D	1	D	Z	D	Z
Tennessee	305 684	81	191 130	17	74 415	43	40 138	23	37	Z
Texas	864 636	156	596 188	14	54 295	164	214 153	5	7	Z
Utah	186 096	59	146 710	5	5 041	³⁷	34 345	20	25	32
Vermont	18 513	²⁷	14 274	3	D	5	D	10	13	D
Virginia	488 358	130	²²¹ 677	44	199 363	67	67 317	21	43	18
Washington	403 767	157	311 961	34	28 126	133	63 680	7	9	7
West Virginia	20 025	⁶³	D	¹⁶	D	13	D	21	D	D
Wisconsin	300 838	189	250 636	10	20 859	50	29 344	10	11	39
Wyoming	28 660	⁶	D	¹⁰	14 081	2	D	25	D	17

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **All other nonresidential buildings.** Includes nonresidential buildings that are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military nonbuilding such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Manufacturing and Industrial Building Construction

1997

Issued September 1999

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1997 Economic Census

Construction

Industry Series



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Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econgguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
233310	Mfg & industrial building construction	7 280	143 066	5 128 967	33 514 342	17 202 078	10 429 844	7 296 270	309 888
153130	Operative builders (pt)	85	1 555	61 512	461 000	257 168	238 794	51 004	2 644
154120	General contractors—industrial buildings & warehouses (pt)	6 800	138 294	4 926 683	32 185 042	16 581 370	9 917 935	7 139 695	300 474
874123	Management services (pt)	395	3 216	140 772	868 300	363 541	273 115	105 571	6 770

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—	
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers		
											A
233310, MFG & INDUSTRIAL BUILDING CONSTRUCTION											
United States	7 280	143 066	107 180	101 768	106 997	111 065	108 890	5 128 967	3 322 347	1	
Alabama	104	9 024	7 103	7 643	7 542	6 859	6 369	333 749	226 403	4	
Alaska	13	121	81	57	75	109	86	5 637	3 647	3	
Arizona	104	1 568	1 151	1 023	1 219	1 128	1 236	54 876	31 340	4	
Arkansas	114	1 376	1 168	1 111	1 251	1 203	1 106	27 661	21 328	15	
California	792	9 606	6 219	5 941	5 830	6 828	6 277	407 356	211 266	4	
Colorado	107	949	589	594	555	577	627	31 007	16 496	10	
Connecticut	110	771	482	475	448	509	497	33 890	17 390	9	
Delaware	20	491	S	300	S	S	334	18 616	9 865	1	
District of Columbia	1	D	D	D	D	D	D	D	D	D	
Florida	234	3 724	2 407	2 332	2 662	2 254	2 382	133 168	57 729	7	
Georgia	266	4 532	3 467	3 149	3 447	3 644	3 629	142 383	90 015	6	
Hawaii *	6	D	D	D	D	D	D	D	D	D	
Idaho	66	4 434	3 486	3 485	3 501	3 552	3 405	164 296	116 158	1	
Illinois	389	5 402	4 171	3 528	4 004	4 731	4 421	207 048	149 121	6	
Indiana	201	5 588	4 508	4 113	4 595	4 799	4 523	204 967	156 500	4	
Iowa	82	2 308	1 844	1 677	1 812	1 974	1 912	65 812	46 577	5	
Kansas	88	1 557	1 188	1 220	1 255	1 145	1 131	42 966	31 201	15	
Kentucky	133	2 901	2 076	1 968	2 029	2 107	2 200	93 755	55 737	5	
Louisiana	77	4 145	3 490	3 156	3 354	3 479	3 717	133 000	100 712	7	
Maine	*50	897	683	598	730	777	629	26 597	17 516	22	
Maryland	41	1 204	929	810	1 091	872	943	47 015	32 320	2	
Massachusetts	125	1 139	714	702	703	772	679	50 588	27 056	20	
Michigan	339	6 095	3 994	3 789	4 128	4 163	3 897	250 510	140 399	3	
Minnesota	209	2 728	2 052	1 892	2 076	2 199	2 041	100 856	63 426	15	
Mississippi	76	1 767	1 499	1 511	1 478	1 495	1 511	46 345	35 836	11	
Missouri	136	4 031	2 826	2 830	2 665	2 985	2 823	175 380	107 980	3	
Montana	5	82	62	49	67	75	57	1 726	1 225	35	
Nebraska	54	876	715	634	694	814	719	29 712	20 963	19	
Nevada	23	169	108	S	102	S	111	5 968	3 343	19	
New Hampshire	50	480	309	279	326	315	315	11 727	5 364	20	
New Jersey	196	2 048	1 048	1 003	1 055	1 051	1 084	105 678	44 017	5	
New Mexico	*56	2 519	2 139	2 312	2 190	2 137	1 917	89 144	66 537	5	
New York	308	3 574	2 505	2 127	2 428	2 769	2 694	123 713	79 595	11	
North Carolina	220	4 654	3 687	3 452	3 660	3 506	4 131	138 262	92 543	9	
North Dakota	18	389	306	320	341	293	268	11 505	7 648	5	
Ohio	338	6 899	4 940	4 505	4 919	5 053	5 283	258 581	161 070	5	
Oklahoma	117	1 368	966	1 010	965	901	989	39 599	23 751	7	
Oregon	203	2 692	2 079	2 139	1 959	2 177	2 042	120 745	80 146	11	
Pennsylvania	311	4 998	3 833	3 584	3 911	4 028	3 810	167 950	111 587	8	
Rhode Island	*46	896	409	392	399	413	431	25 232	10 523	7	
South Carolina	165	5 723	4 756	4 795	4 869	4 711	4 650	162 169	125 209	8	
South Dakota	25	247	187	164	*176	207	202	6 462	*4 454	37	
Tennessee	174	5 678	4 499	4 319	4 353	4 680	4 642	172 689	117 213	6	
Texas	412	11 963	9 735	9 054	9 663	10 289	9 934	430 134	328 911	3	
Utah	121	1 468	1 013	977	895	1 056	1 125	52 649	31 185	6	
Vermont	9	53	35	34	33	38	*34	1 098	732	36	
Virginia	133	1 557	1 161	1 072	1 117	1 254	1 200	44 512	28 462	13	
Washington	213	3 541	2 525	2 089	2 269	2 936	2 806	159 727	94 488	5	
West Virginia	35	857	668	592	705	680	680	27 945	20 652	9	
Wisconsin	138	3 387	2 621	2 363	2 730	2 657	2 735	122 402	82 058	7	
Wyoming	*28	534	419	482	418	399	377	18 911	13 824	10	

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
233310, MFG & INDUSTRIAL BUILDING CONSTRUCTION										
United States	33 514 342	17 202 078	10 429 844	7 296 270	16 312 262	347 686	309 888	2 485 399	1	2
Alabama	1 201 729	767 241	425 793	365 511	434 488	10 740	10 404	83 764	4	9
Alaska	21 874	18 113	16 179	D	3 761	D	93	1 733	3	9
Arizona	378 572	164 075	114 556	51 861	214 497	3 577	2 414	14 199	5	4
Arkansas	297 677	179 501	120 833	59 039	118 175	2 648	2 880	23 971	10	8
California	3 820 923	1 289 705	678 448	626 363	2 531 218	27 522	22 433	166 620	5	6
Colorado	228 430	133 233	96 686	37 813	95 197	1 517	2 105	14 050	10	32
Connecticut	228 451	101 134	66 517	36 470	127 317	2 050	1 551	22 493	5	26
Delaware	186 406	63 562	40 360	D	122 844	961	S	7 195	1	S
District of Columbia	D	D	D	D	D	D	D	D	D	D
Florida	1 019 803	624 185	262 692	466 127	395 618	4 590	5 258	59 779	16	10
Georgia	1 129 785	504 931	279 435	254 188	624 854	9 687	8 425	70 369	8	15
Hawaii *	D	S	D	S	D	S	D	D	S	D
Idaho	807 425	637 230	439 260	198 052	170 195	D	D	195 907	1	D
Illinois	1 248 869	703 440	505 051	334 623	545 428	14 871	10 354	114 567	15	10
Indiana	999 809	694 642	469 113	236 705	305 166	7 335	11 806	95 897	5	9
Iowa	478 750	283 731	160 069	136 191	195 019	3 743	5 134	36 763	2	13
Kansas	236 448	136 585	84 299	9	99 864	4 795	1 728	18 816	9	15
Kentucky	687 438	338 634	195 678	144 113	348 804	7 808	6 290	44 390	4	4
Louisiana	610 393	366 307	228 364	143 075	244 085	9 619	6 385	40 434	6	6
Maine	*152 176	68 890	51 348	24 307	*83 286	1 990	1 285	18 950	18	29
Maryland	224 925	150 741	107 480	46 636	74 184	2 792	2 467	18 117	1	3
Massachusetts	414 463	172 280	93 651	D	242 204	*6 095	2 321	17 027	23	38
Michigan	2 611 698	860 189	487 544	382 850	1 751 498	15 996	22 606	162 410	4	5
Minnesota	792 363	392 961	215 313	180 736	399 402	6 977	5 384	41 640	14	4
Mississippi	254 069	177 448	93 407	86 939	76 622	1 758	2 276	20 231	6	7
Missouri	1 203 217	559 664	339 117	240 933	643 552	13 979	21 842	117 275	3	5
Montana	18 533	8 545	6 840	1 771	9 988	*103	*32	2 378	28	58
Nebraska	156 996	90 807	52 427	D	66 189	1 874	2 401	23 295	20	3
Nevada	33 822	23 235	19 888	4 989	10 587	S	D	6 563	26	D
New Hampshire	80 298	45 051	20 171	D	35 247	1 062	571	5 798	34	21
New Jersey	1 145 766	662 846	508 536	158 883	482 920	9 112	5 629	73 873	5	13
New Mexico	362 913	232 833	151 760	D	130 080	10 316	1 618	15 855	2	2
New York	900 164	419 677	246 583	191 058	480 486	6 970	7 324	60 276	12	20
North Carolina	738 270	395 784	215 147	186 786	342 486	8 369	10 377	73 880	9	10
North Dakota	72 406	54 884	18 719	D	17 522	236	800	6 232	9	8
Ohio	1 865 604	922 986	534 338	404 256	942 618	23 955	18 041	141 858	9	9
Oklahoma	162 368	119 623	76 332	D	42 745	1 856	1 567	13 536	12	11
Oregon	718 775	387 452	263 224	126 646	331 323	8 681	3 807	26 028	8	28
Pennsylvania	1 011 964	548 019	340 943	212 416	463 946	15 759	14 342	114 324	10	17
Rhode Island	D	D	343 434	D	D	*777	7 627	D	D	2
South Carolina	760 670	391 296	215 038	177 949	369 374	11 314	4 749	49 559	8	12
South Dakota	D	D	9 568	*13 438	D	182	*462	3 631	D	67
Tennessee	1 040 758	553 927	329 150	229 517	486 831	12 358	12 202	69 626	6	21
Texas	1 676 680	1 071 393	702 766	398 174	605 287	21 468	21 271	137 214	6	5
Utah	286 731	186 968	73 049	114 177	99 763	4 637	2 458	23 203	4	9
Vermont	D	D	1 966	D	2 154	58	27	579	D	14
Virginia	202 608	135 130	76 741	61 281	67 478	2 310	2 090	31 809	10	12
Washington	1 136 657	401 422	281 881	123 780	735 235	14 057	5 363	39 586	9	8
West Virginia	143 719	108 734	54 024	54 878	34 985	1 910	1 842	17 104	6	3
Wisconsin	695 461	375 974	257 970	147 699	319 487	3 991	7 320	73 808	6	15
Wyoming	77 501	69 036	54 423	D	8 465	2 987	719	6 195	2	9

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
233310, MFG & INDUSTRIAL BUILDING CONSTRUCTION			233310, MFG & INDUSTRIAL BUILDING CONSTRUCTION—Con.		
Number of establishments in business during year	7 280	3	Selected costs	23 608 532	1
Number of proprietors and working partners	1 530	7	Cost of materials, components, and supplies	7 118 406	2
Total number of employees	143 066	1	Cost of construction work subcontracted out to others	16 312 262	1
Number of construction workers in March	101 768	1	Cost of selected power, fuels, and lubricants	177 864	2
Number of construction workers in May	106 997	1	Cost of electricity	139 263	2
Number of construction workers in August	111 065	1	Cost of natural gas and manufactured gas	11 557	4
Number of construction workers in November	108 890	1	Cost of gasoline and diesel fuel	119 104	2
Average number of construction workers	107 180	1	Cost of on-highway use of gasoline and diesel fuel	94 868	2
Number of other employees in March	35 622	1	Cost of off-highway use of gasoline and diesel fuel	24 237	2
Number of other employees in May	35 584	1	Cost of all other fuels and lubricants	7 939	3
Number of other employees in August	36 081	2	Rental cost for machinery, equipment, and buildings	347 686	2
Number of other employees in November	36 255	1	Rental cost for machinery and equipment	259 950	2
Average number of other employees	35 886	1	Rental cost for buildings	87 736	3
Payroll, all employees	5 128 967	1	Selected purchased services	237 915	2
Payroll, construction workers	3 322 347	1	Purchased communication services	90 104	2
Payroll, other employees	1 806 620	1	Cost of repairs to buildings and other structures	19 269	8
First-quarter payroll, all employees	1 182 233	1	Cost of repairs to machinery and equipment	128 543	2
Fringe benefits, all employees	1 224 351	1	Value of construction work	33 514 342	1
Legally required expenditures	777 829	1	Value of construction work on government owned projects ..	3 881 570	2
Voluntary expenditures	446 522	1	Value of construction work on federally owned projects ..	1 360 012	4
Value of business done	34 038 376	1	Value of construction work on state and locally owned projects	2 521 558	2
Value of construction work	33 514 342	1	Value of construction work on privately owned projects	29 632 772	1
Value of construction work subcontracted in from others ..	2 479 077	4	Beginning-of-year gross book value of depreciable assets	2 265 831	2
Other business receipts	524 034	21	Capital expenditures, other than land	309 888	2
Net value of construction	17 202 078	1	Retirements and disposition of depreciable assets	90 320	2
Value added	10 429 844	2	End-of-year gross book value of depreciable assets	2 485 399	2
			Depreciation charges during year	252 350	2
			Number of establishments with inventories	1 356	7
			Value of construction work for establishments with inventories ..	7 293 028	3
			End of 1997, inventories of materials and supplies	89 044	9
			End of 1996, inventories of materials and supplies	71 874	9
			Number of establishments with no inventories	3 552	4
			Value of construction work for establishments with no inventories	19 255 138	2
			Number of establishments not reporting inventories	2 372	5
			Value of construction work for establishments not reporting inventories	6 966 176	3

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
	A	B	C	D	E	F	G	H	I	B	F	
233310, MFG & INDUSTRIAL BUILDING CONSTRUCTION												
Total	7 280	143 066	5 128 967	34 038 376	33 514 342	17 202 078	10 429 844	7 296 270	16 312 262	1	1	
Establishments with 1 to 4 employees	3 136	6 402	150 944	1 440 686	1 434 839	917 596	539 655	383 787	517 244	6	9	
Establishments with 5 to 9 employees	1 666	11 040	320 107	2 546 525	2 389 003	1 327 258	859 812	624 969	1 061 744	7	12	
Establishments with 10 to 19 employees	1 261	17 196	536 218	3 689 710	3 623 181	2 024 554	1 182 256	908 826	1 598 627	7	9	
Establishments with 20 to 49 employees	729	22 156	816 002	5 891 678	5 814 194	2 885 373	1 725 961	1 236 895	2 928 821	3	2	
Establishments with 50 to 99 employees	262	17 736	678 384	4 901 675	4 839 126	2 137 470	1 218 734	981 286	2 701 655	Z	Z	
Establishments with 100 to 249 employees	153	22 735	858 324	6 141 557	6 118 401	3 217 072	2 064 561	1 175 667	2 901 329	Z	Z	
Establishments with 250 to 499 employees	42	14 006	525 393	2 909 132	D	D	891 246	597 027	1 420 859	Z	D	
Establishments with 500 to 999 employees	19	13 231	493 172	3 038 192	2 937 603	1 574 950	852 415	823 124	1 362 653	Z	Z	
Establishments with 1,000 employees or more	11	18 564	750 422	3 479 223	D	D	1 095 204	564 689	1 819 330	Z	D	

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
233310, MFG & INDUSTRIAL BUILDING CONSTRUCTION											
Total	7 280	143 066	5 128 967	34 038 376	33 514 342	17 202 078	10 429 844	7 296 270	16 312 262	1	1
Establishments with value of business done less than \$25,000	S	44	S	S	D	S	S	D	D	48	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	D	S	S	D	D	S	S
Establishments with value of business done \$50,000 to \$99,999	479	723	9 874	35 542	35 417	29 799	22 194	S	S	18	17
Establishments with value of business done \$100,000 to \$249,999	S	2 701	42 376	S	S	S	S	S	S	12	S
Establishments with value of business done \$250,000 to \$499,999	1 091	4 226	87 171	386 043	382 059	296 014	177 201	122 796	S	11	10
Establishments with value of business done \$500,000 to \$999,999	1 106	7 583	169 315	786 580	777 454	586 519	376 067	219 578	190 935	9	9
Establishments with value of business done \$1,000,000 to \$2,499,999	1 457	15 431	431 045	2 268 253	2 247 998	1 557 728	895 903	682 080	690 270	7	8
Establishments with value of business done \$2,500,000 to \$4,999,999	746	13 364	464 960	2 590 917	2 538 229	1 604 323	905 906	751 106	933 905	6	9
Establishments with value of business done \$5,000,000 to \$9,999,999	469	15 326	537 495	3 248 580	3 183 854	1 697 053	1 105 227	656 552	1 486 801	3	6
Establishments with value of business done \$10,000,000 or more	616	83 509	3 384 509	24 540 150	24 167 894	11 280 707	6 853 924	4 799 040	12 887 187	Z	1

Table 7. **Value of Construction Work for Establishments With Payroll by Type of Construction: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
233310, MFG & INDUSTRIAL BUILDING CONSTRUCTION								
Total	33 514 342	22 359 127	8 099 084	3 053 807	1	2	2	2
Building construction, total	33 008 063	22 042 431	7 975 252	2 990 381	1	2	2	2
Manufacturing and light industrial buildings	17 590 062	10 914 455	4 280 143	2 395 463	1	1	2	2
Manufacturing and light industrial warehouses	7 058 148	5 421 819	1 358 864	277 466	4	5	3	8
Hotels and motels	432 789	373 322	49 580	9 887	4	Z	29	32
Office buildings	2 478 594	1 570 275	810 808	97 511	2	3	4	3
All other commercial buildings, nec	1 141 600	799 522	298 166	43 912	3	3	4	6
Commercial warehouses	1 040 691	883 412	131 005	26 275	7	8	8	6
Educational buildings	823 028	541 081	255 540	26 407	1	1	3	28
Health care and institutional buildings	862 907	464 788	355 116	43 003	3	2	6	2
All other nonresidential buildings	1 580 244	1 073 758	436 029	70 457	3	4	3	7
Nonbuilding construction, total	503 956	316 697	123 832	63 427	2	1	3	5
Other nonbuilding construction, nec	503 956	316 697	123 832	63 427	2	1	3	5
Construction work, nsk	2 324	X	X	X	14	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—			
				For all types	For specialized type				B	D	H	
				A	B							C
233310, MFG & INDUSTRIAL BUILDING CONSTRUCTION												
Total	7 280	143 066	5 128 967	33 514 342	X	17 202 078	10 429 844	16 312 262	1	1	1	
Establishments not specializing ..	1 533	35 771	1 303 293	10 376 244	X	4 638 428	2 611 816	5 737 816	2	1	1	
Establishments specializing 51 percent or more	5 747	107 295	3 825 674	23 138 098	18 385 913	12 563 651	7 818 028	10 574 447	1	2	2	
Manufacturing and light industrial buildings												
All establishments specializing	4 045	88 477	3 197 806	17 409 811	14 013 978	9 446 869	6 061 361	7 962 942	1	1	2	
Specialization 100 percent	1 743	45 726	1 628 544	5 934 603	5 934 603	4 164 932	2 772 240	1 769 671	1	2	2	
Specialization 90 to 99 percent ...	458	7 566	266 712	1 398 775	1 301 230	808 036	558 175	590 739	6	6	8	
Specialization 80 to 89 percent ...	452	8 639	318 946	2 472 131	2 034 077	1 066 963	578 233	1 405 168	5	3	2	
Specialization 70 to 79 percent ...	512	7 733	261 936	1 713 645	1 259 492	854 675	495 375	858 971	9	8	9	
Specialization 60 to 69 percent ...	521	11 818	463 621	3 795 456	2 363 070	1 693 390	1 184 848	2 102 066	4	2	1	
Specialization 51 to 59 percent ...	359	6 994	258 048	2 095 200	1 121 507	858 874	472 490	1 236 327	6	6	8	
Manufacturing and light industrial warehouses												
All establishments specializing	1 670	18 788	627 160	5 725 339	4 368 987	3 115 078	1 755 381	2 610 260	4	6	7	
Specialization 100 percent	624	5 760	199 646	1 495 030	1 495 030	893 247	530 783	601 783	7	16	20	
Specialization 90 to 99 percent ...	204	2 210	90 534	601 604	557 802	318 844	121 302	282 760	11	11	11	
Specialization 80 to 89 percent ...	119	1 430	53 650	662 223	557 733	254 556	119 090	407 667	13	18	23	
Specialization 70 to 79 percent ...	252	3 393	101 296	663 498	478 725	330 805	186 774	332 693	10	15	18	
Specialization 60 to 69 percent ...	251	2 919	91 337	770 299	468 362	438 237	246 515	332 062	15	18	16	
Specialization 51 to 59 percent ...	221	3 076	90 697	1 532 686	811 334	879 389	550 917	653 296	12	9	9	

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
233310, MFG & INDUSTRIAL BUILDING CONSTRUCTION		
Total	34 038 376	1
Building, developing, and general contracting, total	32 792 760	1
Building construction on land owned by others—general contractor or design-builder	26 488 058	1
Building construction on land owned by you, for sale	541 093	22
Construction management—buildings	2 950 493	4
Remodeling—general contractor or design-builder	2 813 117	4
Other construction activities, nec	725 770	5
Other business activities secondary to construction activities, total	519 847	22
Other business activities, secondary to construction activities, nec	519 847	22

Table 10. Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
233310, MFG & INDUSTRIAL BUILDING CONSTRUCTION											
Total	7 280	143 066	5 128 967	33 514 342	X	17 202 078	10 429 844	16 312 262	1	1	1
Establishments not specializing	362	7 650	290 356	1 688 020	X	982 805	802 927	705 215	4	11	10
Establishments specializing 51 percent or more	6 918	135 415	4 838 611	31 826 323	28 431 824	16 219 275	9 626 917	15 607 048	1	1	1
Building, developing, and general contracting, total											
All establishments specializing	6 918	135 415	4 838 611	31 826 323	28 431 824	16 219 275	9 626 917	15 607 048	1	1	1
Specialization 100 percent	4 512	77 589	2 698 553	16 017 282	16 017 282	8 761 546	5 301 998	7 255 736	2	2	2
Specialization 90 to 99 percent	699	18 179	656 818	4 435 442	4 179 549	2 273 202	1 311 688	2 162 240	3	3	3
Specialization 80 to 89 percent	699	15 458	552 468	3 788 050	3 158 386	1 902 458	1 069 870	1 885 592	5	4	6
Specialization 70 to 79 percent	461	12 652	475 821	3 817 685	2 813 990	1 571 661	774 635	2 246 024	3	2	1
Specialization 60 to 69 percent	392	8 127	312 228	2 464 775	1 558 824	1 019 676	611 886	1 445 099	5	5	6
Specialization 51 to 59 percent	154	3 410	142 723	1 303 089	703 792	690 732	556 840	612 357	8	5	7
Building construction on land owned by others—general contractor or design-builder											
All establishments specializing	5 313	121 802	4 344 118	28 145 741	25 319 866	14 354 413	8 291 521	13 791 328	1	1	1
Specialization 100 percent	3 445	70 956	2 461 015	14 278 306	14 278 306	7 970 372	4 787 162	6 307 934	2	2	2
Specialization 90 to 99 percent	575	16 794	612 446	4 185 587	3 947 907	2 124 177	1 210 228	2 061 411	3	3	3
Specialization 80 to 89 percent	573	13 864	499 806	3 356 821	2 794 051	1 730 083	958 557	1 626 739	5	3	3
Specialization 70 to 79 percent	340	10 427	392 457	3 385 134	2 491 168	1 343 813	631 556	2 041 321	3	2	1
Specialization 60 to 69 percent	275	7 169	282 957	2 277 734	1 441 400	897 200	527 954	1 380 534	5	5	6
Specialization 51 to 59 percent	105	2 592	95 438	662 157	367 034	288 769	176 064	373 388	10	10	11
Building construction on land owned by you, for sale											
All establishments specializing	80	374	11 900	\$278 062	\$252 713	93 575	57 048	\$184 488	28	43	52
Specialization 100 percent	\$31	135	5 898	\$189 577	\$189 577	\$43 609	\$24 246	\$145 968	29	61	65
Specialization 90 to 99 percent	5	D	D	D	D	D	2 708	D	D	D	D
Specialization 80 to 89 percent	2	D	D	D	D	D	D	D	D	D	D
Specialization 70 to 79 percent	S	S	S	S	S	S	D	S	S	S	S
Specialization 60 to 69 percent	\$36	\$121	\$2 703	\$50 431	\$32 471	\$35 669	\$26 019	\$14 762	54	54	56
Construction management—buildings											
All establishments specializing	412	3 461	170 834	1 806 516	1 483 658	850 415	689 303	956 101	5	7	10
Specialization 100 percent	296	1 992	94 683	852 971	852 971	343 297	222 525	509 674	5	3	2
Specialization 90 to 99 percent	\$29	226	10 997	D	53 767	D	D	D	8	D	D
Specialization 80 to 89 percent	\$26	\$362	\$11 003	\$202 893	\$177 350	\$53 790	\$44 716	\$149 103	42	58	63
Specialization 70 to 79 percent	23	543	25 928	162 552	122 649	64 381	43 009	98 171	1	1	Z
Specialization 60 to 69 percent	\$9	\$71	\$2 108	\$25 651	D	6 172	7 178	S	55	59	S
Specialization 51 to 59 percent	\$29	266	26 115	D	D	D	D	D	15	D	D
Remodeling—general contractor or design-builder											
All establishments specializing	1 113	9 779	311 758	1 596 004	1 375 587	920 873	589 045	675 131	6	6	7
Specialization 100 percent	741	4 507	136 957	696 427	696 427	404 268	268 064	292 159	9	11	16
Specialization 90 to 99 percent	90	1 144	33 108	187 977	173 417	113 643	70 873	74 334	13	11	17
Specialization 80 to 89 percent	98	1 204	40 463	202 900	166 636	108 115	63 466	94 784	23	14	10
Specialization 70 to 79 percent	91	1 606	55 600	262 187	194 314	162 165	99 126	100 021	20	17	8
Specialization 60 to 69 percent	72	767	24 460	110 959	69 511	80 636	50 734	30 323	17	9	10
Specialization 51 to 59 percent	20	552	21 170	135 554	75 281	52 046	36 781	83 509	2	Z	Z

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Value of construction work done in this state	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
		Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E	
		A	B	C	D	E	F	G			
233310, MFG & INDUSTRIAL BUILDING CONSTRUCTION											
United States	33 514 342	5 067	23 725 449	2 049	6 310 540	2 165	3 478 354	1	2	Z	
Alabama	1 080 420	82	619 353	50	104 738	22	356 328	7	12	Z	
Alaska	62 907	6	19 506	15	42 464	⁵⁷	⁹³⁸	4	Z	5	
Arizona	561 785	49	334 635	23	206 286	53	20 864	4	7	Z	
Arkansas	182 142	100	120 508	33	56 051	12	5 582	16	25	1	
California	3 440 637	477	2 749 438	31	340 605	310	350 595	3	4	Z	
Colorado	330 551	55	194 625	23	110 385	⁵¹	25 541	4	7	1	
Connecticut	260 593	100	221 139	²⁴	34 834	11	⁴ 621	2	3	1	
Delaware	169 305	16	100 325	34	37 143	4	31 836	1	2	2	
District of Columbia	3 685	—	—	4	D	1	D	Z	—	D	
Florida	920 179	149	661 024	59	176 636	85	82 518	17	23	1	
Georgia	1 090 761	160	786 032	95	223 354	106	81 375	11	15	1	
Hawaii *	S	1	D	3	D	5	D	S	D	D	
Idaho	776 661	⁴⁸	159 672	²⁷	D	17	D	1	5	D	
Illinois	1 208 663	280	937 449	99	166 165	107	105 049	14	19	1	
Indiana	1 207 426	141	876 808	86	276 324	45	54 295	7	10	Z	
Iowa	381 922	55	296 798	36	76 298	27	8 826	2	2	9	
Kansas	281 419	74	209 205	27	65 046	14	⁷ 168	8	10	Z	
Kentucky	861 206	106	539 498	90	243 460	27	78 248	2	4	3	
Louisiana	521 420	50	329 231	33	71 256	27	120 933	7	10	1	
Maine	170 314	³⁵	¹³⁹ 612	6	26 694	15	4 008	39	47	Z	
Maryland	253 778	25	178 959	19	72 383	15	2 436	1	1	1	
Massachusetts	403 700	86	332 980	67	47 287	39	23 433	19	22	31	
Michigan	2 908 857	268	2 352 764	48	363 549	71	192 544	5	6	Z	
Minnesota	593 542	140	496 572	28	43 918	⁷⁰	53 052	10	12	1	
Mississippi	284 626	45	181 203	31	64 967	32	38 456	5	7	Z	
Missouri	745 632	86	612 809	58	79 656	50	53 166	3	3	3	
Montana	26 176	5	14 947	7	11 229	—	—	12	22	1	
Nebraska	221 626	47	134 036	36	86 650	⁷	940	10	17	1	
Nevada	86 998	18	20 697	37	55 284	⁶	¹¹ 017	8	4	Z	
New Hampshire	68 159	33	D	²²	D	17	D	15	D	D	
New Jersey	755 854	160	607 795	65	123 821	34	24 238	3	4	1	
New Mexico	377 538	24	234 195	13	28 817	³²	114 525	1	2	Z	
New York	920 425	181	575 460	43	277 122	125	67 843	7	11	1	
North Carolina	921 364	168	559 733	97	296 000	52	65 630	5	8	2	
North Dakota	89 251	14	53 949	²¹	31 969	3	3 333	6	9	2	
Ohio	1 772 426	262	1 437 536	87	238 383	75	96 507	9	10	2	
Oklahoma	190 593	⁶⁴	94 268	23	68 534	50	27 791	12	24	Z	
Oregon	895 078	183	514 932	37	358 294	18	21 852	7	13	2	
Pennsylvania	1 114 271	250	773 335	80	210 955	58	129 980	8	11	Z	
Rhode Island	D	⁴¹	D	¹⁴	9 348	⁴	D	D	D	5	
South Carolina	689 581	119	422 533	68	177 897	46	89 151	6	9	1	
South Dakota	D	¹²	D	11	19 203	12	D	D	D	3	
Tennessee	946 818	141	690 998	68	190 263	34	65 557	5	7	2	
Texas	1 934 909	266	1 375 161	71	353 451	146	206 298	4	5	Z	
Utah	314 621	77	195 654	³⁸	46 197	⁴⁴	72 769	3	4	1	
Vermont	¹⁴ 812	7	D	⁵	S	2	D	49	D	S	
Virginia	677 103	95	163 722	56	487 131	38	26 249	2	9	Z	
Washington	915 678	116	704 165	45	129 620	94	81 893	5	7	1	
West Virginia	144 481	27	94 849	26	40 831	8	8 801	6	9	3	
Wisconsin	669 575	98	575 787	20	D	38	D	5	6	D	
Wyoming	52 326	²⁵	44 859	11	5 526	3	1 941	3	4	3	

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **All other nonresidential buildings.** Includes nonresidential buildings that are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military non-building such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 7353 Heavy construction equipment, rental and leasing (pt)
- 8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

- 1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

- 1721 Painting and paper hanging special trade contractors
- 1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Commercial and Institutional Building Construction

1997

Issued January 2000

EC97C-2333B

1997 Economic Census

Construction

Industry Series



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Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
233320	Commercial & institutional building construction	37 430	528 173	19 176 160	173 205 680	71 252 816	44 363 544	28 914 436	1 144 393
152210	General contr—residential bldgs, other than single-family (pt)	1 112	13 807	500 308	4 882 751	2 422 387	1 614 314	853 544	25 284
153140	Operative builders (pt)	441	3 743	132 383	1 727 950	1 233 152	1 134 451	337 753	11 994
154110	General contractors—industrial buildings & warehouses (pt)	1 910	19 856	638 605	5 468 494	2 678 384	1 679 881	1 054 897	56 063
154200	General contractors—nonresidential bldgs, exc indust bldgs/whses	30 817	472 611	17 205 060	157 182 656	62 498 744	38 109 604	26 002 242	1 011 750
874124	Management services (pt)	3 150	18 156	699 805	3 943 827	2 420 149	1 825 292	666 000	39 303

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees			Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—	
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers			
										A		B
233320, COMMERCIAL & INSTITUTIONAL BUILDING CONSTRUCTION												
United States	37 430	528 173	359 981	334 226	357 846	382 713	365 138	19 176 160	10 797 116	1		
Alabama	620	12 365	8 965	8 765	8 917	9 261	8 917	353 557	223 420	6		
Alaska	169	1 755	1 223	901	1 165	1 573	1 251	80 619	54 249	8		
Arizona	684	8 571	4 878	4 538	4 667	5 152	5 154	301 571	132 227	3		
Arkansas	296	5 503	4 230	3 899	4 432	4 660	3 929	143 088	88 820	9		
California	3 722	48 044	31 204	29 386	30 394	33 074	31 963	2 043 913	1 105 505	2		
Colorado	722	10 949	6 553	6 123	6 385	6 981	6 724	418 987	192 516	3		
Connecticut	421	4 589	2 726	2 460	2 581	3 171	2 694	215 916	101 770	3		
Delaware	98	1 412	972	875	928	1 067	1 019	48 317	29 871	11		
District of Columbia	57	D	D	D	D	D	D	D	D	D		
Florida	1 975	25 772	16 274	15 489	15 541	16 778	17 286	845 163	423 086	3		
Georgia	1 195	18 670	12 527	12 074	12 622	12 978	12 432	663 789	345 862	3		
Hawaii*	210	D	2 400	2 374	2 317	2 416	2 493	D	D	D		
Idaho	368	D	D	D	D	D	D	79 789	52 592	D		
Illinois	1 439	19 797	13 430	12 307	13 577	14 589	13 248	817 959	499 422	2		
Indiana	842	12 906	9 368	8 170	9 137	10 514	9 652	442 820	279 203	5		
Iowa	579	7 442	5 814	5 513	5 607	6 243	5 895	227 864	164 324	5		
Kansas	385	6 045	4 474	4 270	4 552	4 584	4 489	181 513	112 013	6		
Kentucky	532	6 918	D	D	5 073	5 499	5 437	190 596	121 643	6		
Louisiana	526	7 489	5 789	5 371	6 130	6 127	5 529	194 948	121 031	9		
Louisiana	239	1 477	1 029	873	979	1 055	1 209	38 961	24 054	12		
Maine												
Maryland	910	15 299	10 100	9 810	10 172	10 538	9 881	558 637	296 674	2		
Massachusetts	767	10 398	6 275	5 630	6 214	6 735	6 523	459 524	228 917	3		
Michigan	1 261	12 496	8 638	8 123	8 688	9 297	8 444	474 239	264 675	3		
Minnesota	702	10 428	7 319	6 259	7 330	8 223	7 465	434 604	285 175	4		
Mississippi	318	7 049	5 581	5 550	5 683	5 695	5 395	221 762	144 351	4		
Missouri	746	16 486	12 534	11 353	12 612	13 443	12 727	527 845	322 037	4		
Montana	166	1 585	1 264	971	1 127	1 487	1 469	D	D	9		
Nebraska	318	3 788	2 948	D	3 087	D	2 883	113 821	74 272	8		
Nevada	254	5 996	4 436	4 294	4 755	4 551	4 143	287 473	203 157	7		
New Hampshire	131	2 131	1 410	1 296	1 353	1 510	1 479	76 540	35 362	5		
New Jersey	918	12 320	7 872	7 544	8 171	8 249	7 524	540 613	293 666	3		
New Mexico	331	3 072	2 218	2 164	2 118	2 395	2 197	D	D	7		
New York	2 743	31 168	18 714	16 084	18 496	20 623	19 652	1 326 237	646 693	4		
North Carolina	919	17 929	12 213	11 448	12 216	12 990	12 698	607 909	321 427	4		
North Dakota	171	1 902	D	D	1 582	1 787	1 878	D	D	13		
Ohio	1 582	19 713	13 151	12 483	13 284	13 868	12 971	705 537	408 422	3		
Oklahoma	468	6 363	4 878	4 835	4 873	4 880	4 924	171 905	104 145	7		
Oregon	635	6 456	4 473	4 112	4 304	4 706	4 706	263 186	163 376	6		
Pennsylvania	1 317	21 534	14 719	13 258	14 149	15 965	15 503	819 785	485 052	3		
Rhode Island	91	1 371	678	651	634	750	677	64 411	19 746	5		
South Carolina	355	6 699	4 797	4 908	4 713	4 972	4 595	194 720	108 530	4		
South Dakota	208	2 345	D	D	D	2 240	D	D	42 802	6		
Tennessee	603	12 450	8 909	8 539	9 133	9 395	8 568	433 040	235 680	5		
Texas	2 857	35 917	24 052	22 460	24 198	24 989	24 561	1 178 677	606 620	3		
Utah	330	5 421	3 857	3 453	3 616	4 126	4 232	184 867	113 326	7		
Vermont	121	1 098	761	700	703	833	809	35 432	20 652	11		
Virginia	1 018	16 163	10 654	10 540	10 713	10 865	10 498	543 674	269 492	3		
Washington	1 084	14 733	10 315	9 390	10 369	11 249	10 251	543 225	341 591	3		
West Virginia	247	D	D	D	2 233	2 410	2 446	67 715	49 468	D		
Wisconsin	663	13 451	9 963	8 696	10 065	10 729	10 360	519 349	339 862	5		
Wyoming	115	953	D	D	D	D	D	22 602	D	8		

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
233320. COMMERCIAL & INSTITUTIONAL BUILDING CONSTRUCTION										
United States	173 205 680	71 252 816	44 363 544	28 914 436	101 952 864	1 154 632	1 144 393	8 420 319	1	2
Alabama	3 671 344	1 732 672	858 759	891 334	1 938 672	22 412	32 524	186 008	5	5
Alaska	438 256	254 907	143 065	D	183 349	D	7 365	45 398	3	10
Arizona	3 207 554	1 092 394	646 530	461 056	2 115 160	19 883	15 408	132 064	4	6
Arkansas	1 581 357	767 698	428 141	346 693	813 659	12 702	13 471	84 827	17	19
California	17 972 242	6 543 901	4 315 239	2 376 960	11 428 343	122 245	105 980	705 918	2	4
Colorado	4 097 791	1 396 728	871 505	624 008	2 701 063	20 692	25 516	164 610	3	4
Connecticut	2 053 545	726 570	477 605	270 198	1 326 976	10 879	8 688	80 845	3	4
Delaware	656 863	221 801	138 357	D	435 063	2 070	3 719	28 917	16	26
District of Columbia	D	D	D	D	D	3 543	D	26 128	D	D
Florida	8 209 136	3 224 905	2 028 694	1 272 181	4 984 231	57 575	39 172	288 753	4	5
Georgia	7 877 480	3 294 857	1 922 128	1 427 110	4 582 623	77 405	41 287	263 107	3	10
Hawaii *	D	591 579	D	D	D	14 680	D	D	2	D
Idaho	688 850	326 270	185 048	D	362 579	D	D	37 771	5	D
Illinois	7 622 243	2 792 119	1 916 952	961 727	4 830 124	43 064	44 135	357 676	4	4
Indiana	3 221 499	1 540 803	996 205	588 727	1 680 696	22 423	26 792	220 630	6	4
Iowa	1 509 129	829 593	444 435	400 534	979 536	12 901	22 659	155 115	4	8
Kansas	1 643 072	718 155	356 845	D	624 917	12 702	15 409	130 559	6	6
Kentucky	1 546 834	712 638	435 225	283 717	834 196	12 721	11 055	89 688	7	12
Louisiana	1 516 624	718 539	420 850	313 290	798 086	10 876	12 022	97 500	7	17
Maine	305 850	162 503	92 989	73 147	143 347	2 121	4 785	26 710	11	19
Maryland	5 069 038	2 162 221	1 386 307	825 685	2 906 817	42 678	26 240	205 154	2	3
Massachusetts	5 206 937	1 858 306	1 256 814	D	3 348 632	39 636	S	216 045	6	S
Michigan	4 691 150	1 841 560	1 136 241	734 559	2 849 590	23 324	27 334	253 987	4	5
Minnesota	4 205 630	1 618 519	1 004 894	683 656	2 587 111	21 732	20 814	174 208	3	5
Mississippi	1 759 778	919 814	460 186	471 620	839 964	11 647	D	D	4	D
Missouri	4 526 190	1 794 585	859 331	967 587	2 731 605	22 318	31 250	229 342	6	5
Montana	352 658	181 027	103 054	80 551	171 631	4 477	3 458	25 833	8	20
Nebraska	811 644	461 399	274 310	D	350 244	5 093	8 661	76 306	5	5
Nevada	2 357 883	1 339 677	1 144 251	218 406	1 018 206	13 958	D	96 510	1	D
New Hampshire	605 520	254 031	169 833	D	351 489	4 317	4 547	43 409	6	5
New Jersey	4 345 635	2 148 785	1 691 843	726 720	2 196 849	27 443	23 219	181 371	2	4
New Mexico	D	D	199 083	D	D	5 484	D	D	D	D
New York	11 335 125	4 098 452	3 006 591	1 459 728	7 236 674	64 941	60 100	489 476	4	8
North Carolina	5 362 934	2 293 502	1 220 757	1 092 447	3 069 432	36 015	52 970	445 693	3	13
North Dakota	274 651	166 483	83 930	D	108 168	3 008	5 656	40 304	9	18
Ohio	5 682 205	2 495 430	1 658 726	940 113	3 186 775	38 950	42 484	322 114	2	5
Oklahoma	1 646 546	794 896	457 633	D	851 650	11 487	9 750	66 659	7	5
Oregon	2 686 263	1 013 015	577 403	463 588	1 673 248	26 321	29 247	125 291	5	26
Pennsylvania	7 026 616	2 967 443	1 893 156	1 138 910	4 059 173	49 440	52 154	350 582	3	7
Rhode Island	D	D	256 339	D	D	2 772	2 595	D	D	15
South Carolina	1 656 716	876 636	525 772	356 487	780 080	8 098	10 839	65 315	6	9
South Dakota	D	D	D	D	D	D	D	D	D	D
Tennessee	3 867 887	1 526 840	816 320	720 239	2 341 046	20 690	28 963	156 378	4	9
Texas	12 574 184	5 042 088	3 077 203	2 015 494	7 532 096	81 495	65 559	467 126	6	5
Utah	2 117 642	789 057	464 290	340 226	1 328 584	10 321	10 107	81 952	7	9
Vermont	D	D	55 762	D	192 111	D	2 580	17 646	D	27
Virginia	4 566 645	1 834 048	1 080 434	799 822	2 732 596	30 825	31 749	262 726	3	5
Washington	4 212 206	1 762 478	966 456	834 143	2 449 727	31 076	20 353	169 514	4	3
West Virginia	D	214 267	146 031	80 224	D	3 431	6 241	51 681	7	6
Wisconsin	3 497 723	1 788 445	1 104 459	711 185	1 709 278	16 021	41 149	299 438	4	7
Wyoming	153 533	83 692	D	D	69 841	1 176	1 905	21 223	7	18

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
233320, COMMERCIAL & INSTITUTIONAL BUILDING CONSTRUCTION			233320, COMMERCIAL & INSTITUTIONAL BUILDING CONSTRUCTION—Con.		
Number of establishments in business during year	37 430	1	Selected costs	130 867 296	1
Number of proprietors and working partners	9 072	3	Cost of materials, components, and supplies	28 087 276	1
Total number of employees	528 173	1	Cost of construction work subcontracted out to others	101 952 864	1
Number of construction workers in March	334 226	1	Cost of selected power, fuels, and lubricants	827 160	1
Number of construction workers in May	357 846	1	Cost of electricity	247 128	1
Number of construction workers in August	382 713	1	Cost of natural gas and manufactured gas	51 257	2
Number of construction workers in November	365 138	1	Cost of gasoline and diesel fuel	494 585	1
Average number of construction workers	359 981	1	Cost of on-highway use of gasoline and diesel fuel	415 907	1
Number of other employees in March	166 616	1	Cost of off-highway use of gasoline and diesel fuel	78 678	3
Number of other employees in May	166 153	1	Cost of all other fuels and lubricants	34 190	3
Number of other employees in August	169 692	1	Rental cost for machinery, equipment, and buildings	1 154 632	1
Number of other employees in November	170 310	1	Rental cost for machinery and equipment	742 210	1
Average number of other employees	168 193	1	Rental cost for buildings	412 422	2
Payroll, all employees	19 176 160	Z	Selected purchased services	1 061 556	1
Payroll, construction workers	10 797 116	1	Purchased communication services	502 625	1
Payroll, other employees	8 379 046	1	Cost of repairs to buildings and other structures	84 763	2
First-quarter payroll, all employees	4 266 082	1	Cost of repairs to machinery and equipment	474 167	2
Fringe benefits, all employees	4 524 436	1	Value of construction work	173 205 680	1
Legally required expenditures	2 731 214	1	Value of construction work on government owned projects ..	49 117 208	1
Voluntary expenditures	1 793 222	1	Value of construction work on federally owned projects ..	10 927 349	2
Value of business done	175 230 832	1	Value of construction work on state and locally owned projects	38 189 856	1
Value of construction work	173 205 680	1	Value of construction work on privately owned projects	124 088 472	1
Value of construction work subcontracted in from others ..	7 712 281	2	Beginning-of-year gross book value of depreciable assets	7 617 786	2
Other business receipts	2 025 165	2	Capital expenditures, other than land	1 144 393	2
Net value of construction	71 252 816	1	Retirements and disposition of depreciable assets	341 859	4
Value added	44 363 544	1	End-of-year gross book value of depreciable assets	8 420 319	2
			Depreciation charges during year	808 477	1
			Number of establishments with inventories	6 785	3
			Value of construction work for establishments with inventories ..	38 467 924	1
			End of 1997, inventories of materials and supplies	454 118	4
			End of 1996, inventories of materials and supplies	381 487	3
			Number of establishments with no inventories	17 421	2
			Value of construction work for establishments with no inventories	103 160 640	1
			Number of establishments not reporting inventories	13 225	2
			Value of construction work for establishments not reporting inventories	31 577 106	2

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
233320, COMMERCIAL & INSTITUTIONAL BUILDING CONSTRUCTION											
Total	37 430	528 173	19 176 160	175 230 832	173 205 680	71 252 816	44 363 544	28 914 436	101 952 864	1	1
Establishments with 1 to 4 employees	S	34 252	864 106	8 269 150	8 188 070	4 746 040	2 796 080	2 031 039	3 442 030	3	4
Establishments with 5 to 9 employees	7 644	49 651	1 415 241	11 391 964	11 296 544	5 856 541	3 754 794	2 197 167	5 440 004	3	3
Establishments with 10 to 19 employees	5 861	77 559	2 561 567	20 124 154	19 928 242	9 441 152	5 646 849	3 990 216	10 487 090	3	3
Establishments with 20 to 49 employees	4 242	127 325	4 607 685	39 177 372	38 755 776	16 523 031	10 297 088	6 647 541	22 232 744	2	2
Establishments with 50 to 99 employees	1 276	86 140	3 340 242	30 695 236	30 367 754	11 601 267	7 108 217	4 820 533	18 766 486	1	1
Establishments with 100 to 249 employees	537	78 338	3 327 446	34 437 160	34 175 600	11 493 081	7 184 904	4 569 740	22 682 518	1	1
Establishments with 250 to 499 employees	100	33 567	1 399 867	14 714 887		D	D	D	D	Z	D
Establishments with 500 to 999 employees	38	25 107	1 077 452	11 402 214		D	D	D	D	Z	D
Establishments with 1,000 employees or more	10	16 234	582 556	5 018 699	4 889 407	1 411 148	734 718	805 722	3 478 259	Z	Z

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
233320, COMMERCIAL & INSTITUTIONAL BUILDING CONSTRUCTION											
Total	37 430	528 173	19 176 160	175 230 832	173 205 680	71 252 816	44 363 544	28 914 436	101 952 864	1	1
Establishments with value of business done less than \$25,000	S	S	S	S	D	S	S	D	D	S	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	D	S	S	D	D	S	S
Establishments with value of business done \$50,000 to \$99,999	S	3 488	47 796	S	S	S	S	S	S	8	S
Establishments with value of business done \$100,000 to \$249,999	5 539	12 166	193 369	918 005	904 964	714 342	472 455	254 927	S	6	5
Establishments with value of business done \$250,000 to \$499,999	S	19 784	402 133	1 929 370	1 911 553	1 440 525	919 877	538 464	S	5	4
Establishments with value of business done \$500,000 to \$999,999	5 465	31 520	758 102	3 909 247	3 861 958	2 666 775	1 724 492	989 572	1 195 184	4	4
Establishments with value of business done \$1,000,000 to \$2,499,999	6 670	62 835	1 817 220	10 815 895	10 663 441	6 589 490	4 138 695	2 603 248	4 073 952	3	3
Establishments with value of business done \$2,500,000 to \$4,999,999	3 623	60 663	1 958 728	12 679 482	12 549 561	6 887 097	4 104 198	2 912 820	5 662 464	3	4
Establishments with value of business done \$5,000,000 to \$9,999,999	2 758	67 304	2 433 978	19 253 970	19 030 582	8 727 290	5 238 070	3 712 608	10 303 292	3	4
Establishments with value of business done \$10,000,000 or more	3 364	269 305	11 552 007	125 470 440	124 031 128	44 023 084	27 623 814	17 838 590	80 008 040	1	1

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
233320, COMMERCIAL & INSTITUTIONAL BUILDING CONSTRUCTION								
Total	173 205 680	113 315 547	51 530 519	6 063 728	1	1	1	2
Building construction, total	166 818 246	110 618 170	50 325 006	5 875 070	1	1	1	2
Single-family houses, detached and attached	2 690 846	1 473 065	1 000 110	217 672	3	4	5	6
Single-family houses, detached	2 178 478	1 194 685	819 960	163 833	3	5	5	7
Single-family houses, attached	512 368	278 380	180 150	53 839	5	5	12	15
Apartment buildings, apartment type condominiums and cooperatives	4 081 493	2 905 159	1 016 097	160 237	2	2	4	7
Manufacturing and light industrial buildings	8 083 739	5 201 932	2 425 390	456 417	1	2	2	3
Manufacturing and light industrial warehouses	3 325 768	2 428 651	776 335	120 783	1	2	3	8
Hotels and motels	8 313 559	6 433 138	1 679 856	200 564	3	2	7	19
Office buildings	36 147 979	21 235 715	13 524 406	1 387 858	1	2	2	4
All other commercial buildings, nec	32 715 012	21 866 915	9 631 103	1 216 994	2	2	2	4
Commercial warehouses	6 929 460	5 465 600	1 215 709	248 151	4	3	10	12
Religious buildings	4 324 007	2 870 724	1 342 559	110 724	3	4	3	18
Educational buildings	23 974 844	15 587 110	7 893 507	494 227	2	3	2	5
Health care and institutional buildings	17 466 710	11 187 636	5 917 408	361 666	1	1	2	3
Public safety buildings	5 345 602	4 183 179	1 064 693	97 730	2	2	5	7
Farm buildings, nonresidential	1 904 128	1 508 380	272 836	122 912	7	7	11	13
Amusement, social, and recreational buildings	6 529 907	5 141 460	1 275 033	113 414	2	1	7	15
Other building construction	3 429 673	1 984 749	895 522	549 401	3	2	8	2
Nonbuilding construction, total	4 091 548	2 697 377	1 205 513	188 658	1	1	2	5
Highways, streets, and related work	812 607	521 335	236 599	54 674	3	2	6	4
Bridges, tunnels, and elevated highways	506 049	251 190	228 742	26 118	1	3	Z	2
Other nonbuilding construction, nec	2 772 891	1 924 852	740 173	107 866	1	1	3	9
Construction work, nsk	2 295 888	X	X	X	2	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
233320, COMMERCIAL & INSTITUTIONAL BUILDING CONSTRUCTION											
Total	37 430	528 173	19 176 160	173 205 680	X	71 252 816	44 363 544	101 952 864	1	1	1
Establishments not specializing ..	9 221	227 514	8 456 900	75 957 365	X	29 945 861	18 185 616	46 011 503	1	1	1
Establishments specializing 51 percent or more	28 210	300 659	10 719 262	97 248 317	79 230 015	41 306 956	26 177 929	55 941 361	1	1	1
Hotels and motels											
All establishments specializing	1 108	14 850	555 067	5 336 593	4 499 938	2 572 384	1 699 956	2 764 209	5	6	8
Specialization 100 percent	527	7 186	304 506	2 593 469	2 593 469	1 538 205	1 184 309	1 055 264	3	3	3
Specialization 90 to 99 percent ...	83	932	32 590	240 813	224 215	116 099	69 367	124 714	7	9	11
Specialization 80 to 89 percent ...	S	1 405	44 590	403 713	338 132	182 836	S	220 877	7	6	2
Specialization 70 to 79 percent ...	124	2 035	66 638	931 858	675 330	253 244	117 736	678 614	25	27	30
Specialization 60 to 69 percent ...	158	1 670	50 968	505 167	311 664	208 993	89 552	296 174	23	30	33
Specialization 51 to 59 percent ...	S	1 621	55 774	661 573	357 128	273 007	148 608	388 566	8	4	3
Office buildings											
All establishments specializing	5 530	66 384	2 642 476	26 385 309	21 147 589	9 874 999	6 678 825	16 510 310	2	2	2
Specialization 100 percent	2 307	21 190	814 381	6 293 039	6 293 039	2 804 337	1 928 885	3 488 702	6	6	7
Specialization 90 to 99 percent ...	571	7 270	340 534	5 074 920	4 690 949	1 854 248	1 414 833	3 220 672	6	4	3
Specialization 80 to 89 percent ...	580	6 398	258 158	2 976 921	2 497 607	898 770	532 419	2 078 150	7	4	4
Specialization 70 to 79 percent ...	892	11 597	441 402	3 531 528	2 581 056	1 260 372	876 260	2 271 156	7	5	4
Specialization 60 to 69 percent ...	596	12 991	513 113	5 531 461	3 467 730	2 154 859	1 336 418	3 376 602	3	1	1
Specialization 51 to 59 percent ...	583	6 938	274 889	2 977 440	1 617 209	902 414	590 009	2 075 026	6	2	1
All other commercial buildings, nec											
All establishments specializing	9 467	88 997	3 100 515	27 163 363	22 982 789	11 799 808	7 168 250	15 363 555	2	2	3
Specialization 100 percent	4 831	40 302	1 376 977	11 059 298	11 059 298	5 262 941	3 317 164	5 796 357	4	4	5
Specialization 90 to 99 percent ...	891	8 338	319 213	3 048 609	2 867 729	1 164 559	640 244	1 884 050	5	6	6
Specialization 80 to 89 percent ...	933	10 320	366 114	3 714 883	3 068 923	1 392 519	775 427	2 322 364	7	8	9
Specialization 70 to 79 percent ...	964	9 576	339 179	3 343 257	2 453 682	1 330 483	814 807	2 012 775	5	5	5
Specialization 60 to 69 percent ...	1 120	11 996	386 049	3 127 898	1 965 251	1 461 480	921 552	1 666 419	6	4	3
Specialization 51 to 59 percent ...	727	8 465	312 983	2 869 418	1 567 906	1 187 826	699 056	1 681 592	6	7	8
Commercial warehouses											
All establishments specializing	1 669	16 252	513 150	4 530 491	3 527 271	2 145 780	1 378 668	2 384 711	6	7	7
Specialization 100 percent	759	5 619	159 578	1 198 731	1 198 731	650 413	410 376	548 318	10	18	25
Specialization 90 to 99 percent ...	169	1 827	53 510	470 726	436 692	245 969	*189 647	224 757	25	34	35
Specialization 80 to 89 percent ...	94	958	39 170	402 550	327 961	161 654	80 233	240 896	7	6	7
Specialization 70 to 79 percent ...	235	2 152	66 621	609 786	445 128	308 042	208 301	301 744	11	5	4
Specialization 60 to 69 percent ...	265	3 860	145 371	1 421 744	892 035	509 854	314 943	911 890	9	5	5
Specialization 51 to 59 percent ...	146	1 835	48 901	426 956	226 724	*269 849	*175 168	157 107	25	27	8
Religious buildings											
All establishments specializing	663	4 874	128 174	1 152 216	866 944	586 486	364 305	565 729	11	9	8
Specialization 100 percent	156	1 267	31 456	230 911	230 911	129 015	101 163	101 896	19	27	26
Specialization 90 to 99 percent ...	S	237	6 207	36 077	34 274	19 440	11 209	16 637	32	13	6
Specialization 80 to 89 percent ...	*49	438	13 958	196 952	161 940	85 635	67 014	111 317	17	6	2
Specialization 70 to 79 percent ...	143	1 031	22 722	173 876	127 674	94 622	52 317	79 253	25	13	12
Specialization 60 to 69 percent ...	167	1 276	30 677	319 808	204 398	163 569	85 479	156 238	31	22	18
Specialization 51 to 59 percent ...	107	626	23 153	194 592	107 747	94 206	47 122	100 387	20	20	19
Educational buildings											
All establishments specializing	2 298	44 534	1 636 320	15 079 182	11 377 536	6 179 061	3 833 935	8 900 122	3	4	3
Specialization 100 percent	543	6 122	238 533	2 176 769	2 176 769	879 851	503 210	1 296 918	8	12	12
Specialization 90 to 99 percent ...	339	6 381	204 415	2 024 132	1 889 012	990 815	687 490	1 033 316	17	20	13
Specialization 80 to 89 percent ...	396	6 137	220 413	1 921 258	1 592 379	779 887	513 999	1 141 371	4	2	1
Specialization 70 to 79 percent ...	426	8 715	330 881	3 214 962	2 361 601	1 333 818	885 828	1 881 144	5	6	8
Specialization 60 to 69 percent ...	267	7 699	275 618	2 560 961	1 608 243	1 056 070	592 791	1 504 891	5	3	4
Specialization 51 to 59 percent ...	327	9 480	366 461	3 181 102	1 749 531	1 138 620	650 618	2 042 482	8	5	5

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997—Con.

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
233320, COMMERCIAL & INSTITUTIONAL BUILDING CONSTRUCTION—Con.											
Health care and institutional buildings											
All establishments specializing	1 564	21 436	804 324	7 772 628	5 937 886	3 172 732	2 030 451	4 599 896	3	2	2
Specialization 100 percent	S	5 066	177 524	1 768 726	1 768 726	851 686	624 276	917 040	8	5	6
Specialization 90 to 99 percent ...	157	2 145	78 182	844 655	799 069	422 930	278 127	421 725	9	5	6
Specialization 80 to 89 percent ...	144	1 876	63 089	592 229	486 822	229 808	149 346	362 421	4	3	3
Specialization 70 to 79 percent ...	234	3 442	141 318	1 359 586	999 487	441 072	250 311	918 514	7	7	7
Specialization 60 to 69 percent ...	347	5 814	225 703	1 911 122	1 180 723	795 910	458 094	1 115 212	8	6	5
Specialization 51 to 59 percent ...	117	3 093	118 508	1 296 310	703 059	431 326	270 298	864 984	5	3	1
Public safety buildings											
All establishments specializing	285	3 083	106 425	884 390	707 330	339 464	171 997	544 926	10	7	5
Specialization 100 percent	127	1 060	31 625	254 765	254 765	119 299	69 430	135 467	25	17	7
Specialization 90 to 99 percent ...	42	258	8 072	120 669	115 640	39 516	14 295	81 154	33	27	28
Specialization 80 to 89 percent ...	17	189	7 229	77 181	62 331	20 929	12 006	56 251	15	4	Z
Specialization 70 to 79 percent ...	26	429	13 599	70 047	52 308	29 977	\$10 794	40 070	21	27	25
Specialization 60 to 69 percent ...	37	884	33 148	298 196	187 964	94 302	55 055	203 894	6	6	5
Specialization 51 to 59 percent ...	\$37	264	12 753	63 532	34 322	\$35 441	\$10 418	28 091	30	35	15
Farm buildings, nonresidential											
All establishments specializing	1 990	11 500	229 488	1 637 968	1 482 441	1 390 818	737 894	247 149	7	8	14
Specialization 100 percent	1 263	7 484	143 964	1 077 154	1 077 154	912 411	472 864	164 743	9	11	19
Specialization 90 to 99 percent ...	103	619	15 246	141 707	130 161	108 392	38 310	\$33 315	18	34	42
Specialization 80 to 89 percent ...	258	729	11 447	66 058	53 699	60 964	42 472	\$5 094	25	28	41
Specialization 70 to 79 percent ...	85	941	21 795	96 840	70 068	87 210	68 692	9 630	11	9	23
Specialization 60 to 69 percent ...	254	1 306	24 953	163 533	100 299	144 365	72 799	19 168	23	24	27
Specialization 51 to 59 percent ...	27	421	12 082	92 675	51 059	77 475	42 757	S	11	5	S
Amusement, social, and recreational buildings											
All establishments specializing	695	6 213	214 479	2 424 893	2 064 699	844 730	559 832	1 580 163	6	5	6
Specialization 100 percent	303	2 037	54 991	689 938	689 938	282 325	188 429	407 613	13	4	3
Specialization 90 to 99 percent ...	119	812	26 376	599 733	571 971	107 949	79 556	491 784	24	19	16
Specialization 80 to 89 percent ...	22	1 484	59 599	411 573	341 922	168 136	130 537	243 437	1	1	1
Specialization 70 to 79 percent ...	85	S	14 113	S	S	S	S	S	S	S	S
Specialization 60 to 69 percent ...	38	758	34 368	363 722	232 629	106 680	74 277	257 042	9	5	4
Specialization 51 to 59 percent ...	129	702	23 032	200 426	109 737	112 162	54 544	88 264	26	21	24
Other building construction											
All establishments specializing	1 060	10 812	375 702	2 557 999	2 318 230	1 217 891	843 377	1 340 108	3	5	6
Specialization 100 percent	694	6 894	236 174	1 446 128	1 446 128	778 387	555 607	667 741	3	3	2
Specialization 90 to 99 percent ...	S	1 386	45 520	310 839	292 968	142 893	79 480	167 945	9	6	4
Specialization 80 to 89 percent ...	S	970	34 945	337 232	281 734	86 333	63 111	250 899	15	3	1
Specialization 70 to 79 percent ...	S	339	15 629	100 882	74 229	39 254	24 420	61 629	7	2	Z
Specialization 60 to 69 percent ...	100	907	33 067	\$276 818	175 358	125 761	96 675	\$151 057	21	40	48
Specialization 51 to 59 percent ...	8	317	10 366	86 100	47 813	45 263	24 085	40 837	Z	Z	Z

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
233320, COMMERCIAL & INSTITUTIONAL BUILDING CONSTRUCTION		
Total	175 230 832	1
Building, developing, and general contracting, total	169 410 083	1
Building construction on land owned by others—general contractor or design-builder	123 846 160	1
Building construction on land owned by you, for sale	1 920 873	3
Construction management—buildings	17 746 660	2
Remodeling—general contractor or design-builder	25 896 390	2
Special trade contractors, total	922 960	3
Excavation work: earthmoving or land clearing contractor, connected with buildings	922 960	3
Other construction activities, nec	1 597 062	2
Other business activities secondary to construction activities, total	1 981 429	2
Building construction on land owned by you, for rent or lease (investment builder), secondary to construction activities	476 053	2
Other business activities, secondary to construction activities, nec	1 505 376	2
Kind of business activity, nsk	1 319 313	4

Table 10. Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
233320, COMMERCIAL & INSTITUTIONAL BUILDING CONSTRUCTION											
Total	37 430	528 173	19 176 160	173 205 680	X	71 252 816	44 363 544	101 952 864	1	1	1
Establishments not specializing	1 886	29 275	1 051 353	7 773 731	X	3 163 425	2 198 716	4 610 305	3	2	1
Establishments specializing 51 percent or more	35 545	498 898	18 124 808	165 431 951	148 863 707	68 089 392	42 164 829	97 342 559	1	1	1
Building construction on land owned by others—general contractor or design-builder											
All establishments specializing	21 605	379 600	13 653 083	128 488 247	116 929 562	51 903 551	30 618 800	76 584 696	1	1	1
Specialization 100 percent	13 918	191 991	6 618 368	63 780 333	63 780 333	27 193 001	16 291 062	36 587 332	1	1	1
Specialization 90 to 99 percent	2 547	72 906	2 721 231	27 026 214	25 622 749	9 948 495	5 488 284	17 077 719	2	2	2
Specialization 80 to 89 percent	1 745	41 755	1 568 684	14 529 645	12 110 945	5 343 287	3 215 829	9 186 358	3	2	2
Specialization 70 to 79 percent	1 639	31 282	1 192 351	11 237 000	8 206 183	4 039 926	2 451 351	7 197 073	3	2	2
Specialization 60 to 69 percent	1 111	27 365	994 382	7 878 837	4 986 035	3 563 749	2 066 201	4 315 088	3	3	2
Specialization 51 to 59 percent	646	14 300	558 068	4 036 219	2 223 316	1 815 093	1 106 073	2 221 125	4	2	2
Building construction on land owned by you, for sale											
All establishments specializing	399	3 186	121 478	1 641 910	1 381 645	1 189 565	1 088 915	452 345	5	4	7
Specialization 100 percent	217	1 498	56 812	399 021	399 021	315 645	243 800	83 376	5	14	15
Specialization 90 to 99 percent	⁸⁴ 2 547	72 906	10 971	90 381	84 527	65 552	46 952	24 829	24	22	25
Specialization 80 to 89 percent	²³ 1 745	41 755	27 124	878 031	709 383	D	D	D	9	1	D
Specialization 70 to 79 percent	38	433	12 625	184 815	137 324	60 069	32 070	124 747	22	19	22
Specialization 60 to 69 percent	25	198	7 265	S	S	S	D	14 367	28	S	39
Specialization 51 to 59 percent	14	261	6 681	41 999	22 198	D	35 019	D	6	9	D
Construction management—buildings											
All establishments specializing	2 788	32 219	1 491 587	15 119 676	13 038 424	5 459 267	4 446 589	9 660 409	2	2	2
Specialization 100 percent	1 949	16 363	744 576	5 754 931	5 754 931	2 183 192	1 420 004	3 571 739	2	4	6
Specialization 90 to 99 percent	185	3 683	210 727	3 142 808	2 958 892	1 577 933	1 337 736	1 564 875	3	1	2
Specialization 80 to 89 percent	185	2 322	93 717	1 161 782	984 595	306 573	275 451	855 209	15	9	7
Specialization 70 to 79 percent	211	4 714	238 846	2 849 755	2 088 287	552 616	771 796	2 297 138	5	2	2
Specialization 60 to 69 percent	163	2 518	86 316	859 866	534 102	406 437	296 695	453 429	7	15	11
Specialization 51 to 59 percent	95	2 619	117 406	1 350 534	717 617	432 516	344 908	918 019	2	Z	Z
Remodeling—general contractor or design-builder											
All establishments specializing	9 538	77 682	2 646 380	18 871 441	16 203 401	8 876 477	5 624 892	9 994 965	2	3	3
Specialization 100 percent	6 072	38 285	1 214 109	7 987 633	7 987 633	4 199 755	2 676 411	3 787 878	4	5	6
Specialization 90 to 99 percent	928	9 383	350 902	2 528 267	2 368 041	1 145 172	717 660	1 383 096	6	6	7
Specialization 80 to 89 percent	782	8 673	308 408	2 458 794	2 019 684	991 064	629 178	1 467 730	8	8	8
Specialization 70 to 79 percent	796	8 283	302 769	2 170 273	1 600 018	952 813	632 483	1 217 460	7	6	6
Specialization 60 to 69 percent	612	8 168	301 486	2 185 241	1 379 784	871 443	559 384	1 313 798	7	6	6
Specialization 51 to 59 percent	348	4 889	168 706	1 541 232	848 241	716 229	409 776	825 003	7	5	4

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Value of construction work	Value of construction work	Value of construction work	Value of construction work	Value of construction work	A	C	E	
	A	B	C	D	E	F	G			
233320, COMMERCIAL & INSTITUTIONAL BUILDING CONSTRUCTION										
United States	173 205 680	23 927	122 621 183	13 769	28 487 029	13 100	22 097 470	1	1	1
Alabama	D	396	D	290	D	214	D	D	D	D
Alaska	509 429	79	368 373	44	71 411	90	69 645	2	2	Z
Arizona	3 287 644	432	2 401 271	211	D	230	D	2	3	D
Arkansas	D	212	900 969	209	464 385	77	D	D	D	6
California	18 093 906	2 409	14 147 612	260	1 664 370	1 300	2 281 925	1	2	3
Colorado	3 728 688	443	D	249	D	276	D	4	D	D
Connecticut	D	235	1 599 501	317	D	179	D	D	D	6
Delaware	891 394	48	545 243	177	295 407	43	50 744	15	25	1
District of Columbia	1 724 839	22	225 009	342	D	34	D	1	3	D
Florida	D	1 203	D	531	D	760	D	D	D	D
Georgia	7 134 326	736	4 863 108	482	1 096 658	450	1 174 560	2	2	4
Hawaii *	D	153	D	53	D	57	D	2	D	D
Idaho	D	228	498 479	155	213 252	127	D	D	5	2
Illinois	7 860 551	939	D	534	D	486	D	4	D	D
Indiana	3 132 116	644	2 481 959	341	482 174	169	167 983	8	10	2
Iowa	1 610 654	393	1 144 624	290	278 847	164	187 183	5	3	5
Kansas	1 609 747	271	967 960	309	542 948	113	98 839	4	7	14
Kentucky	1 961 212	310	D	466	D	221	D	13	D	D
Louisiana	1 855 800	299	1 136 422	299	402 316	226	317 062	5	9	4
Maine	385 818	162	214 993	84	94 414	71	76 412	7	14	1
Maryland	3 693 531	589	2 251 784	463	991 025	297	450 722	2	2	7
Massachusetts	4 518 815	449	3 359 735	258	624 299	315	534 781	4	4	1
Michigan	4 791 024	717	3 642 153	282	545 346	544	603 525	3	3	2
Minnesota	3 361 074	525	2 655 261	212	252 643	172	453 170	3	4	1
Mississippi	D	238	1 307 146	214	D	72	98 384	D	4	D
Missouri	D	552	D	313	D	182	D	D	D	D
Montana	342 606	119	216 801	67	78 137	44	47 668	6	9	6
Nebraska	895 824	204	573 157	131	163 030	114	159 637	6	10	5
Nevada	D	164	2 028 901	212	D	87	D	D	2	D
New Hampshire	697 186	64	361 910	191	D	63	D	4	3	D
New Jersey	4 973 021	595	D	498	D	312	D	2	D	D
New Mexico	913 252	220	D	162	D	111	D	7	D	D
New York	D	1 539	D	389	D	1 157	D	D	D	D
North Carolina	5 949 386	639	3 842 320	451	1 326 204	277	780 862	2	4	3
North Dakota	297 619	117	D	66	60 631	54	D	7	D	1
Ohio	5 620 984	990	4 283 283	405	666 454	580	671 247	2	3	5
Oklahoma	D	293	D	199	D	173	D	D	D	D
Oregon	2 599 182	476	2 099 305	249	D	156	D	4	5	D
Pennsylvania	5 966 516	957	4 688 442	452	499 179	349	778 896	2	2	4
Rhode Island	D	56	D	120	54 116	35	D	D	D	10
South Carolina	2 417 316	225	1 278 125	401	D	129	D	6	10	D
South Dakota	D	155	D	108	D	52	D	D	D	D
Tennessee	3 751 331	449	2 659 003	414	813 239	146	279 090	3	3	1
Texas	12 953 464	1 492	D	386	D	1 338	D	3	D	D
Utah	1 796 639	237	1 513 815	86	125 370	89	157 455	10	12	1
Vermont	303 481	109	D	72	D	12	D	6	D	D
Virginia	5 076 575	687	3 057 544	607	1 562 672	303	456 359	1	2	2
Washington	4 155 050	685	3 118 004	237	502 332	394	534 714	2	3	5
West Virginia	529 092	192	D	223	D	55	D	4	D	D
Wisconsin	D	516	D	163	243 326	145	227 736	D	D	5
Wyoming	211 989	61	D	92	67 996	54	D	5	D	8

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

NUMBER OF CONSTRUCTION WORKERS: QUARTERLY PAY PERIOD

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS NOT REPORTING INVENTORIES

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH NO INVENTORIES

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY PERIOD

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

NUMBER OF PROPRIETORS AND WORKING PARTNERS

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **Other building construction.** Includes all types of residential and nonresidential building construction not shown elsewhere.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military nonbuilding such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Highway and Street Construction

1997

Issued October 1999

EC97C-2341A

1997 Economic Census

Construction

Industry Series



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
234110	Highway & street construction	11 270	277 979	9 527 626	48 472 284	39 102 084	22 983 910	17 699 646	2 189 057
161100	Highway & street construction contractors, exc	11 162	277 073	9 472 264	48 347 180	39 026 188	22 923 202	17 676 596	2 184 441
874131	elevated highways	108	906	55 362	125 104	75 896	60 708	23 049	4 616
	Management services (pt)								

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		All	Con- struction workers	January to March	April to June	July to September	October to December	All employees	Construction workers	
234110, HIGHWAY & STREET CONSTRUCTION										
United States	11 270	277 979	227 066	168 468	242 136	266 449	231 211	9 527 626	7 095 139	1
Alabama	308	6 577	5 503	4 888	5 699	5 816	5 610	156 124	119 682	11
Alaska	124	1 785	1 515	869	1 864	2 290	1 038	98 507	84 013	7
Arizona	184	5 345	4 461	3 880	4 563	4 825	4 576	164 259	127 427	7
Arkansas	97	1 751	1 415	1 087	1 461	1 769	1 344	42 015	30 067	32
California	827	19 540	15 153	13 095	15 423	17 091	15 005	863 093	628 763	3
Colorado	228	5 476	4 365	3 051	4 713	5 514	4 183	179 456	127 810	9
Connecticut	232	2 171	2 171	1 268	2 430	2 670	2 316	110 111	81 960	8
Delaware	44	1 028	826	545	900	978	880	30 485	22 611	12
District of Columbia	8	764	580	530	589	625	577	28 176	21 648	Z
Florida	380	15 288	12 254	12 188	12 415	12 349	12 064	455 510	323 774	5
Georgia	316	7 103	5 888	5 530	5 959	6 205	5 856	221 511	152 424	10
Hawaii *	50	996	682	675	642	702	708	46 223	29 616	6
Idaho	140	2 368	2 025	1 437	2 061	2 505	2 099	70 131	54 449	11
Illinois	475	11 999	9 744	4 769	11 209	12 886	10 113	499 238	383 402	5
Indiana	173	5 041	3 652	2 055	4 128	4 507	3 919	208 481	158 844	5
Iowa	165	5 197	4 541	1 786	5 866	5 817	4 696	178 613	137 840	11
Kansas	134	5 505	4 533	3 706	5 064	5 252	4 110	178 948	123 960	7
Kentucky	155	3 969	3 227	2 527	3 300	3 631	3 451	130 315	98 543	14
Louisiana	144	5 467	4 376	4 107	4 424	4 657	4 315	142 386	96 544	8
Maine	47	954	772	389	871	982	844	28 126	20 287	17
Maryland	204	7 716	6 385	5 217	6 781	6 985	6 556	236 072	171 053	5
Massachusetts	245	4 016	3 073	1 387	3 280	3 736	3 887	171 705	119 260	9
Michigan	352	5 789	4 771	1 906	5 518	6 362	5 298	257 943	194 590	7
Minnesota	262	5 839	4 929	1 755	5 192	7 849	4 920	249 988	194 680	8
Mississippi	141	4 140	3 572	3 178	3 771	3 798	3 541	105 023	77 140	11
Missouri	221	5 952	4 872	3 367	5 361	6 057	4 701	219 862	166 412	8
Montana	109	2 168	1 874	1 257	2 154	2 411	1 674	59 747	45 761	9
Nebraska	116	2 954	2 512	1 740	2 877	3 019	2 410	86 162	67 458	11
Nevada	46	2 523	2 194	1 963	2 285	2 415	2 112	103 875	88 479	3
New Hampshire	96	1 208	938	484	1 093	1 133	1 042	42 846	29 654	14
New Jersey	406	5 677	4 403	2 843	4 821	5 112	4 835	232 643	162 307	8
New Mexico	75	3 512	2 740	2 440	2 795	2 975	2 751	100 137	73 772	10
New York	622	11 037	8 872	4 736	9 508	11 020	10 222	450 734	344 118	6
North Carolina	381	11 964	9 746	8 738	10 187	10 359	9 698	334 837	247 308	4
North Dakota	109	1 732	1 526	574	1 654	2 321	1 555	57 323	46 518	10
Ohio	397	10 433	8 316	3 993	9 152	11 077	9 041	423 751	330 029	6
Oklahoma	114	3 099	2 568	2 350	2 459	2 766	2 695	84 951	60 476	8
Oregon	300	3 641	2 927	2 257	3 105	3 494	2 851	131 200	99 269	7
Pennsylvania	507	11 590	9 298	5 905	10 270	11 158	9 859	416 437	304 183	4
Rhode Island	42	619	467	293	549	532	493	25 581	18 367	11
South Carolina	211	4 290	3 619	3 477	3 852	3 747	3 400	108 598	79 369	8
South Dakota	110	1 415	1 120	560	1 331	1 478	1 110	37 245	28 735	22
Tennessee	216	7 680	6 713	5 731	7 164	7 375	6 583	215 563	162 206	6
Texas	556	20 748	17 627	16 835	17 641	18 683	17 349	517 822	383 125	5
Utah	97	2 796	2 253	1 497	2 257	2 784	2 479	93 558	68 628	7
Vermont	*30	360	301	138	331	397	340	10 001	7 649	8
Virginia	420	11 309	9 591	8 401	9 988	10 328	9 645	302 773	225 350	7
Washington	364	6 975	5 561	3 583	5 464	7 181	6 017	295 881	216 964	6
West Virginia	77	1 816	1 375	1 117	1 527	1 638	1 217	57 450	35 381	19
Wisconsin	182	4 739	4 049	1 644	4 763	5 521	4 270	224 641	187 267	9
Wyoming	33	1 338	1 194	721	1 423	1 668	963	41 573	35 970	6

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
234110. HIGHWAY & STREET CONSTRUCTION										
United States	48 472 284	39 102 084	22 983 910	17 699 646	9 370 199	1 546 990	2 189 057	19 603 764	1	2
Alabama	866 441	696 739	423 023	338 286	169 702	31 430	49 538	438 761	9	10
Alaska	401 311	335 624	249 429	93 296	65 687	8 936	19 608	185 996	4	9
Arizona	938 022	743 348	395 841	355 048	194 674	31 950	36 102	227 007	9	6
Arkansas	199 028	162 506	97 632	D	36 522	56 449	9 348	102 838	23	31
California	4 252 688	3 412 756	2 184 087	1 339 619	839 931	193 021	135 632	1 063 391	4	9
Colorado	1 023 799	806 943	466 707	363 912	216 856	31 075	43 820	339 130	6	13
Connecticut	528 940	424 552	261 133	165 652	104 387	12 601	22 115	209 949	7	10
Delaware	154 621	129 024	61 660	67 581	25 597	9 052	6 925	50 882	6	8
District of Columbia	114 234	87 376	51 459	D	26 858	4 161	5 154	32 553	Z	Z
Florida	2 461 423	1 918 343	1 143 377	825 505	543 079	86 450	115 471	1 058 580	5	7
Georgia	1 328 680	1 063 983	524 801	590 469	264 697	24 194	79 225	615 769	9	8
Hawaii *	193 905	151 144	99 496	D	42 761	6 365	5 390	106 111	3	4
Idaho	451 339	341 634	237 370	109 115	109 705	S	S	210 812	14	S
Illinois	2 278 840	1 803 900	1 121 053	790 085	474 940	92 036	90 176	992 152	4	11
Indiana	1 116 213	897 885	393 451	543 391	218 327	20 899	47 055	352 886	4	5
Iowa	980 105	820 856	342 081	492 695	159 249	12 912	60 174	585 813	9	19
Kansas	1 016 892	761 569	468 946	339 189	255 323	18 133	57 464	558 216	10	4
Kentucky	699 980	563 163	337 615	267 554	136 818	16 200	37 028	420 383	8	13
Louisiana	776 358	666 945	340 397	352 261	109 413	35 745	33 403	323 988	7	10
Maine	108 824	92 475	57 635	42 708	D	2 934	5 780	78 750	12	21
Maryland	1 059 283	851 438	526 993	360 176	207 844	23 186	50 973	489 090	5	11
Massachusetts	932 511	728 621	398 448	348 252	203 890	46 778	26 312	199 655	11	30
Michigan	1 412 698	1 100 151	673 003	481 223	312 548	69 060	64 005	446 585	8	8
Minnesota	1 233 287	950 334	605 641	382 622	282 953	42 622	58 130	625 708	8	10
Mississippi	679 551	561 578	311 569	265 461	117 973	21 679	24 511	208 519	16	12
Missouri	1 134 431	954 013	514 636	494 638	180 418	36 498	51 327	584 832	10	9
Montana	296 286	243 095	145 849	106 104	53 191	10 299	25 159	149 949	14	21
Nebraska	479 202	368 554	193 909	189 085	110 649	12 836	23 571	242 876	12	22
Nevada	504 804	445 594	303 247	149 489	59 210	19 706	20 714	225 305	4	10
New Hampshire	224 913	171 409	86 017	85 923	53 504	6 279	29 161	148 062	15	36
New Jersey	1 102 931	915 867	568 224	369 163	187 065	26 636	37 473	439 393	7	10
New Mexico	439 549	366 894	225 821	149 886	72 655	13 749	19 436	245 890	10	13
New York	2 135 106	1 703 184	1 025 126	708 790	431 922	71 391	64 808	519 919	5	4
North Carolina	1 640 923	1 269 119	753 497	615 698	371 804	56 269	85 149	722 337	4	7
North Dakota	270 439	215 513	143 413	80 678	54 927	17 845	13 785	144 056	6	8
Ohio	2 229 944	1 803 392	997 514	817 514	426 552	52 014	60 554	727 841	4	7
Oklahoma	483 302	415 609	231 181	199 207	67 693	10 086	19 255	186 192	9	10
Oregon	589 590	495 222	296 487	226 138	94 367	18 893	29 986	264 053	5	12
Pennsylvania	1 852 631	1 542 036	1 000 056	674 509	310 595	54 616	89 340	814 312	4	6
Rhode Island	123 996	98 560	44 550	D	25 436	3 910	S	35 928	7	S
South Carolina	654 497	546 470	286 690	286 016	108 027	16 790	30 440	275 108	9	12
South Dakota	177 033	157 901	100 624	67 030	19 133	3 679	11 143	121 070	20	23
Tennessee	1 273 466	1 056 314	655 358	439 509	217 153	31 563	67 341	488 738	5	7
Texas	2 712 203	2 243 295	1 141 386	1 155 750	468 908	79 981	131 867	1 035 032	5	9
Utah	555 960	436 551	299 657	169 342	119 409	14 786	25 043	211 029	7	11
Vermont	44 408	40 733	24 859	D	3 674	1 935	2 261	27 186	8	17
Virginia	1 511 678	1 225 951	653 010	609 087	285 727	30 280	63 481	647 458	6	8
Washington	1 350 856	1 099 850	753 760	410 769	251 006	49 759	79 958	623 648	5	15
West Virginia	269 510	235 834	192 974	63 436	33 676	58 913	22 641	167 815	13	2
Wisconsin	1 031 893	833 230	468 860	404 146	198 663	30 200	56 896	483 502	6	10
Wyoming	173 763	145 010	104 358	63 258	28 753	5 993	17 537	148 708	6	7

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
234110, HIGHWAY & STREET CONSTRUCTION			234110, HIGHWAY & STREET CONSTRUCTION— Con.		
Number of establishments in business during year	11 270	2	Selected costs—Con.		
Number of proprietors and working partners	3 144	7	Cost of selected power, fuels, and lubricants	1 416 449	1
Total number of employees	277 979	1	Cost of electricity	139 433	4
Number of construction workers in March	168 468	1	Cost of natural gas and manufactured gas	122 079	4
Number of construction workers in May	242 136	1	Cost of gasoline and diesel fuel	1 036 543	1
Number of construction workers in August	266 449	1	Cost of on-highway use of gasoline and diesel fuel	515 101	2
Number of construction workers in November	231 211	1	Cost of off-highway use of gasoline and diesel fuel	521 441	2
Average number of construction workers	227 066	1	Cost of all other fuels and lubricants	118 395	3
Number of other employees in March	48 663	1	Rental cost for machinery, equipment, and buildings	1 546 990	2
Number of other employees in May	51 241	1	Rental cost for machinery and equipment	1 418 402	2
Number of other employees in August	51 963	1	Rental cost for buildings	128 589	4
Number of other employees in November	51 785	2	Selected purchased services	1 698 256	2
Average number of other employees	50 913	1	Purchased communication services	204 707	2
Payroll, all employees	9 527 626	1	Cost of repairs to buildings and other structures	82 281	2
Payroll, construction workers	7 095 139	1	Cost of repairs to machinery and equipment	1 411 268	2
Payroll, other employees	2 432 488	1	Value of construction work	48 472 284	1
First-quarter payroll, all employees	1 568 886	1	Value of construction work on government owned projects ..	34 373 148	1
Fringe benefits, all employees	2 616 641	1	Value of construction work on federally owned projects ..	4 013 480	3
Legally required expenditures	1 507 465	1	Value of construction work on state and locally owned projects	30 359 670	1
Voluntary expenditures	1 109 177	1	Value of construction work on privately owned projects	14 099 133	2
Value of business done	50 053 756	1	Beginning-of-year gross book value of depreciable assets	18 134 326	1
Value of construction work	48 472 284	1	Capital expenditures, other than land	2 189 057	2
Value of construction work subcontracted in from others ...	12 246 944	2	Retirements and disposition of depreciable assets	719 618	2
Other business receipts	1 581 472	2	End-of-year gross book value of depreciable assets	19 603 764	1
Net value of construction	39 102 084	1	Depreciation charges during year	1 767 571	2
Value added	22 983 910	1	Number of establishments with inventories	2 857	4
Selected costs	27 069 844	1	Value of construction work for establishments with inventories ..	23 883 526	2
Cost of materials, components, and supplies	16 283 196	1	End of 1997, inventories of materials and supplies	507 182	4
Cost of construction work subcontracted out to others	9 370 199	1	End of 1996, inventories of materials and supplies	453 142	4
			Number of establishments with no inventories	4 627	4
			Value of construction work for establishments with no inventories	17 465 016	2
			Number of establishments not reporting inventories	3 787	5
			Value of construction work for establishments not reporting inventories	7 123 740	4

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
	A	B	C	D	E	F	G	H	I	B	F	
234110, HIGHWAY & STREET CONSTRUCTION												
Total	11 270	277 979	9 527 626	50 053 756	48 472 284	39 102 084	22 983 910	17 699 646	9 370 199	1	1	
Establishments with 1 to 4 employees	S	8 683	200 674	1 187 735	1 167 415	1 040 382	681 916	378 786	S	6	7	
Establishments with 5 to 9 employees	1 987	13 032	368 485	1 880 009	1 865 338	1 631 841	1 060 228	586 284	233 497	7	9	
Establishments with 10 to 19 employees	1 876	25 173	782 947	3 820 465	3 748 307	3 228 932	2 002 396	1 298 694	519 375	6	7	
Establishments with 20 to 49 employees	1 843	55 763	1 878 608	9 323 218	9 172 724	7 599 126	4 374 884	3 374 736	1 573 598	4	4	
Establishments with 50 to 99 employees	840	56 836	1 992 475	10 295 342	9 941 854	8 101 300	4 656 030	3 798 757	1 840 555	4	3	
Establishments with 100 to 249 employees	439	65 587	2 390 645	13 091 075	12 605 088	9 804 496	5 527 766	4 762 717	2 800 592	1	1	
Establishments with 250 to 499 employees	105	34 934	1 251 776	7 179 780	6 882 508	5 256 812	3 093 477	2 460 607	1 625 696	Z	Z	
Establishments with 500 to 999 employees	25	D	D	D	D	D	D	D	D	D	D	
Establishments with 1,000 employees or more	1	D	D	D	D	D	D	D	D	D	D	

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
	A	B	C	D	E	F	G	H	I	B	F	
234110, HIGHWAY & STREET CONSTRUCTION												
Total	11 270	277 979	9 527 626	50 053 756	48 472 284	39 102 084	22 983 910	17 699 646	9 370 199	1	1	
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S	
Establishments with value of business done \$25,000 to \$49,999	S	173	S	S	S	S	S	S	S	34	S	
Establishments with value of business done \$50,000 to \$99,999	S	672	8 817	S	S	S	S	S	S	22	S	
Establishments with value of business done \$100,000 to \$249,999	1 678	4 080	69 924	292 690	288 886	264 458	186 399	81 863	S	11	9	
Establishments with value of business done \$250,000 to \$499,999	S	6 555	134 793	S	S	S	S	S	S	10	S	
Establishments with value of business done \$500,000 to \$999,999	1 719	12 385	297 193	1 192 610	1 179 268	1 066 012	722 538	356 815	113 257	8	7	
Establishments with value of business done \$1,000,000 to \$2,499,999	1 953	26 575	722 966	3 058 211	3 001 973	2 702 535	1 725 766	1 033 007	299 438	6	6	
Establishments with value of business done \$2,500,000 to \$4,999,999	1 182	29 752	917 849	4 096 028	4 030 833	3 501 422	2 244 748	1 321 869	529 410	7	6	
Establishments with value of business done \$5,000,000 to \$9,999,999	975	41 560	1 446 099	6 898 431	6 759 806	5 646 965	3 157 646	2 627 943	1 112 841	5	5	
Establishments with value of business done \$10,000,000 or more	1 208	156 169	5 927 962	33 884 816	32 588 730	25 344 240	14 551 703	12 088 624	7 244 489	1	1	

Table 7. **Value of Construction Work for Establishments With Payroll by Type of Construction: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
234110, HIGHWAY & STREET CONSTRUCTION								
Total	48 472 284	24 670 762	16 107 240	7 694 156	1	2	2	3
Building construction, total	893 645	696 026	143 508	54 111	5	5	6	12
Nonbuilding construction, total	47 578 513	23 974 736	15 963 732	7 640 045	1	2	2	3
Highways, streets, and related work	38 171 125	18 421 334	13 133 072	6 616 719	1	2	2	3
Airport runways and related work	1 434 231	676 329	577 283	180 619	5	8	6	8
Private driveways and parking areas	2 651 738	1 475 751	682 680	493 307	3	3	6	8
Bridges, tunnels, and elevated highways	1 872 787	1 020 112	710 928	141 747	3	3	6	9
Sewers, water mains, and related facilities	1 958 700	1 428 162	432 238	98 301	3	4	5	8
Sewers, sewer lines, septic systems, and related facilities	1 210 093	893 190	262 542	54 361	3	4	5	9
Water mains and related facilities	748 607	534 972	169 696	43 939	5	6	6	9
Sewage and water treatment plants	227 504	125 435	88 510	13 559	3	5	1	1
Conservation and development construction	245 311	176 536	40 423	28 352	9	10	16	36
Recreational facilities	159 864	129 394	25 556	4 914	10	9	36	24
Other nonbuilding construction, nec	857 252	521 682	273 041	62 529	4	5	7	12

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—			
				For all types	For specialized type				B	D	H	
				A	B							C
234110, HIGHWAY & STREET CONSTRUCTION												
Total	11 270	277 979	9 527 626	48 472 284	X	39 102 084	22 983 910	9 370 199	1	1	1	
Establishments not specializing ..	570	26 016	924 087	4 392 343	X	3 513 571	2 198 322	878 772	4	4	4	
Establishments specializing 51 percent or more	10 700	251 963	8 603 540	44 079 942	36 748 212	35 588 515	20 785 590	8 491 427	1	1	2	
Highways, streets, and related work												
All establishments specializing	10 505	249 136	8 491 984	43 439 086	36 249 783	35 156 235	20 573 215	8 282 851	1	1	2	
Specialization 100 percent	5 862	86 054	2 801 655	15 061 825	15 061 825	12 398 805	7 354 269	2 663 021	3	3	4	
Specialization 90 to 99 percent ...	1 070	33 081	1 110 649	5 949 644	5 556 319	4 798 752	2 764 826	1 150 892	4	4	4	
Specialization 80 to 89 percent ...	900	34 093	1 151 462	5 659 718	4 713 298	4 450 134	2 539 757	1 209 585	5	4	4	
Specialization 70 to 79 percent ...	956	39 044	1 388 311	6 827 389	4 997 313	5 453 447	3 222 995	1 373 942	4	3	3	
Specialization 60 to 69 percent ...	1 009	32 872	1 136 820	5 700 890	3 600 485	4 631 513	2 758 686	1 069 377	4	4	5	
Specialization 51 to 59 percent ...	709	23 992	903 087	4 239 620	2 320 542	3 423 585	1 932 682	816 035	4	3	3	
Airport runways and related work												
All establishments specializing	180	2 294	90 468	476 352	388 160	344 724	190 419	131 628	17	16	19	
Specialization 100 percent	120	1 145	42 580	206 565	206 565	152 206	99 904	54 359	27	30	38	
Specialization 70 to 79 percent ...	*25	611	29 456	164 989	119 411	117 394	47 845	47 594	32	25	31	
Specialization 60 to 69 percent ...	S	457	15 212	87 063	52 430	60 265	38 416	26 798	26	14	5	
Specialization 51 to 59 percent ...	*11	*81	*3 220	*17 736	*9 755	*14 859	S	*2 876	63	50	50	

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
234110, HIGHWAY & STREET CONSTRUCTION		
Total	50 053 756	1
Building, developing, and general contracting, total	297 503	8
Building construction on land owned by others—general contractor or design-builder	297 503	8
Heavy construction, total	46 161 760	1
Excavation work, earthmoving or land clearing contractor, not connected with buildings	2 711 973	3
Heavy construction contractor	3 046 166	2
Highway and street general contractor	26 005 525	2
Paving contractor—asphalt or concrete for highways, streets, or airport runways	14 398 096	2
Special trade contractors, total	1 090 854	4
Asphalt contractor, private driveways and parking areas	750 188	5
Excavation work: earthmoving or land clearing contractor, connected with buildings	340 666	8
Other construction activities, nec	923 092	3
Other business activities secondary to construction activities, total	1 580 421	2
Manufacturing—products manufactured and sold to others, secondary to construction activities	751 270	3
Mining—minerals produced and sold to others, secondary to construction activities	249 828	1
Other business activities, secondary to construction activities, nec	579 323	3

Table 10. **Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
				A	B				C	D	E
234110, HIGHWAY & STREET CONSTRUCTION											
Total	11 270	277 979	9 527 626	48 472 284	X	39 102 084	22 983 910	9 370 199	1	1	1
Establishments not specializing	966	55 770	1 992 344	9 282 551	X	7 461 434	4 671 595	1 821 117	3	2	2
Establishments specializing 51 percent or more	10 304	222 209	7 535 283	39 189 734	32 099 858	31 640 652	18 312 316	7 549 082	1	1	2
Highway and street general contractor											
All establishments specializing	7 664	158 017	5 162 342	26 335 583	21 602 045	20 971 312	12 536 675	5 364 271	2	2	2
Specialization 100 percent	4 146	55 334	1 765 983	9 424 331	9 424 331	7 779 195	4 562 882	1 645 137	3	3	4
Specialization 90 to 99 percent	812	17 907	583 817	2 975 259	2 800 339	2 337 609	1 300 544	637 651	6	6	7
Specialization 80 to 89 percent	529	16 397	528 225	2 691 832	2 243 277	2 073 966	1 333 807	617 866	6	5	5
Specialization 70 to 79 percent	600	21 467	700 870	3 595 513	2 634 063	2 799 879	1 715 910	795 635	6	6	6
Specialization 60 to 69 percent	896	27 092	903 718	4 416 939	2 759 273	3 436 012	2 152 203	980 926	6	5	4
Specialization 51 to 59 percent	682	19 820	679 728	3 231 709	1 740 762	2 544 652	1 471 330	687 057	6	4	4
Paving contractor—asphalt or concrete for highways, streets, or airport runways											
All establishments specializing	2 531	63 286	2 317 579	12 729 047	10 378 840	10 593 443	5 714 933	2 135 604	3	3	5
Specialization 100 percent	1 145	18 005	650 707	3 898 595	3 898 595	3 221 960	1 644 186	676 635	7	7	13
Specialization 90 to 99 percent	245	7 986	281 196	1 567 797	1 477 382	1 334 043	740 087	233 755	6	6	8
Specialization 80 to 89 percent	361	11 608	398 780	2 079 868	1 736 459	1 760 029	1 056 682	319 839	8	5	4
Specialization 70 to 79 percent	290	7 440	269 274	1 437 605	1 064 218	1 239 051	668 968	198 554	10	8	6
Specialization 60 to 69 percent	243	9 159	360 005	1 889 486	1 188 955	1 514 346	767 453	375 140	6	5	6
Specialization 51 to 59 percent	247	9 089	357 618	1 855 695	1 013 231	1 524 014	837 556	331 680	8	9	8

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
234110, HIGHWAY & STREET CONSTRUCTION										
United States	48 472 284	7 358	37 604 719	1 902	3 571 928	3 863	7 295 638	1	1	3
Alabama	851 585	242	723 314	^{s48}	30 936	66	97 334	9	10	21
Alaska	405 925	90	337 850	7	4 853	34	63 223	4	7	Z
Arizona	847 500	93	680 944	38	^{s49} 284	90	117 272	10	12	41
Arkansas	313 914	63	169 251	23	128 348	^{s32}	16 315	15	29	Z
California	4 240 845	453	3 136 764	18	49 135	372	1 054 946	4	3	1
Colorado	1 002 563	161	699 449	43	96 581	67	206 533	7	8	4
Connecticut	450 611	171	387 988	^{s22}	16 163	59	46 460	7	8	8
Delaware	158 247	35	138 722	44	16 653	^{s9}	2 872	5	5	12
District of Columbia.....	84 542	6	D	14	D	2	D	Z	D	D
Florida	2 463 592	210	1 872 784	48	25 291	170	565 517	4	5	9
Georgia	1 343 537	226	1 028 956	83	89 162	90	225 419	9	12	29
Hawaii *	D	28	174 232	3	D	^{s22}	D	D	4	D
Idaho	393 645	96	230 363	20	42 765	^{s43}	120 517	13	19	1
Illinois	2 232 096	295	1 875 750	23	51 398	179	304 949	6	4	9
Indiana	1 032 312	106	938 271	37	41 866	^{s47}	52 175	5	5	4
Iowa	923 592	131	726 100	49	64 955	^{s34}	^{s132} 537	9	11	38
Kansas	1 029 152	124	687 186	45	211 688	10	130 278	5	8	1
Kentucky	718 999	118	565 995	65	67 446	^{s36}	85 559	7	9	12
Louisiana	718 914	98	472 246	19	74 148	^{s46}	172 520	7	7	14
Maine	108 667	38	88 099	^{s7}	^{s1} 946	9	^{s18} 622	14	12	72
Maryland	1 039 743	140	830 849	51	68 500	63	140 394	4	8	3
Massachusetts	910 006	147	672 073	42	35 734	98	202 199	10	13	4
Michigan	1 376 955	251	1 154 132	29	58 657	100	164 166	9	11	6
Minnesota	1 065 413	197	991 255	8	18 007	65	56 150	8	8	3
Mississippi	814 019	83	561 410	55	157 962	58	94 648	14	20	20
Missouri	1 094 289	157	835 488	58	106 681	63	152 120	11	14	10
Montana	292 318	^{s48}	215 119	17	33 130	61	44 070	14	18	1
Nebraska	430 821	68	287 766	31	69 589	44	73 466	8	11	2
Nevada	586 291	30	424 571	24	98 574	16	^{s63} 147	3	3	1
New Hampshire	245 022	68	185 127	44	47 538	^{s28}	^{s12} 356	19	23	39
New Jersey	1 151 910	245	843 287	47	75 520	160	233 103	7	9	3
New Mexico	496 166	62	365 639	22	67 710	13	^{s62} 817	9	11	25
New York	2 049 848	423	1 693 538	48	45 352	198	310 958	5	6	2
North Carolina	1 647 677	195	1 282 149	69	147 350	186	218 177	3	4	10
North Dakota	301 554	71	209 794	20	51 839	38	39 922	7	14	14
Ohio	2 085 147	257	1 736 978	25	50 097	137	298 071	6	7	2
Oklahoma	592 086	71	399 866	40	^{s127} 952	^{s43}	64 268	12	10	43
Oregon	659 100	223	512 821	32	77 711	77	68 568	5	7	9
Pennsylvania	1 840 446	302	1 405 372	66	121 422	198	313 652	4	5	14
Rhode Island	D	32	D	4	D	^{s10}	D	D	D	D
South Carolina	746 359	81	387 082	74	123 469	130	235 808	7	15	2
South Dakota	266 548	57	126 395	37	95 998	53	^{s44} 155	14	22	14
Tennessee	1 191 103	133	976 471	46	89 423	82	125 208	5	6	2
Texas	2 875 403	347	2 311 503	35	206 079	209	357 821	5	5	20
Utah	591 884	76	469 144	^{s36}	44 920	21	77 819	5	8	14
Vermont	62 674	^{s26}	23 809	12	27 561	^{s5}	^{s11} 304	8	20	11
Virginia	1 616 946	330	1 250 150	79	192 141	89	174 655	5	6	11
Washington	1 256 867	239	1 134 893	60	31 253	125	90 721	5	5	3
West Virginia	378 915	66	232 775	74	124 471	11	21 669	9	13	14
Wisconsin	931 338	124	847 314	^{s18}	14 852	^{s58}	69 172	6	7	33
Wyoming	241 598	24	157 533	42	69 239	10	^{s14} 827	10	3	33

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

NUMBER OF CONSTRUCTION WORKERS: QUARTERLY PAY PERIOD

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS NOT REPORTING INVENTORIES

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH NO INVENTORIES

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY PERIOD

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

NUMBER OF PROPRIETORS AND WORKING PARTNERS

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **All other nonresidential buildings.** Includes nonresidential buildings that are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military nonbuilding such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 7353 Heavy construction equipment, rental and leasing (pt)
- 8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

- 1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

- 1721 Painting and paper hanging special trade contractors
- 1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Bridge and Tunnel Construction

1997

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Construction

Industry Series



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Construction

Industry Series



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division	301-457-4673
Service Sector Statistics Division	301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
234120	Bridge & tunnel construction	1 177	47 764	1 847 160	9 539 041	7 172 002	4 493 556	2 695 851	242 267
162200	Bridge, tunnel, & elevated highway construction contractors	1 171	47 681	1 843 671	9 530 810	7 165 568	4 488 512	2 694 099	242 191
874132	Management services (pt)	6	84	3 489	8 231	6 434	5 044	1 752	76

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers	
234120, BRIDGE & TUNNEL CONSTRUCTION										
United States	1 177	47 764	38 201	32 942	40 052	42 529	37 283	1 847 160	1 378 759	2
Alabama	21	563	441	431	421	470	442	15 896	10 642	14
Alaska	3	37	26	27	42	D	D	2 237	1 586	Z
Arizona	^{\$14} 2	732	590	590	593	555	623	18 942	15 281	7
Arkansas	19	267	228	189	256	263	203	7 308	5 482	19
California	85	3 796	3 026	3 037	3 123	3 076	2 867	164 217	123 246	6
Colorado	17	590	457	425	478	491	434	22 786	16 608	1
Connecticut	13	504	380	239	394	465	422	21 940	14 472	2
Delaware	4	234	202	157	217	212	220	9 322	7 087	Z
District of Columbia	2	D	D	D	D	D	D	D	D	D
Florida	26	1 879	1 554	1 410	1 590	S	S	56 827	S	Z
Georgia	23	906	612	609	611	623	607	25 736	15 303	15
Hawaii *	3	45	D	45	41	43	D	D	D	7
Idaho	2	D	D	D	D	D	D	D	D	D
Illinois	46	2 512	1 960	1 500	2 191	2 246	1 903	96 454	74 071	9
Indiana	^{\$46} 2	1 867	1 594	1 383	1 761	1 746	1 486	70 626	54 456	8
Iowa	42	1 161	970	728	1 072	1 139	941	42 051	32 160	23
Kansas	11	558	483	446	508	589	389	22 979	18 165	Z
Kentucky	^{\$40} 8	728	630	561	653	683	623	22 951	17 780	11
Louisiana	8	^{\$250}	^{\$217}	^{\$226}	^{\$176}	^{\$228}	^{\$238}	^{\$7 779}	^{\$5 828}	52
Maine	11	574	486	236	755	529	426	15 641	11 657	19
Maryland	18	910	728	654	755	799	705	29 283	22 311	Z
Massachusetts	38	3 862	2 436	2 436	2 777	3 034	2 996	179 029	120 277	3
Michigan	^{\$40} 21	886	745	476	907	887	711	42 240	33 843	9
Minnesota	21	835	678	441	739	845	687	33 698	24 889	16
Mississippi	14	583	500	510	516	516	458	14 214	11 908	Z
Missouri	18	989	838	689	879	951	833	34 836	27 819	Z
Montana	4	248	D	D	182	194	162	D	4 448	Z
Nebraska	6	D	D	D	D	D	D	D	D	D
Nevada	2	D	D	D	D	D	D	D	D	D
New Hampshire	7	168	137	78	158	187	123	6 546	3 912	6
New Jersey	26	641	493	442	498	517	514	31 142	23 064	9
New Mexico	^{\$4}	^{\$62}	^{\$41}	S	^{\$30}	^{\$36}	^{\$61}	S	S	74
New York	105	3 247	2 602	1 984	2 626	3 095	2 703	164 509	130 600	7
North Carolina	^{\$33} 6	844	609	645	632	594	564	26 320	19 188	20
North Dakota	6	446	394	238	378	541	417	16 697	13 565	Z
Ohio	72	1 926	1 464	1 114	1 568	1 716	1 457	81 176	58 745	3
Oklahoma	22	997	923	839	933	1 034	886	24 850	19 906	7
Oregon	13	438	347	344	364	399	280	20 084	14 939	Z
Pennsylvania	44	2 333	1 804	1 321	2 040	2 265	1 589	104 320	80 392	Z
Rhode Island	^{\$5}	S	S	S	S	S	S	S	S	S
South Carolina	^{\$28}	^{\$763}	^{\$675}	^{\$679}	^{\$638}	^{\$737}	^{\$648}	^{\$23 072}	^{\$19 143}	56
South Dakota	^{\$9}	206	144	169	127	^{\$160}	^{\$123}	9 730	6 061	36
Tennessee	22	1 117	908	938	936	914	843	39 821	29 447	Z
Texas	71	1 998	1 607	1 523	1 548	1 641	1 715	60 426	46 797	20
Utah	^{\$13}	428	351	317	357	419	312	14 707	11 525	22
Vermont	^{\$7}	94	76	D	104	111	D	2 604	D	15
Virginia	37	2 950	2 437	2 335	2 420	2 587	2 408	96 307	67 156	23
Washington	21	859	620	531	620	751	579	43 709	30 663	2
West Virginia	^{\$18}	361	307	216	348	373	291	16 187	13 002	26
Wisconsin	15	920	808	547	957	1 068	661	40 624	34 477	Z
Wyoming	2	D	D	D	D	D	D	D	D	D

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
234120, BRIDGE & TUNNEL CONSTRUCTION										
United States	9 539 041	7 172 002	4 493 556	2 695 851	2 367 039	256 375	242 267	2 299 770	2	3
Alabama	77 452	55 901	30 277	D	21 551	932	3 414	31 659	10	7
Alaska	11 851	10 149	5 850	D	1 702	543	368	7 514	Z	Z
Arizona	86 180	67 799	33 844	33 954	18 381	6 307	D	33 324	8	D
Arkansas	33 394	25 905	13 472	12 433	7 489	792	680	10 582	9	1
California	884 834	608 426	405 262	203 630	276 409	40 415	15 202	146 907	13	7
Colorado	130 492	93 788	43 234	50 554	36 704	5 987	2 681	15 148	1	3
Connecticut	91 195	71 461	44 111	27 384	19 734	2 649	2 538	34 865	2	4
Delaware	30 855	23 652	13 876	9 776	7 203	D	D	20 080	Z	D
District of Columbia	D	D	D	D	D	D	D	D	D	D
Florida	276 495	179 464	117 618	D	97 031	7 985	S	75 122	Z	S
Georgia	110 532	88 024	60 728	27 296	22 508	1 108	4 960	49 834	9	Z
Hawaii *	D	D	D	D	D	D	\$145	937	D	61
Idaho	D	D	D	D	D	D	D	D	D	D
Illinois	610 249	360 435	220 814	147 206	249 813	19 177	17 871	155 475	8	21
Indiana	300 871	226 402	125 287	101 917	74 469	6 920	8 357	104 924	4	7
Iowa	183 909	149 688	82 537	D	\$34 221	\$4 069	4 792	60 725	28	25
Kansas	102 192	81 110	50 328	D	21 082	2 569	6 172	36 596	Z	Z
Kentucky	120 621	91 978	45 111	46 867	28 643	1 800	4 140	42 177	5	Z
Louisiana	\$29 440	\$25 788	\$16 592	\$9 197	\$3 651	\$1 784	\$922	7 715	55	61
Maine	65 263	53 298	30 980	D	11 964	1 293	1 298	19 027	22	2
Maryland	138 242	94 840	50 032	44 808	43 402	4 382	3 866	37 972	1	Z
Massachusetts	1 333 096	1 146 466	931 543	214 922	186 630	20 250	12 279	116 833	2	12
Michigan	200 810	152 199	92 304	D	48 611	2 353	5 835	65 905	6	17
Minnesota	189 511	150 795	99 518	D	38 716	5 546	2 174	62 911	22	Z
Mississippi	98 741	49 854	17 615	D	48 887	2 260	2 586	35 289	Z	Z
Missouri	139 152	107 256	60 748	D	31 896	2 154	6 023	43 442	Z	Z
Montana	D	29 374	14 176	15 198	D	594	D	D	Z	D
Nebraska	D	D	14 176	D	D	D	D	D	D	D
Nevada	D	D	18 614	D	D	D	D	13 973	D	D
New Hampshire	28 145	19 320	10 439	D	8 825	523	911	10 788	6	7
New Jersey	136 848	107 417	59 084	D	29 432	2 281	6 707	48 956	13	15
New Mexico	S	S	S	\$3 343	S	S	S	\$6 001	S	S
New York	741 903	596 579	424 497	173 038	145 324	21 754	19 634	164 866	10	5
North Carolina	132 460	115 764	82 527	33 331	16 696	3 074	4 063	33 624	30	23
North Dakota	64 768	54 996	31 992	23 004	9 772	2 569	3 816	24 074	Z	Z
Ohio	365 736	255 593	148 668	D	110 143	11 613	8 557	85 460	2	3
Oklahoma	173 824	137 355	76 164	61 191	36 469	3 821	5 666	46 310	14	22
Oregon	107 697	78 350	41 605	36 745	29 347	2 202	2 507	20 102	Z	Z
Pennsylvania	517 801	393 621	181 928	D	124 180	12 305	14 310	112 648	Z	Z
Rhode Island	D	S	D	S	D	\$154	D	\$5 082	S	D
South Carolina	\$95 083	\$67 535	\$33 602	\$33 932	\$27 548	S	1 090	\$36 482	55	31
South Dakota	32 425	25 577	21 950	3 628	6 848	278	2 460	\$22 569	28	22
Tennessee	223 090	184 387	104 520	D	38 703	6 646	6 958	54 633	Z	Z
Texas	294 683	244 957	128 735	D	49 727	\$15 890	6 666	76 910	23	18
Utah	113 001	62 074	37 745	24 329	50 927	4 585	\$3 098	20 224	26	43
Vermont	9 521	7 405	3 507	D	2 116	544	642	8 486	23	20
Virginia	410 544	313 524	177 049	D	97 020	7 098	15 289	116 799	16	23
Washington	261 096	173 063	109 441	D	88 033	5 299	3 643	52 109	1	3
West Virginia	66 044	48 740	20 164	28 576	17 304	1 641	1 533	18 520	16	7
Wisconsin	247 287	157 515	92 718	64 797	89 772	3 651	6 481	67 032	Z	Z
Wyoming	D	D	D	D	D	D	D	D	D	D

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
234120, BRIDGE & TUNNEL CONSTRUCTION			234120, BRIDGE & TUNNEL CONSTRUCTION—Con.		
Number of establishments in business during year	1 177	5	Selected costs—Con.		
Number of proprietors and working partners	193	15	Cost of selected power, fuels, and lubricants	120 471	2
Total number of employees	47 764	2	Cost of electricity	23 199	1
Number of construction workers in March	32 942	3	Cost of natural gas and manufactured gas	4 259	4
Number of construction workers in May	40 052	2	Cost of gasoline and diesel fuel	84 140	3
Number of construction workers in August	42 529	2	Cost of on-highway use of gasoline and diesel fuel	49 852	4
Number of construction workers in November	37 283	2	Cost of off-highway use of gasoline and diesel fuel	34 288	2
Average number of construction workers	38 201	2	Cost of all other fuels and lubricants	8 873	2
Number of other employees in March	9 336	2	Rental cost for machinery, equipment, and buildings	256 375	7
Number of other employees in May	9 586	2	Rental cost for machinery and equipment	225 038	8
Number of other employees in August	9 732	2	Rental cost for buildings	31 337	3
Number of other employees in November	9 597	3	Selected purchased services	166 800	3
Average number of other employees	9 563	2	Purchased communication services	27 627	3
Payroll, all employees	1 847 160	2	Cost of repairs to buildings and other structures	7 259	3
Payroll, construction workers	1 378 759	2	Cost of repairs to machinery and equipment	131 913	4
Payroll, other employees	468 401	2	Value of construction work	9 539 041	2
First-quarter payroll, all employees	372 334	2	Value of construction work on government owned projects	8 453 312	2
Fringe benefits, all employees	608 117	2	Value of construction work on federally owned projects	882 107	4
Legally required expenditures	344 821	1	Value of construction work on state and locally owned projects	7 571 205	2
Voluntary expenditures	263 297	2	Value of construction work on privately owned projects	1 085 729	9
Value of business done	9 556 446	2	Beginning-of-year gross book value of depreciable assets	2 145 675	2
Value of construction work	9 539 041	2	Capital expenditures, other than land	242 267	3
Value of construction work subcontracted in from others	1 410 061	5	Retirements and disposition of depreciable assets	88 171	1
Other business receipts	*17 405	41	End-of-year gross book value of depreciable assets	2 299 770	2
Net value of construction	7 172 002	2	Depreciation charges during year	228 731	3
Value added	4 493 556	2	Number of establishments with inventories	356	11
Selected costs	5 062 890	2	Value of construction work for establishments with inventories	2 904 004	3
Cost of materials, components, and supplies	2 575 380	2	End of 1997, inventories of materials and supplies	43 648	4
Cost of construction work subcontracted out to others	2 367 039	2	End of 1996, inventories of materials and supplies	45 021	5
			Number of establishments with no inventories	521	6
			Value of construction work for establishments with no inventories	5 536 820	3
			Number of establishments not reporting inventories	301	11
			Value of construction work for establishments not reporting inventories	1 098 217	3

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
234120, BRIDGE & TUNNEL CONSTRUCTION											
Total	1 177	47 764	1 847 160	9 556 446	9 539 041	7 172 002	4 493 556	2 695 851	2 367 039	2	2
Establishments with 1 to 4 employees	S	645	14 486	88 602	88 575	76 844	48 547	28 324	*11 731	19	16
Establishments with 5 to 9 employees	212	1 485	43 120	209 624	208 602	179 616	124 088	56 550	28 986	18	21
Establishments with 10 to 19 employees	227	3 071	106 826	499 858	496 389	424 468	263 786	164 151	71 921	13	16
Establishments with 20 to 49 employees	269	8 652	319 714	1 690 026	1 679 331	1 316 749	803 177	524 267	362 582	8	9
Establishments with 50 to 99 employees	119	8 275	299 950	1 406 874	1 404 683	1 085 255	640 819	446 627	319 428	8	5
Establishments with 100 to 249 employees	83	12 458	511 273	2 521 419	2 521 419	1 780 893	1 049 139	731 755	740 525	1	1
Establishments with 250 to 499 employees	21	7 240	335 901	1 914 497	1 914 497	1 456 118	969 977	486 141	458 379	Z	Z
Establishments with 500 to 999 employees	9	5 940	215 889	1 225 546	1 225 546	852 059	594 023	258 036	373 487	Z	Z
Establishments with 1,000 employees or more	—	—	—	—	—	—	—	—	—	—	—

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
234120, BRIDGE & TUNNEL CONSTRUCTION											
Total	1 177	47 764	1 847 160	9 556 446	9 539 041	7 172 002	4 493 556	2 695 851	2 367 039	2	2
Establishments with value of business done less than \$25,000	S	D	S	S	S	S	S	S	S	D	S
Establishments with value of business done \$25,000 to \$49,999	S	D	S	S	S	S	S	S	S	D	S
Establishments with value of business done \$50,000 to \$99,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$100,000 to \$249,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$250,000 to \$499,999	128	546	10 068	44 469	44 442	41 350	27 411	13 966	3 092	22	18
Establishments with value of business done \$500,000 to \$999,999	199	1 441	34 575	138 090	137 513	123 568	80 666	43 479	13 945	22	18
Establishments with value of business done \$1,000,000 to \$2,499,999	223	2 770	87 736	371 485	370 357	314 467	203 813	111 782	55 889	10	13
Establishments with value of business done \$2,500,000 to \$4,999,999	173	4 370	152 471	655 196	646 611	548 895	328 194	229 285	97 717	8	12
Establishments with value of business done \$5,000,000 to \$9,999,999	148	6 978	234 771	1 058 448	1 056 443	862 053	532 648	331 410	194 390	13	11
Establishments with value of business done \$10,000,000 or more	215	31 502	1 324 918	7 276 824	7 271 741	5 270 492	3 313 466	1 962 108	2 001 249	1	2

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
234120, BRIDGE & TUNNEL CONSTRUCTION								
Total	9 539 041	6 417 815	2 512 116	609 110	2	2	2	5
Building construction, total	227 861	170 950	51 829	5 082	3	3	2	18
Manufacturing and light industrial buildings	84 585	72 394	10 458	^s 1 732	9	8	8	50
All other nonresidential buildings	143 276	98 556	41 370	3 350	Z	Z	Z	8
Nonbuilding construction, total	9 311 180	6 246 865	2 460 287	604 028	2	2	2	5
Highways, streets, and related work	807 648	486 298	247 430	73 921	3	3	4	9
Bridges, tunnels, and elevated highways	7 526 121	5 062 918	1 965 055	498 147	2	2	2	5
Bridges and elevated highways	6 039 475	3 773 668	1 817 463	448 344	2	3	2	6
Tunnels	1 486 646	1 289 250	147 592	49 803	1	1	4	7
Sewers, water mains, and related facilities	211 557	170 844	33 250	7 463	9	11	5	1
Sewers, sewer lines, septic systems, and related facilities	141 407	118 127	19 204	4 076	7	8	4	1
Water mains and related facilities	70 150	52 717	14 046	3 387	13	17	8	1
Sewage and water treatment plants	91 198	72 699	18 346	S	Z	Z	Z	S
Sewage treatment plants	50 833	44 645	D	D	Z	Z	D	D
Water treatment plants	40 365	28 054	D	D	Z	Z	D	D
Mass transit construction	213 615	152 880	58 304	2 431	Z	Z	1	Z
Urban mass transit construction	102 016	83 652	D	D	Z	Z	D	D
Railroad construction	111 600	69 229	D	D	1	Z	D	D
Marine construction	72 239	57 278	10 464	4 497	Z	Z	3	Z
Other nonbuilding construction, nec	388 801	243 947	127 439	17 415	6	7	5	17

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				A	B						
234120, BRIDGE & TUNNEL CONSTRUCTION											
Total	1 177	47 764	1 847 160	9 539 041	X	7 172 002	4 493 556	2 367 039	2	2	2
Establishments not specializing ..	68	5 125	217 966	1 289 246	X	1 036 564	790 609	252 682	3	2	1
Establishments specializing 51 percent or more	1 110	42 639	1 629 194	8 249 795	6 888 973	6 135 438	3 702 947	2 114 357	3	2	2
Bridges, tunnels, and elevated highways											
All establishments specializing	1 110	42 639	1 629 194	8 249 795	6 888 973	6 135 438	3 702 947	2 114 357	3	2	2
Specialization 100 percent	652	18 700	727 426	3 472 091	3 472 091	2 631 458	1 558 702	840 633	4	3	3
Specialization 90 to 99 percent ...	90	2 601	100 566	547 816	509 040	408 261	240 807	139 555	8	10	10
Specialization 80 to 89 percent ...	62	4 909	189 506	952 468	794 200	725 434	399 855	227 034	3	2	1
Specialization 70 to 79 percent ...	121	5 863	213 304	1 095 565	807 956	784 181	491 604	311 385	13	8	4
Specialization 60 to 69 percent ...	110	7 091	286 367	1 623 637	1 007 499	1 167 240	772 266	456 397	3	6	4
Specialization 51 to 59 percent ...	74	3 476	112 026	558 218	298 186	418 865	239 713	139 353	7	6	1

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
234120, BRIDGE & TUNNEL CONSTRUCTION		
Total	9 556 446	2
Building, developing, and general contracting, total	^r109 102	Z
Building construction on land owned by others—general contractor or design-builder	109 102	Z
Heavy construction, total	9 225 699	2
Construction management—heavy construction	52 291	1
Excavation work, earthmoving or land clearing contractor, not connected with buildings	143 368	4
Heavy construction contractor	8 181 168	2
Highway and street general contractor	668 117	3
Paving contractor—asphalt or concrete for highways, streets, or airport runways	97 892	2
Pile driving contractor	82 863	11
Other construction activities, nec	204 175	15
Other business activities secondary to construction activities, total	^s17 470	41
Other business activities, secondary to construction activities, nec	^s 17 470	41

Table 10. **Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
234120, BRIDGE & TUNNEL CONSTRUCTION											
Total	1 177	47 764	1 847 160	9 539 041	X	7 172 002	4 493 556	2 367 039	2	2	2
Establishments not specializing	33	2 236	75 182	346 389	X	278 115	164 728	68 274	12	10	4
Establishments specializing 51 percent or more	1 145	45 528	1 771 977	9 192 652		6 893 887	4 328 828	2 298 765	2	2	2
Heavy construction contractor											
All establishments specializing	1 139	45 444	1 768 488	9 184 421	8 017 762	6 887 453	4 323 784	2 296 968	2	2	2
Specialization 100 percent	647	20 442	802 472	3 877 087	3 877 087	2 921 638	1 754 652	955 449	3	3	2
Specialization 90 to 99 percent	144	5 527	233 683	1 274 953	1 207 093	1 031 848	625 461	243 105	4	4	5
Specialization 80 to 89 percent	73	6 112	249 826	1 643 234	1 369 592	1 184 604	876 128	458 630	2	1	Z
Specialization 70 to 79 percent	133	5 848	197 422	1 020 218	740 878	757 380	486 455	262 838	15	13	10
Specialization 60 to 69 percent	93	5 238	213 525	981 064	618 424	711 435	423 610	269 629	4	3	2
Specialization 51 to 59 percent	49	2 278	71 559	387 867	204 689	280 549	157 478	107 317	1	1	Z

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
234120, BRIDGE & TUNNEL CONSTRUCTION										
United States	9 539 041	902	6 855 110	541	2 164 343	253	519 588	2	2	1
Alabama	91 758	17	45 161	9	D	4	D	6	13	D
Alaska	D	2	D	1	D	1	D	D	D	D
Arizona	104 445	^{§14}	82 435	9	22 010	—	—	9	8	30
Arkansas	87 311	17	D	7	54 933	2	D	2	D	Z
California	1 012 975	69	839 186	8	150 241	16	23 549	10	12	Z
Colorado	83 633	^{§14}	82 051	^{§8}	D	2	D	1	1	D
Connecticut	106 241	11	87 028	4	D	1	D	2	2	D
Delaware	43 461	3	30 665	10	D	1	D	Z	Z	D
District of Columbia	99 128	2	D	9	D	—	—	Z	D	D
Florida	335 264	14	122 329	16	122 972	9	89 963	Z	Z	Z
Georgia	244 649	15	96 273	24	145 115	7	3 260	5	10	4
Hawaii *	57 730	3	D	3	D	—	—	2	D	D
Idaho	18 893	2	D	7	D	—	—	12	D	D
Illinois	321 068	32	245 453	9	41 628	12	33 987	9	12	Z
Indiana	180 989	^{§38}	146 399	8	18 204	7	16 386	6	7	Z
Iowa	148 284	25	103 305	9	14 022	^{§17}	30 957	26	37	Z
Kansas	85 318	10	50 242	11	D	1	D	1	Z	D
Kentucky	110 023	^{§33}	72 496	^{§18}	28 435	6	9 092	10	3	38
Louisiana	58 918	6	D	5	31 131	2	D	27	D	Z
Maine	60 317	6	33 058	4	9 376	^{§5}	^{§17} 882	19	1	Z
Maryland	138 053	10	65 564	11	48 169	5	24 321	1	2	Z
Massachusetts	1 066 692	34	996 005	^{§23}	64 050	4	6 637	2	2	2
Michigan	202 338	^{§35}	191 683	5	3 215	5	7 440	7	7	Z
Minnesota	216 468	17	153 265	3	D	4	D	15	22	D
Mississippi	67 751	10	59 543	5	4 941	4	3 267	Z	Z	Z
Missouri	174 992	14	D	12	85 862	4	D	Z	D	Z
Montana	40 013	4	D	1	D	—	—	Z	D	D
Nebraska	48 893	2	D	14	D	3	D	37	D	D
Nevada	D	2	D	^{§8}	D	—	—	D	D	D
New Hampshire	40 344	6	25 512	7	D	1	D	4	6	D
New Jersey	229 084	16	109 782	36	99 765	9	19 536	8	14	10
New Mexico	15 541	S	D	4	11 489	1	D	18	D	Z
New York	963 319	76	627 403	12	266 872	29	69 044	4	6	Z
North Carolina	191 122	^{§29}	103 817	^{§44}	83 070	4	4 234	19	34	7
North Dakota	53 470	4	D	—	—	2	D	Z	D	—
Ohio	336 661	64	309 260	6	18 081	8	9 320	2	2	Z
Oklahoma	131 464	15	106 899	3	14 639	7	9 926	21	26	Z
Oregon	120 223	12	79 598	11	D	1	D	1	Z	D
Pennsylvania	298 664	31	279 178	^{§22}	^{§13} 676	8	5 810	3	Z	64
Rhode Island	S	S	S	4	D	2	D	S	S	D
South Carolina	117 928	^{§12}	^{§68} 863	^{§30}	35 103	S	^{§13} 962	37	62	1
South Dakota	^{§20} 957	^{§8}	^{§12} 112	2	D	1	D	41	71	D
Tennessee	D	16	D	S	^{§2} 476	5	D	D	D	50
Texas	382 665	58	271 173	5	99 333	13	12 158	19	26	Z
Utah	79 960	7	59 640	4	17 746	S	^{§2} 574	14	18	Z
Vermont	12 440	^{§7}	7 954	3	4 486	—	—	19	29	Z
Virginia	517 112	26	348 898	^{§36}	160 942	^{§11}	^{§7} 272	11	16	Z
Washington	169 189	20	153 283	9	D	1	D	1	1	D
West Virginia	149 975	^{§17}	D	13	95 070	1	D	1	D	Z
Wisconsin	196 797	9	193 426	1	D	5	D	Z	Z	D
Wyoming	21 503	2	D	5	D	—	—	Z	D	D

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

NUMBER OF CONSTRUCTION WORKERS: QUARTERLY PAY PERIOD

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS NOT REPORTING INVENTORIES

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH NO INVENTORIES

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY PERIOD

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

NUMBER OF PROPRIETORS AND WORKING PARTNERS

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **All other nonresidential buildings.** Includes nonresidential buildings that are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military nonbuilding such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Water, Sewer, and Pipeline Construction

1997

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Construction

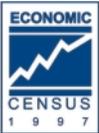
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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division	301-457-4673
Service Sector Statistics Division	301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
234910	Water, sewer, & pipeline construction	8 042	162 566	5 522 281	22 204 058	19 126 738	12 280 098	7 062 344	945 049
162310	Water, sewer, pipeline, & communications & power line constr (pt)	8 013	162 401	5 514 426	22 173 112	19 107 938	12 265 614	7 057 640	944 702
874133	Management services (pt)	29	165	7 855	30 947	18 801	14 484	4 705	347

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		All	Con- struction workers	January to March	April to June	July to September	October to December	All employees	Construction workers	
234910, WATER, SEWER, & PIPELINE CONSTRUCTION										
United States	8 042	162 566	134 023	118 378	136 968	145 154	135 592	5 522 281	4 087 007	2
Alabama	142	2 768	2 267	2 252	2 212	2 404	2 201	79 446	49 571	16
Alaska	29	342	267	122	297	411	239	16 638	12 136	25
Arizona	128	4 276	3 614	3 322	3 764	3 822	3 549	133 380	100 205	6
Arkansas	65	922	785	819	851	915	554	20 297	15 524	16
California	651	13 220	10 645	9 957	10 459	11 141	11 022	560 687	407 988	5
Colorado	207	3 968	3 364	3 583	3 099	3 507	3 267	126 073	96 204	9
Connecticut	93	1 234	951	685	1 006	1 060	1 050	49 026	34 306	9
Delaware	22	871	741	725	745	764	732	30 013	21 722	2
District of Columbia	2	D	D	D	D	D	D	D	D	D
Florida	295	7 685	6 334	6 245	6 522	6 373	6 195	233 962	170 890	13
Georgia	321	4 442	3 537	3 373	3 533	3 668	3 574	126 884	88 006	11
Hawaii *	12	645	505	487	503	499	499	28 492	21 377	9
Idaho	26	512	439	373	^s 483	^s 488	411	14 335	11 068	36
Illinois	342	5 691	4 841	3 378	5 180	5 670	5 135	192 674	150 845	8
Indiana	203	3 968	3 244	2 860	3 233	3 552	3 329	138 233	107 438	10
Iowa	166	1 397	1 147	617	1 369	1 410	1 190	48 205	37 547	22
Kansas	53	2 536	2 149	2 099	2 397	2 142	1 958	69 077	56 614	9
Kentucky	151	1 730	1 370	1 335	1 532	1 220	1 220	49 290	36 432	14
Louisiana	168	6 838	5 994	5 510	6 207	6 484	5 773	215 264	167 401	7
Maine	18	364	305	209	322	372	318	14 166	10 587	14
Maryland	122	2 826	2 245	2 201	2 373	2 273	2 132	100 078	65 125	10
Massachusetts	229	2 542	1 958	1 540	2 164	2 280	1 850	96 742	66 848	11
Michigan	281	5 323	4 301	3 380	4 660	4 903	4 260	225 980	158 020	10
Minnesota	216	3 641	2 947	1 444	3 354	3 775	3 218	138 456	106 890	14
Mississippi	66	1 972	1 472	1 730	1 540	1 164	1 456	48 463	32 318	24
Missouri	238	2 570	2 103	1 891	2 129	2 326	2 064	84 649	66 164	19
Montana	82	904	722	382	692	971	842	24 550	18 374	23
Nebraska	52	624	488	333	466	561	594	19 010	14 117	18
Nevada	51	2 402	2 088	2 081	2 109	2 054	2 109	86 646	69 155	7
New Hampshire	9	^s 305	^s 274	^s 113	^s 250	^s 349	^s 384	^s 7 683	^s 6 659	62
New Jersey	194	3 821	3 111	2 384	3 225	3 413	3 422	169 885	130 816	19
New Mexico	59	3 078	2 676	2 372	2 582	2 737	3 014	88 830	70 915	8
New York	276	4 492	3 526	2 948	3 585	4 021	3 550	201 530	148 025	8
North Carolina	347	6 278	5 154	5 021	5 162	5 224	5 208	168 688	119 457	11
North Dakota	29	235	190	116	205	248	193	8 659	5 930	16
Ohio	270	5 062	4 121	3 354	4 295	4 377	4 458	180 730	130 461	10
Oklahoma	243	3 410	2 877	2 373	2 711	3 480	2 943	98 736	77 192	14
Oregon	223	2 796	2 312	2 049	2 306	2 490	2 404	101 408	80 437	11
Pennsylvania	272	4 842	3 791	3 069	4 085	4 165	3 844	169 457	119 908	10
Rhode Island	20	277	213	164	224	246	217	9 443	5 381	13
South Carolina	135	2 159	1 770	1 671	1 738	1 871	1 798	53 117	35 421	13
South Dakota	38	404	319	178	337	407	355	9 442	6 255	21
Tennessee	167	2 842	2 482	2 281	2 542	2 741	2 366	75 012	61 336	15
Texas	511	18 134	15 590	14 758	15 391	16 517	15 694	577 693	437 910	6
Utah	62	902	659	589	688	688	670	22 488	17 188	27
Vermont	^s 18	D	D	D	D	D	D	D	D	D
Virginia	240	7 768	6 449	6 286	6 431	6 592	6 484	232 183	162 562	9
Washington	288	4 407	3 319	2 898	3 335	3 782	3 263	187 083	128 854	8
West Virginia	82	1 684	1 439	1 104	1 422	1 803	1 422	53 443	41 648	16
Wisconsin	107	2 644	2 256	1 211	2 648	2 733	2 431	110 643	86 284	12
Wyoming	27	568	490	382	426	644	511	17 741	15 221	16

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
234910, WATER, SEWER, & PIPELINE CONSTRUCTION										
United States	22 204 058	19 126 738	12 280 098	7 062 344	3 077 320	880 428	945 049	7 704 027	2	3
Alabama	358 116	317 297	201 343	115 954	40 819	9 898	20 085	158 150	17	20
Alaska	64 169	58 429	40 923	17 507	5 740	2 752	4 833	21 941	18	2
Arizona	498 561	416 961	264 504	156 266	81 601	24 952	16 423	105 000	8	32
Arkansas	76 812	66 285	47 100	19 185	*10 527	D	4 601	42 634	10	33
California	2 315 046	1 927 953	1 249 092	686 089	387 093	108 884	61 953	518 815	5	8
Colorado	536 238	464 754	254 134	222 575	71 484	26 932	21 104	182 547	11	22
Connecticut	293 656	263 527	190 820	76 171	30 129	4 005	9 987	102 966	4	26
Delaware	93 543	85 312	60 960	24 352	8 231	3 834	4 708	45 587	1	6
District of Columbia	D	D	D	D	D	D	D	D	D	D
Florida	1 142 083	957 829	596 581	389 013	184 254	44 318	44 843	334 973	13	13
Georgia	561 177	462 885	281 414	190 548	98 292	18 478	27 958	236 307	12	21
Hawaii *	104 965	86 798	71 003	22 281	18 168	3 331	1 708	38 154	7	10
Idaho	65 601	D	34 096	D	D	1 174	2 184	33 594	D	22
Illinois	764 092	649 589	391 721	263 240	114 502	36 118	35 758	293 827	10	12
Indiana	575 922	516 102	348 051	174 305	59 820	12 089	31 153	255 377	12	19
Iowa	231 592	199 333	144 254	55 078	32 259	12 057	6 227	75 071	24	39
Kansas	336 060	308 887	195 059	115 076	27 173	11 397	15 675	125 546	7	24
Kentucky	190 855	162 668	102 543	60 125	28 187	4 781	9 008	90 986	12	13
Louisiana	812 078	735 731	445 242	300 538	76 348	39 969	29 165	219 515	6	4
Maine	55 883	46 261	32 976	13 285	9 622	*2 936	3 055	40 461	21	9
Maryland	374 815	324 148	176 271	148 206	50 667	12 104	11 080	147 586	9	10
Massachusetts	409 869	326 857	207 863	122 945	83 011	13 720	31 728	132 341	13	9
Michigan	939 632	807 446	479 055	339 704	132 187	20 187	48 605	353 364	10	17
Minnesota	619 021	509 786	336 730	196 052	109 235	19 927	28 327	240 198	13	28
Mississippi	191 138	163 787	111 456	52 331	27 351	10 377	10 713	87 909	22	29
Missouri	377 511	329 321	192 656	136 665	48 190	6 419	12 986	132 528	20	25
Montana	111 826	104 439	51 642	56 665	*7 387	*4 276	8 278	40 783	22	39
Nebraska	93 171	88 243	55 831	32 411	4 928	1 494	1 332	22 558	9	4
Nevada	368 018	323 044	200 260	131 311	44 975	18 147	17 614	108 388	7	23
New Hampshire	*38 410	*30 525	*20 662	*9 864	*7 885	*1 156	1 160	18 370	63	38
New Jersey	538 713	469 349	348 947	120 858	69 364	29 766	13 825	180 827	11	10
New Mexico	272 825	249 565	156 104	94 048	23 260	11 259	10 816	95 733	10	13
New York	617 249	558 653	391 987	170 187	58 596	21 816	18 741	207 556	9	8
North Carolina	676 284	600 229	400 114	200 730	76 055	21 018	31 833	268 569	12	16
North Dakota	38 350	34 274	19 440	15 016	4 076	438	1 466	19 220	24	26
Ohio	704 815	601 142	394 874	211 891	103 674	25 404	33 766	250 044	10	15
Oklahoma	340 517	306 014	222 489	86 253	34 503	15 649	21 822	163 014	12	17
Oregon	408 723	348 354	212 578	135 776	60 369	23 378	17 149	126 432	11	11
Pennsylvania	641 938	553 861	380 291	175 337	88 077	30 664	35 125	289 280	11	20
Rhode Island	38 679	34 733	25 060	9 674	3 946	1 055	2 321	D	19	8
South Carolina	214 801	182 678	100 637	85 040	32 123	5 830	10 337	93 951	13	19
South Dakota	38 392	34 305	24 051	13 833	4 087	2 203	1 648	26 152	17	14
Tennessee	329 158	294 545	172 183	122 362	34 613	13 342	19 066	127 831	16	25
Texas	2 253 987	1 949 002	1 288 643	684 257	304 985	114 997	79 205	612 082	7	10
Utah	115 552	108 256	71 029	37 227	7 296	6 355	4 636	35 949	24	23
Vermont	D	D	D	D	855	1 013	D	*3 790	D	D
Virginia	884 980	760 807	475 606	288 689	124 173	29 361	55 108	392 053	7	9
Washington	766 138	622 272	405 062	234 221	143 865	26 821	26 986	254 889	7	8
West Virginia	176 542	170 346	125 717	46 610	6 196	3 338	9 307	89 626	12	30
Wisconsin	444 810	383 842	223 710	161 217	60 968	16 164	25 200	214 295	12	18
Wyoming	69 806	50 683	35 895	17 277	19 123	3 222	3 017	23 363	9	8

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
234910, WATER, SEWER, & PIPELINE CONSTRUCTION			234910, WATER, SEWER, & PIPELINE CONSTRUCTION—Con.		
Number of establishments in business during year	8 042	3	Selected costs	10 139 663	2
Number of proprietors and working partners	1 899	9	Cost of materials, components, and supplies	6 557 673	2
Total number of employees	162 566	2	Cost of construction work subcontracted out to others	3 077 320	3
Number of construction workers in March	118 378	2	Cost of selected power, fuels, and lubricants	504 671	2
Number of construction workers in May	136 968	2	Cost of electricity	44 278	4
Number of construction workers in August	145 154	2	Cost of natural gas and manufactured gas	7 982	7
Number of construction workers in November	135 592	2	Cost of gasoline and diesel fuel	410 761	2
Average number of construction workers	134 023	2	Cost of on-highway use of gasoline and diesel fuel	205 893	3
Number of other employees in March	28 296	2	Cost of off-highway use of gasoline and diesel fuel	204 868	3
Number of other employees in May	28 357	2	Cost of all other fuels and lubricants	41 651	7
Number of other employees in August	28 705	2	Rental cost for machinery, equipment, and buildings	880 428	2
Number of other employees in November	28 816	2	Rental cost for machinery and equipment	782 334	3
Average number of other employees	28 543	2	Rental cost for buildings	98 095	6
Payroll, all employees	5 522 281	2	Selected purchased services	784 961	3
Payroll, construction workers	4 087 007	2	Purchased communication services	113 774	3
Payroll, other employees	1 435 273	2	Cost of repairs to buildings and other structures	40 327	14
First-quarter payroll, all employees	1 091 110	2	Cost of repairs to machinery and equipment	630 860	3
Fringe benefits, all employees	1 338 155	2	Value of construction work	22 204 058	2
Legally required expenditures	844 394	2	Value of construction work on government owned projects ..	9 896 442	3
Voluntary expenditures	493 761	2	Value of construction work on federally owned projects ..	819 132	6
Value of business done	22 419 762	2	Value of construction work on state and locally owned projects	9 077 309	3
Value of construction work	22 204 058	2	Value of construction work on privately owned projects	12 307 617	2
Value of construction work subcontracted in from others ...	5 233 440	4	Beginning-of-year gross book value of depreciable assets	7 078 262	2
Other business receipts	215 703	10	Capital expenditures, other than land	945 049	3
Net value of construction	19 126 738	2	Retirements and disposition of depreciable assets	319 283	3
Value added	12 280 098	2	End-of-year gross book value of depreciable assets	7 704 027	2
			Depreciation charges during year	906 544	3
			Number of establishments with inventories	2 008	6
			Value of construction work for establishments with inventories ..	7 289 216	3
			End of 1997, inventories of materials and supplies	117 505	9
			End of 1996, inventories of materials and supplies	99 906	7
			Number of establishments with no inventories	3 805	5
			Value of construction work for establishments with no inventories	11 152 074	3
			Number of establishments not reporting inventories	2 229	6
			Value of construction work for establishments not reporting inventories	3 762 769	5

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
	A	B	C	D	E	F	G	H	I	B	F	
234910, WATER, SEWER, & PIPELINE CONSTRUCTION												
Total	8 042	162 566	5 522 281	22 419 762	22 204 058	19 126 738	12 280 098	7 062 344	3 077 320	2	2	
Establishments with 1 to 4 employees	2 892	6 274	135 822	618 791	616 044	567 376	415 914	154 209	48 669	8	8	
Establishments with 5 to 9 employees	1 440	9 544	283 820	1 120 013	1 108 557	1 013 916	698 656	326 716	94 641	9	9	
Establishments with 10 to 19 employees	1 644	22 745	721 070	3 151 381	3 112 910	2 745 219	1 795 283	988 407	367 691	7	7	
Establishments with 20 to 49 employees	1 399	43 808	1 528 428	6 245 726	6 213 259	5 285 925	3 247 959	2 070 433	927 334	5	5	
Establishments with 50 to 99 employees	430	29 408	1 092 274	4 430 194	4 365 785	3 691 342	2 379 184	1 376 566	674 443	5	4	
Establishments with 100 to 249 employees	185	27 469	955 156	4 077 345	4 020 593	3 463 635	2 137 365	1 383 022	556 958	1	Z	
Establishments with 250 to 499 employees	35	11 010	355 611	1 346 030	1 339 773	1 161 803	740 010	428 050	177 970	Z	Z	
Establishments with 500 to 999 employees	12	7 980	329 582	1 073 607	1 070 463	864 021	667 375	199 790	206 442	Z	Z	
Establishments with 1,000 employees or more	3	4 330	120 518	356 675	356 675	333 503	198 353	135 150	23 172	Z	Z	

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
234910, WATER, SEWER, & PIPELINE CONSTRUCTION											
Total	8 042	162 566	5 522 281	22 419 762	22 204 058	19 126 738	12 280 098	7 062 344	3 077 320	2	2
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	S	249	S	S	S	S	S	S	S	26	S
Establishments with value of business done \$50,000 to \$99,999	S	702	10 164	S	S	S	S	7 886	1 001	21	S
Establishments with value of business done \$100,000 to \$249,999	1 171	2 637	43 493	189 359	187 066	179 411	131 716	49 987	S	12	10
Establishments with value of business done \$250,000 to \$499,999	1 081	4 657	95 506	397 614	395 962	370 034	269 185	102 500	25 929	11	11
Establishments with value of business done \$500,000 to \$999,999	1 268	9 948	272 422	919 149	906 742	835 299	604 211	243 495	71 442	9	9
Establishments with value of business done \$1,000,000 to \$2,499,999	1 617	25 947	791 580	2 657 731	2 637 329	2 426 105	1 628 645	817 862	211 224	8	7
Establishments with value of business done \$2,500,000 to \$4,999,999	905	24 407	779 486	3 180 501	3 139 678	2 723 620	1 742 523	1 021 920	416 058	7	7
Establishments with value of business done \$5,000,000 to \$9,999,999	644	29 956	1 081 162	4 438 090	4 415 008	3 777 614	2 354 816	1 445 879	637 394	6	6
Establishments with value of business done \$10,000,000 or more	480	64 044	2 445 353	10 591 394	10 476 689	8 771 288	5 517 141	3 368 852	1 705 401	1	2

Table 7. **Value of Construction Work for Establishments With Payroll by Type of Construction: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair				
	A	B	C	D	A	B	C	D
234910, WATER, SEWER, & PIPELINE CONSTRUCTION								
Total	22 204 058	15 921 092	3 627 217	2 590 977	2	2	4	4
Building construction, total	610 511	479 172	80 707	50 633	7	8	9	7
Nonbuilding construction, total	21 528 775	15 441 920	3 546 510	2 540 345	2	2	4	5
Highways, streets, and related work	1 219 532	863 750	243 797	111 985	4	5	8	11
Private driveways and parking areas	199 902	125 301	33 514	41 087	11	13	26	16
Bridges, tunnels, and elevated highways	281 654	186 005	66 679	28 969	7	9	6	13
Sewers, water mains, and related facilities	13 742 063	10 299 586	2 097 894	1 344 583	3	3	6	7
Sewers, sewer lines, septic systems, and related facilities	7 995 442	6 049 826	1 273 367	672 249	3	3	7	7
Water mains and related facilities	5 746 621	4 249 760	824 528	672 334	3	3	8	11
Pipeline construction other than sewer or water lines	4 643 780	2 969 950	804 871	868 959	3	3	6	7
Power and communication transmission lines, cables, towers, and related facilities	314 915	231 197	39 253	44 465	7	8	17	9
Sewage and water treatment plants	412 272	239 365	154 450	18 457	5	4	10	9
Sewage treatment plants	205 600	128 459	66 788	10 353	7	4	20	13
Water treatment plants	206 672	110 906	87 662	8 104	5	7	4	8
Conservation and development construction	220 424	168 369	12 127	39 928	7	8	10	16
Other nonbuilding construction, nec	494 234	358 398	93 924	41 912	5	5	16	8
Construction work, nsk	*64 773	X	X	X	72	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
234910, WATER, SEWER, & PIPELINE CONSTRUCTION											
Total	8 042	162 566	5 522 281	22 204 058	X	19 126 738	12 280 098	3 077 320	2	2	3
Establishments not specializing ..	2 367	62 701	2 173 638	8 998 019	X	7 527 794	4 605 688	1 470 226	3	3	4
Establishments specializing 51 percent or more	5 675	99 866	3 348 642	13 206 040	10 891 977	11 598 946	7 674 410	1 607 094	2	3	5
Sewers, water mains, and related facilities											
All establishments specializing	4 397	59 208	2 000 270	8 874 462	6 933 023	7 645 106	4 713 368	1 229 356	4	4	6
Specialization 100 percent	2 027	18 421	616 540	2 633 648	2 633 648	2 283 293	1 501 705	350 355	6	7	14
Specialization 90 to 99 percent ...	220	4 003	153 490	625 149	578 896	543 880	317 116	81 269	12	11	11
Specialization 80 to 89 percent ...	355	3 543	142 139	669 443	543 099	554 412	347 247	115 031	14	14	28
Specialization 70 to 79 percent ...	676	11 216	375 146	1 529 581	1 112 591	1 323 990	830 726	205 590	13	11	14
Specialization 60 to 69 percent ...	682	16 043	522 147	2 544 754	1 591 669	2 188 137	1 278 354	356 617	8	6	9
Specialization 51 to 59 percent ...	437	5 983	190 808	871 888	473 120	751 395	438 220	120 493	9	9	11
Sewers, sewer lines, septic systems, and related facilities											
All establishments specializing	2 544	38 743	1 340 359	5 862 775	4 602 984	4 984 643	3 046 505	878 132	5	5	7
Specialization 100 percent	1 162	11 429	395 154	1 760 074	1 760 074	1 507 628	971 493	252 446	7	9	17
Specialization 90 to 99 percent ...	165	2 938	111 777	459 745	421 427	395 278	220 725	64 467	13	13	14
Specialization 80 to 89 percent ...	138	2 207	97 559	455 130	366 273	361 962	201 636	93 169	18	19	34
Specialization 70 to 79 percent ...	437	7 860	274 026	1 101 984	794 428	956 781	606 446	145 203	16	15	17
Specialization 60 to 69 percent ...	345	10 182	327 368	1 470 400	926 816	1 228 242	723 499	242 158	10	9	12
Specialization 51 to 59 percent ...	297	4 128	134 474	615 442	333 966	534 753	322 706	80 688	12	12	15
Water mains and related facilities											
All establishments specializing	1 853	20 465	659 911	3 011 687	2 330 039	2 660 463	1 666 863	351 224	6	6	10
Specialization 100 percent	865	6 992	221 386	873 574	873 574	775 666	530 212	97 908	12	13	26
Specialization 90 to 99 percent ...	55	1 066	41 712	165 404	157 470	148 602	96 391	16 802	24	22	9
Specialization 80 to 89 percent ...	218	1 335	44 580	214 313	176 826	192 450	145 611	21 862	24	19	24
Specialization 70 to 79 percent ...	239	3 356	101 119	427 597	318 163	367 209	224 280	60 388	18	16	22
Specialization 60 to 69 percent ...	337	5 861	194 778	1 074 354	664 852	959 895	554 854	114 459	13	9	13
Specialization 51 to 59 percent ...	140	1 855	56 334	256 446	139 154	216 642	115 514	39 805	12	13	15
Pipeline construction other than sewer or water lines											
All establishments specializing	1 264	39 732	1 318 820	4 250 644	3 881 253	3 879 895	2 916 924	370 749	3	3	4
Specialization 100 percent	988	27 951	886 047	2 881 228	2 881 228	2 671 049	1 985 239	210 179	4	5	6
Specialization 90 to 99 percent ...	77	2 545	70 850	257 301	240 817	243 169	167 925	14 132	14	14	3
Specialization 80 to 89 percent ...	89	2 660	112 387	332 370	277 040	317 384	255 094	14 985	13	14	1
Specialization 70 to 79 percent ...	*30	1 990	91 514	197 666	143 950	172 409	126 013	25 257	11	9	8
Specialization 60 to 69 percent ...	60	2 083	61 936	244 868	151 810	220 710	154 795	24 158	28	18	31
Specialization 51 to 59 percent ...	19	2 503	96 086	337 212	186 407	255 173	227 858	82 039	3	1	Z

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
234910, WATER, SEWER, & PIPELINE CONSTRUCTION		
Total	22 419 762	2
Heavy construction, total	20 956 432	2
Cable and conduit laying contractor	464 460	9
Excavation work, earthmoving or land clearing contractor, not connected with buildings	799 075	5
Heavy construction contractor	18 558 720	2
Highway and street general contractor	825 230	4
Paving contractor—asphalt or concrete for highways, streets, or airport runways	308 947	10
Special trade contractors, total	570 249	6
Excavation work: earthmoving or land clearing contractor, connected with buildings	570 249	6
Other construction activities, nec	613 182	6
Other business activities secondary to construction activities, total	213 493	10
Other business activities, secondary to construction activities, nec	213 493	10
Kind of business activity, nsk	°66 406	71

Table 10. **Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
234910, WATER, SEWER, & PIPELINE CONSTRUCTION											
Total	8 042	162 566	5 522 281	22 204 058	X	19 126 738	12 280 098	3 077 320	2	2	3
Establishments not specializing	616	18 285	627 351	2 464 241	X	2 109 012	1 379 673	355 229	5	5	9
Establishments specializing 51 percent or more	7 426	144 281	4 894 929	19 739 819	17 861 791	17 017 728	10 900 426	2 722 091	2	2	3
Cable and conduit laying contractor											
All establishments specializing	151	2 487	75 123	295 305	277 935	258 164	190 722	37 141	15	12	12
Specialization 100 percent	115	1 701	52 976	216 925	216 925	194 144	143 904	22 781	18	15	10
Specialization 90 to 99 percent	^{§9}	^{§65}	^{§1} 339	^{§4} 686	^{§4} 451	^{§4} 170	^{§3} 099	^{§515}	60	62	62
Specialization 80 to 89 percent	^{§9}	[§]	[§]	[§]	[§]	[§]	[§]	6 081	[§]	[§]	11
Specialization 70 to 79 percent	[§]	^{§226}	^{§5} 825	^{§15} 645	^{§11} 567	^{§10} 314	^{§5} 369	^{§5} 331	70	54	71
Specialization 60 to 69 percent	5	132	5 242	14 700	9 188	12 267	9 768	2 433	Z	Z	Z
Heavy construction contractor											
All establishments specializing	7 234	140 707	4 782 914	19 345 805	17 485 924	16 674 575	10 653 784	2 671 230	2	2	3
Specialization 100 percent	4 751	84 562	2 883 145	11 707 828	11 707 828	10 278 377	6 567 425	1 429 451	3	3	5
Specialization 90 to 99 percent	685	15 252	541 690	2 140 454	2 016 338	1 827 070	1 265 451	313 385	6	6	4
Specialization 80 to 89 percent	616	10 848	371 687	1 527 554	1 261 941	1 251 926	761 065	275 627	9	8	11
Specialization 70 to 79 percent	433	8 188	285 997	1 150 098	845 973	964 358	572 701	185 740	10	11	18
Specialization 60 to 69 percent	483	12 189	390 190	1 566 317	976 434	1 318 280	800 589	248 037	9	8	11
Specialization 51 to 59 percent	267	9 668	310 206	1 253 553	677 409	1 034 564	686 552	218 990	6	8	9

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
234910, WATER, SEWER, & PIPELINE CONSTRUCTION										
United States	22 204 058	5 668	16 942 683	1 716	2 488 136	2 320	2 773 240	2	2	3
Alabama	396 656	116	297 903	47	78 645	^{\$24}	20 108	15	20	12
Alaska	D	22	62 393	5	D	7	D	D	19	D
Arizona	374 496	97	307 483	13	47 353	27	^{\$19} 660	11	13	Z
Arkansas	82 541	^{\$43}	46 347	^{\$27}	10 379	23	25 816	13	19	3
California	2 277 082	384	1 725 393	38	168 820	264	382 870	5	7	11
Colorado	519 046	152	405 302	19	22 187	^{\$53}	^{\$91} 558	13	17	Z
Connecticut	310 536	85	267 410	14	19 687	8	S	3	6	Z
Delaware	71 114	13	60 088	^{\$27}	S	^{\$9}	^{\$3} 764	8	2	S
District of Columbia	20 311	2	D	19	D	—	—	9	D	D
Florida	1 170 280	205	1 024 772	27	64 472	84	81 037	12	13	2
Georgia	547 284	195	379 559	34	50 470	106	117 256	11	14	6
Hawaii *	D	11	D	1	D	1	D	D	D	D
Idaho	68 180	^{\$17}	39 175	^{\$36}	10 177	^{\$9}	S	29	30	14
Illinois	802 186	208	657 048	52	53 560	133	91 578	10	12	2
Indiana	553 069	184	429 657	56	^{\$110} 015	^{\$18}	13 397	15	16	42
Iowa	256 204	128	191 848	34	38 638	^{\$37}	25 718	20	27	15
Kansas	316 231	45	D	^{\$46}	D	8	D	7	D	D
Kentucky	219 575	104	166 452	52	44 670	47	8 454	12	15	7
Louisiana	710 179	82	573 752	26	64 515	86	71 912	7	8	2
Maine	61 618	18	55 883	9	^{\$5} 735	—	—	18	19	41
Maryland	402 951	100	214 255	54	93 247	22	95 449	8	13	9
Massachusetts	451 814	146	308 227	25	48 737	81	^{\$94} 850	12	17	6
Michigan	898 467	180	733 170	19	63 233	101	^{\$102} 065	12	15	10
Minnesota	568 281	174	452 283	25	67 710	^{\$42}	48 288	12	15	1
Mississippi	210 815	62	163 595	^{\$46}	45 025	4	2 195	17	22	11
Missouri	387 129	145	285 858	26	29 700	92	^{\$71} 572	19	22	34
Montana	107 617	^{\$77}	91 472	18	14 704	5	1 442	23	27	6
Nebraska	101 949	^{\$41}	^{\$47} 566	23	23 629	^{\$41}	S	9	52	30
Nevada	419 707	43	336 303	27	65 672	8	17 733	8	8	26
New Hampshire	^{\$22} 204	^{\$7}	D	^{\$27}	D	1	D	43	D	D
New Jersey	446 791	162	373 253	48	18 156	31	55 382	11	13	13
New Mexico	292 485	39	183 950	^{\$38}	^{\$94} 636	^{\$20}	^{\$13} 900	16	8	48
New York	667 354	227	534 389	92	80 950	^{\$48}	52 016	8	10	23
North Carolina	705 871	183	491 346	85	66 477	158	148 048	11	15	16
North Dakota	52 862	26	32 060	^{\$41}	16 682	3	4 121	19	28	29
Ohio	715 410	222	572 160	61	65 789	^{\$48}	77 460	11	13	4
Oklahoma	267 702	164	178 766	25	39 781	76	49 155	15	20	1
Oregon	428 952	169	318 904	16	23 387	^{\$53}	86 661	11	16	4
Pennsylvania	622 326	193	482 571	73	55 057	79	84 698	12	16	4
Rhode Island	29 414	12	17 894	6	2 026	^{\$8}	^{\$9} 494	19	16	1
South Carolina	238 137	89	172 026	68	39 254	46	^{\$26} 858	13	15	14
South Dakota	65 825	20	34 138	29	27 433	^{\$18}	^{\$4} 254	11	17	11
Tennessee	335 272	105	249 882	^{\$50}	34 140	^{\$62}	51 251	15	20	23
Texas	2 174 314	328	1 566 175	62	210 834	180	397 306	7	10	Z
Utah	136 919	^{\$58}	106 051	12	29 315	4	1 554	21	27	3
Vermont	31 253	S	D	^{\$6}	D	^{\$10}	D	39	D	D
Virginia	969 862	207	813 211	56	125 579	33	31 071	7	8	9
Washington	722 326	206	625 807	13	22 257	82	^{\$74} 262	8	9	8
West Virginia	175 092	^{\$56}	130 873	19	18 863	^{\$26}	^{\$25} 356	12	18	2
Wisconsin	409 760	92	379 320	^{\$21}	23 370	15	7 070	15	16	16
Wyoming	82 059	17	53 602	24	23 488	^{\$8}	S	12	16	6

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

NUMBER OF CONSTRUCTION WORKERS: QUARTERLY PAY PERIOD

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS NOT REPORTING INVENTORIES

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH NO INVENTORIES

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY PERIOD

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

NUMBER OF PROPRIETORS AND WORKING PARTNERS

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **Other building construction.** Includes all types of residential and nonresidential building construction not shown elsewhere.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military nonbuilding such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Power and Communication Transmission Line Construction

1997

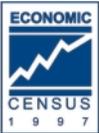
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1997 Economic Census

Construction

Industry Series



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Power and Communication Transmission Line Construction

1997

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1997 Economic Census

Construction

Industry Series



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division	301-457-4673
Service Sector Statistics Division	301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
234920	Power & communication transmission line construction	3 300	74 050	2 387 432	7 849 436	6 741 945	5 201 423	1 610 583	428 260
162320	Water, sewer, pipeline, & communications & power line constr (pt)	3 236	73 584	2 366 099	7 730 180	6 677 798	5 155 237	1 592 319	426 635
874134	Management services (pt)	64	466	21 333	119 257	64 147	46 186	18 264	1 624

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers	
234920. POWER & COMMUNICATION TRANSMISSION LINE CONSTRUCTION										
United States	3 300	74 050	60 880	56 373	60 486	63 749	62 911	2 387 432	1 748 715	2
Alabama	63	1 524	1 296	1 406	1 395	1 255	1 126	40 082	28 651	10
Alaska	*10	S	47	S	52	71	S	1 853	1 396	S
Arizona	32	1 932	1 600	1 626	1 580	1 617	1 578	53 358	41 986	8
Arkansas	135	1 636	1 337	1 272	1 414	1 431	1 229	35 897	25 932	16
California	176	5 198	4 291	4 028	4 273	4 432	4 431	178 031	137 585	8
Colorado	74	3 537	2 912	2 640	2 820	3 143	3 046	145 788	106 511	6
Connecticut	*16	62	45	32	49	48	51	2 032	1 219	17
Delaware	14	104	82	75	74	90	88	2 228	1 475	13
District of Columbia	2	D	D	D	D	D	D	D	D	D
Florida	237	5 550	4 515	4 445	4 347	4 661	4 608	140 654	105 979	12
Georgia	98	2 119	1 696	1 574	1 711	1 742	1 756	66 256	50 208	8
Hawaii	6	62	49	40	55	53	46	1 829	1 383	22
Idaho	*36	535	462	384	422	453	590	20 168	16 638	23
Illinois	107	1 421	1 155	1 018	1 224	1 205	1 173	65 450	48 796	9
Indiana	170	2 159	1 868	1 592	1 928	1 857	1 857	59 114	49 072	20
Iowa	*30	140	117	95	117	133	122	6 218	*4 820	15
Kansas	126	1 408	1 109	948	1 082	1 198	1 207	41 262	28 449	29
Kentucky	*40	620	500	*527	481	544	447	15 835	10 731	34
Louisiana	49	840	641	655	643	640	640	23 741	14 774	14
Maine	25	179	138	135	126	150	139	6 397	4 304	24
Maryland	*71	1 559	1 281	1 271	1 254	1 299	1 299	43 524	30 758	17
Massachusetts	*36	307	268	223	265	289	296	12 215	10 289	24
Michigan	59	1 686	1 415	1 129	1 438	1 609	1 486	67 901	49 813	11
Minnesota	64	D	D	403	680	D	D	43 467	32 962	D
Mississippi	30	1 411	1 140	1 019	1 075	1 211	1 255	42 528	33 291	9
Missouri	99	2 144	1 819	1 867	1 822	1 828	1 758	57 268	30 435	24
Montana	*7	343	315	213	298	378	370	13 322	12 117	7
Nebraska	*28	1 226	407	393	413	415	407	82 657	D	7
Nevada	*20	514	437	378	445	443	480	15 842	11 519	35
New Hampshire	26	651	543	488	483	603	597	26 222	21 281	29
New Jersey	*47	948	787	808	749	800	789	33 080	26 584	15
New Mexico	S	D	D	D	D	S	S	D	D	D
New York	75	995	849	742	871	879	904	39 477	30 309	8
North Carolina	151	4 653	3 903	3 762	3 788	3 930	4 130	124 360	98 239	11
North Dakota	7	*155	*126	*78	*114	*173	*137	*4 538	*3 532	66
Ohio	109	1 842	1 507	1 605	1 486	1 508	1 428	53 694	42 124	20
Oklahoma	31	214	185	164	185	221	169	3 702	2 678	28
Oregon	*31	1 465	1 212	1 126	1 278	1 259	1 183	70 002	52 498	12
Pennsylvania	89	6 681	5 585	4 937	5 605	5 767	6 030	214 226	162 956	3
Rhode Island	7	141	S	S	110	117	105	7 685	4 152	14
South Carolina	54	1 181	1 005	946	987	994	1 093	35 490	27 100	17
South Dakota	*17	*101	65	81	60	*58	61	*3 142	*2 049	45
Tennessee	102	1 427	1 220	1 188	1 243	1 234	1 216	37 942	30 852	11
Texas	366	5 706	4 821	4 510	4 756	5 076	4 942	166 637	122 953	12
Utah	21	752	611	528	573	635	707	24 685	17 968	16
Vermont	*12	*74	*70	*74	*66	*74	*66	*1 880	*1 790	64
Virginia	69	3 246	2 837	2 807	2 889	2 831	2 819	90 535	73 669	7
Washington	91	1 786	1 470	1 287	1 476	1 539	1 578	63 605	48 684	9
West Virginia	*27	*580	*485	*553	*513	*408	*137	*11 172	*11 555	53
Wisconsin	74	1 595	1 331	888	1 444	1 515	1 477	72 583	54 282	21
Wyoming	*30	308	207	191	201	197	241	9 518	6 027	26

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
234920, POWER & COMMUNICATION TRANSMISSION LINE CONSTRUCTION										
United States	7 849 436	6 741 945	5 201 423	1 610 583	1 107 492	267 361	428 260	2 993 666	2	3
Alabama	140 889	114 659	89 028	D	[§] 26 229	5 339	4 217	[§] 44 000	16	36
Alaska	8 876	8 066	6 421	S	810	S	313	2 628	24	24
Arizona	167 010	142 851	117 010	D	24 159	7 941	8 495	58 461	7	7
Arkansas	122 241	112 227	88 505	23 721	[§] 10 014	2 938	3 931	52 856	12	28
California	560 771	480 598	370 632	113 186	80 173	22 828	23 966	159 933	7	12
Colorado	440 846	386 598	294 059	92 539	54 248	15 221	16 031	133 159	5	2
Connecticut	11 324	7 626	6 159	1 468	[§] 3 698	161	766	1 571	17	17
Delaware	7 686	7 117	5 523	1 594	569	307	487	2 654	9	6
District of Columbia	D	D	D	D	D	D	D	D	D	D
Florida	468 672	399 767	312 155	87 849	68 905	11 691	27 800	172 949	8	20
Georgia	251 561	180 949	137 836	47 558	70 611	6 867	8 999	57 252	6	12
Hawaii *	6 324	D	3 119	D	D	125	93	1 411	D	20
Idaho	70 228	64 210	53 281	10 929	6 018	1 741	3 246	30 180	25	30
Illinois	209 839	D	147 689	35 513	D	S	4 162	46 960	D	9
Indiana	180 905	159 360	138 777	21 330	21 546	5 746	17 195	67 420	12	13
Iowa	17 752	D	10 551	D	D	241	2 777	12 605	D	23
Kansas	137 871	120 686	103 827	16 859	[§] 17 184	[§] 2 220	[§] 7 783	71 237	31	41
Kentucky	59 577	49 234	30 628	[§] 18 605	[§] 10 343	S	2 129	11 776	33	1
Louisiana	D	D	62 003	27 563	D	[§] 1 373	4 410	39 101	D	26
Maine	D	D	19 646	D	6 884	1 160	[§] 837	18 302	D	59
Maryland	118 718	100 078	83 668	18 020	18 641	3 880	3 445	51 618	17	14
Massachusetts	43 559	38 622	26 595	S	4 937	S	[§] 3 375	[§] 17 536	33	61
Michigan	205 705	193 586	157 993	39 727	12 118	11 094	7 969	68 022	8	21
Minnesota	171 811	140 543	116 309	24 235	31 268	8 429	D	S	15	D
Mississippi	121 428	107 026	98 961	19 347	14 403	4 518	19 373	92 494	8	4
Missouri	246 021	192 156	151 914	40 655	53 865	5 994	13 450	100 226	27	24
Montana	49 195	D	30 787	D	D	3 529	1 095	11 290	D	22
Nebraska	D	D	204 485	D	D	D	49 067	D	D	2
Nevada	40 602	38 956	30 115	8 924	1 646	819	[§] 3 674	15 808	21	55
New Hampshire	79 784	72 752	64 182	D	7 033	[§] 4 918	5 967	27 232	36	17
New Jersey	112 811	104 478	79 789	24 689	8 334	3 401	[§] 6 656	33 850	16	53
New Mexico	D	D	D	S	—	—	—	—	D	—
New York	113 595	99 394	78 331	D	14 201	4 520	5 614	39 440	5	21
North Carolina	350 378	292 362	247 663	49 118	58 016	14 721	15 458	127 147	8	3
North Dakota	[§] 31 752	[§] 20 778	[§] 16 298	[§] 4 480	S	[§] 377	[§] 1 112	[§] 9 341	70	73
Ohio	163 897	148 347	117 042	31 317	15 550	S	9 430	66 576	23	37
Oklahoma	[§] 24 234	16 941	11 323	[§] 5 653	S	S	[§] 2 510	[§] 8 244	34	70
Oregon	206 721	177 774	138 646	39 129	28 947	8 399	10 041	57 502	9	15
Pennsylvania	721 790	604 158	466 639	155 829	117 632	22 069	36 149	240 947	3	1
Rhode Island	28 081	22 535	18 680	3 855	5 546	S	640	D	9	Z
South Carolina	87 719	79 327	65 779	13 548	8 392	2 091	3 868	30 096	15	16
South Dakota	[§] 17 333	[§] 14 642	[§] 9 622	[§] 5 020	2 691	164	[§] 581	[§] 9 078	51	57
Tennessee	132 538	113 101	90 420	22 681	19 436	4 492	9 903	65 409	12	14
Texas	588 911	509 374	340 366	D	79 536	20 409	29 663	152 567	9	16
Utah	81 512	70 948	56 288	14 660	10 563	2 079	2 462	30 684	21	18
Vermont	[§] 5 844	[§] 5 225	[§] 4 077	S	S	[§] 66	S	S	72	S
Virginia	250 773	235 659	191 477	53 506	15 114	7 279	12 492	94 986	6	15
Washington	174 752	157 494	80 027	D	17 257	5 790	9 375	68 478	7	8
West Virginia	[§] 32 455	[§] 31 199	[§] 26 245	[§] 4 954	1 256	[§] 722	[§] 1 169	[§] 14 050	55	52
Wisconsin	216 012	189 146	163 099	26 113	26 866	7 945	13 919	107 013	10	9
Wyoming	46 521	33 008	25 824	7 184	[§] 13 513	[§] 2 451	[§] 3 361	[§] 24 360	32	60

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
234920, POWER & COMMUNICATION TRANSMISSION LINE CONSTRUCTION			234920, POWER & COMMUNICATION TRANSMISSION LINE CONSTRUCTION—Con.		
Number of establishments in business during year	3 300	5	Selected costs	2 718 075	2
Number of proprietors and working partners	941	12	Cost of materials, components, and supplies	1 412 509	2
Total number of employees	74 050	2	Cost of construction work subcontracted out to others	1 107 492	3
Number of construction workers in March	56 373	2	Cost of selected power, fuels, and lubricants	198 074	5
Number of construction workers in May	60 486	2	Cost of electricity	19 685	23
Number of construction workers in August	63 749	2	Cost of natural gas and manufactured gas	2 444	7
Number of construction workers in November	62 911	2	Cost of gasoline and diesel fuel	163 887	4
Average number of construction workers	60 880	2	Cost of on-highway use of gasoline and diesel fuel	110 711	3
Number of other employees in March	12 987	3	Cost of off-highway use of gasoline and diesel fuel	53 176	8
Number of other employees in May	12 919	3	Cost of all other fuels and lubricants	12 058	2
Number of other employees in August	13 319	3	Rental cost for machinery, equipment, and buildings	267 961	3
Number of other employees in November	13 455	3	Rental cost for machinery and equipment	225 376	3
Average number of other employees	13 170	3	Rental cost for buildings	41 985	4
Payroll, all employees	2 387 432	2	Selected purchased services	305 175	3
Payroll, construction workers	1 748 715	2	Purchased communication services	62 795	5
Payroll, other employees	638 717	3	Cost of repairs to buildings and other structures	16 034	7
First-quarter payroll, all employees	501 504	2	Cost of repairs to machinery and equipment	226 346	3
Fringe benefits, all employees	605 683	2	Value of construction work	7 849 436	2
Legally required expenditures	374 145	2	Value of construction work on government owned projects ..	1 407 616	2
Voluntary expenditures	231 538	2	Value of construction work on federally owned projects ..	233 595	6
Value of business done	7 919 498	2	Value of construction work on state and locally owned projects	1 174 021	2
Value of construction work	7 849 436	2	Value of construction work on privately owned projects	6 441 820	2
Value of construction work subcontracted in from others ..	1 312 622	4	Beginning-of-year gross book value of depreciable assets	2 711 293	2
Other business receipts	70 062	10	Capital expenditures, other than land	428 260	3
Net value of construction	6 741 945	2	Retirements and disposition of depreciable assets	145 887	3
Value added	5 201 423	2	End-of-year gross book value of depreciable assets	2 993 666	2
			Depreciation charges during year	379 225	3
			Number of establishments with inventories	750	11
			Value of construction work for establishments with inventories ..	2 971 549	2
			End of 1997, inventories of materials and supplies	73 206	3
			End of 1996, inventories of materials and supplies	55 793	5
			Number of establishments with no inventories	1 319	8
			Value of construction work for establishments with no inventories	2 936 234	4
			Number of establishments not reporting inventories	1 230	8
			Value of construction work for establishments not reporting inventories	1 941 654	5

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
234920, POWER & COMMUNICATION TRANSMISSION LINE CONSTRUCTION											
Total	3 300	74 050	2 387 432	7 919 498	7 849 436	6 741 945	5 201 423	1 610 583	1 107 492	2	2
Establishments with 1 to 4 employees	1 432	2 894	64 936	278 671	278 671	245 852	180 861	64 992	32 819	10	10
Establishments with 5 to 9 employees	735	4 748	128 032	484 603	484 584	400 505	301 975	98 549	84 079	12	11
Establishments with 10 to 19 employees	397	5 360	155 463	564 341	559 744	481 284	364 883	120 999	78 460	12	12
Establishments with 20 to 49 employees	427	12 787	377 688	1 252 263	1 240 826	1 073 592	881 030	203 999	167 234	9	9
Establishments with 50 to 99 employees	153	10 799	356 361	1 170 630	1 146 527	968 173	757 438	234 838	178 355	9	7
Establishments with 100 to 249 employees	110	15 745	510 243	1 689 718	1 675 973	1 410 443	1 119 433	304 755	265 530	3	1
Establishments with 250 to 499 employees	34	11 894	400 076	1 220 060	D	1 045 455	823 185	D	D	Z	Z
Establishments with 500 to 999 employees	9	D	D	D	D	D	D	D	D	D	D
Establishments with 1,000 employees or more	2	D	D	D	D	D	D	D	D	D	D

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
234920, POWER & COMMUNICATION TRANSMISSION LINE CONSTRUCTION											
Total	3 300	74 050	2 387 432	7 919 498	7 849 436	6 741 945	5 201 423	1 610 583	1 107 492	2	2
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	S	124	^s 1 912	S	S	S	S	S	^s 477	39	S
Establishments with value of business done \$50,000 to \$99,999	S	346	S	S	S	S	S	S	S	27	S
Establishments with value of business done \$100,000 to \$249,999	672	1 535	30 605	104 532	104 532	95 636	73 443	22 193	8 896	15	13
Establishments with value of business done \$250,000 to \$499,999	625	2 613	62 596	213 054	213 054	197 805	155 158	42 646	15 249	15	14
Establishments with value of business done \$500,000 to \$999,999	491	4 221	105 805	336 007	335 945	296 269	238 050	58 282	39 676	15	14
Establishments with value of business done \$1,000,000 to \$2,499,999	577	10 520	292 025	903 144	899 574	796 597	607 291	192 876	102 977	10	9
Establishments with value of business done \$2,500,000 to \$4,999,999	235	8 769	251 177	826 742	816 101	720 230	590 560	140 310	95 871	14	12
Establishments with value of business done \$5,000,000 to \$9,999,999	124	9 217	271 625	904 238	898 847	785 880	632 537	158 734	112 968	4	6
Establishments with value of business done \$10,000,000 or more	171	36 694	1 367 089	4 605 629	4 555 230	3 825 834	2 886 413	989 820	729 396	Z	1

Table 7. **Value of Construction Work for Establishments With Payroll by Type of Construction: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
234920, POWER & COMMUNICATION TRANSMISSION LINE CONSTRUCTION								
Total	7 849 436	5 028 963	1 351 228	1 402 850	2	2	4	3
Building construction, total	115 479	87 845	22 596	5 038	6	1	27	15
Nonbuilding construction, total	7 667 563	4 941 118	1 328 632	1 397 812	2	2	4	3
Sewers, water mains, and related facilities	127 126	102 423	11 204	13 498	6	5	9	13
Pipeline construction other than sewer or water lines	92 502	59 080	15 206	18 216	14	16	10	9
Power and communication transmission lines, cables, towers, and related facilities	7 251 758	4 644 712	1 278 740	1 328 306	2	2	4	3
Other nonbuilding construction, nec	196 177	134 903	23 482	37 792	11	11	16	10
Construction work, nsk	66 395	X	X	X	Z	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				A	B						
234920, POWER & COMMUNICATION TRANSMISSION LINE CONSTRUCTION											
Total	3 300	74 050	2 387 432	7 849 436	X	6 741 945	5 201 423	1 107 492	2	2	3
Establishments not specializing ..	29	1 463	56 946	183 908	X	144 149	106 031	39 759	13	13	1
Establishments specializing 51 percent or more	3 271	72 587	2 330 486	7 665 528	7 249 252	6 597 796	5 095 393	1 067 733	2	2	3
Power and communication transmission lines, cables, towers, and related facilities											
All establishments specializing	3 256	71 938	2 310 668	7 598 682	7 182 406	6 538 874	5 049 925	1 059 809	2	2	3
Specialization 100 percent	2 692	55 065	1 731 159	5 714 825	5 714 825	4 909 458	3 812 993	805 367	3	2	3
Specialization 90 to 99 percent ...	302	5 769	196 746	596 189	562 805	542 402	452 196	53 787	8	7	9
Specialization 80 to 89 percent ...	87	3 012	93 222	315 103	257 277	298 298	201 078	16 804	1	1	6
Specialization 70 to 79 percent ...	42	3 937	146 895	426 416	330 441	376 213	271 215	50 203	6	3	1
Specialization 60 to 69 percent ...	98	2 276	73 514	271 981	171 327	201 906	146 925	70 075	23	14	21
Specialization 51 to 59 percent ...	36	1 879	69 132	274 169	145 732	210 596	165 518	63 573	6	9	14

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
234920, POWER & COMMUNICATION TRANSMISSION LINE CONSTRUCTION		
Total	7 919 498	2
Heavy construction, total	7 435 108	2
Cable and conduit laying contractor	3 889 330	3
Construction management—heavy construction	124 427	2
Heavy construction contractor	3 421 351	2
Other construction activities, nec	348 908	6
Other business activities secondary to construction activities, total	61 382	11
Other business activities, secondary to construction activities, nec	61 382	11
Kind of business activity, nsk	74 100	Z

Table 10. **Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
234920, POWER & COMMUNICATION TRANSMISSION LINE CONSTRUCTION											
Total	3 300	74 050	2 387 432	7 849 436	X	6 741 945	5 201 423	1 107 492	2	2	3
Establishments not specializing	84	2 725	93 120	322 575	X	247 980	198 091	74 595	16	12	12
Establishments specializing 51 percent or more	3 216	71 325	2 294 311	7 526 861	7 086 903	6 493 965	5 003 332	1 032 897	2	2	3
Cable and conduit laying contractor											
All establishments specializing	2 064	38 502	1 153 902	3 972 863	3 723 830	3 378 418	2 599 609	594 445	4	3	3
Specialization 100 percent	1 648	27 840	826 084	2 879 497	2 879 497	2 436 813	1 863 056	442 684	5	4	4
Specialization 90 to 99 percent	200	3 209	96 439	340 107	321 156	290 429	240 260	49 678	15	12	12
Specialization 80 to 89 percent	⁹¹	2 014	55 979	204 220	164 520	171 547	127 874	32 673	10	11	11
Specialization 70 to 79 percent	19	2 110	66 552	200 801	152 047	181 928	147 978	18 873	3	3	2
Specialization 60 to 69 percent	67	2 250	72 572	230 187	143 776	197 839	138 461	32 347	27	17	5
Specialization 51 to 59 percent	38	1 079	36 277	118 051	62 834	99 862	81 980	S	6	3	S
Construction management—heavy construction											
All establishments specializing	63	455	20 933	116 242	109 624	62 364	44 623	53 878	5	3	3
Specialization 100 percent	17	331	17 887	95 165	95 165	52 625	37 945	42 540	Z	Z	Z
Specialization 80 to 89 percent	³⁹	S	916	D	D	D	D	D	D	D	D
Specialization 70 to 79 percent	3	D	D	5 881	4 411	2 017	1 831	³ 864	D	38	40
Specialization 60 to 69 percent	3	35	1 192	9 450	5 670	4 104	S	5 346	Z	Z	Z
Specialization 51 to 59 percent	1	D	D	D	D	D	D	D	D	D	D
Heavy construction contractor											
All establishments specializing	1 076	31 725	1 099 873	3 371 362	3 187 054	2 994 663	2 313 907	376 698	3	3	4
Specialization 100 percent	898	20 275	680 457	2 160 289	2 160 289	1 890 507	1 432 104	269 783	4	3	3
Specialization 90 to 99 percent	62	6 057	241 401	628 645	591 963	580 186	481 372	48 459	3	6	6
Specialization 80 to 89 percent	⁵³	2 238	71 070	190 202	160 968	174 900	156 173	15 302	10	6	2
Specialization 70 to 79 percent	32	2 059	69 163	266 746	199 181	235 541	151 796	³¹ 205	7	8	46
Specialization 60 to 69 percent	15	577	19 046	65 608	41 555	58 509	47 969	7 099	4	5	16
Specialization 51 to 59 percent	15	518	18 738	59 872	33 098	55 021	44 493	4 850	4	3	2

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Value of construction work done in this state	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—		
		Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
		A	B	D	E	F	G			
234920, POWER & COMMUNICATION TRANSMISSION LINE CONSTRUCTION										
United States	7 849 436	2 181	4 177 315	1 476	1 826 505	1 032	1 845 616	2	3	2
Alabama	149 501	^{s42}	50 557	32	44 347	20	54 597	13	38	Z
Alaska	38 460	1	D	^{s24}	29 585	^{s9}	D	27	D	34
Arizona	192 772	23	135 848	^{s32}	34 919	9	22 005	6	8	6
Arkansas	136 689	97	91 953	31	41 130	S	3 605	11	17	7
California	571 701	77	331 443	17	73 242	91	167 016	6	7	Z
Colorado	154 149	^{s24}	81 981	19	29 762	50	^{s42} 406	13	9	12
Connecticut	67 750	^{s13}	8 349	17	58 816	3	586	17	26	20
Delaware	14 022	^{s6}	D	11	D	4	D	Z	D	D
District of Columbia	9 899	2	D	8	D	—	—	2	D	D
Florida	476 407	157	318 980	41	74 145	61	83 282	8	11	12
Georgia	241 978	66	60 821	72	107 975	32	73 182	5	13	2
Hawaii *	25 542	4	D	6	D	^{s2}	D	3	D	D
Idaho	63 558	^{s30}	40 917	9	7 217	^{s6}	S	25	21	12
Illinois	238 865	79	116 862	^{s72}	38 492	29	83 511	7	9	9
Indiana	153 860	147	106 170	24	26 341	22	21 349	12	17	12
Iowa	34 290	^{s28}	17 101	^{s44}	D	2	D	13	14	D
Kansas	144 821	108	113 756	^{s40}	28 257	18	2 808	26	33	12
Kentucky	110 087	^{s33}	^{s41} 430	14	54 039	7	14 617	19	50	Z
Louisiana	131 191	38	D	38	D	11	D	10	D	D
Maine	D	^{s15}	D	12	8 684	^{s9}	D	D	D	3
Maryland	169 714	^{s47}	75 194	26	74 294	S	^{s20} 226	13	21	5
Massachusetts	91 398	S	17 437	35	52 729	^{s13}	^{s21} 232	15	37	9
Michigan	228 081	49	140 911	^{s44}	40 603	10	46 567	7	11	5
Minnesota	172 569	17	92 970	^{s35}	20 153	^{s47}	59 446	15	21	10
Mississippi	82 320	^{s17}	32 576	26	38 379	^{s13}	^{s11} 365	18	10	33
Missouri	258 370	82	169 009	50	45 070	^{s14}	^{s44} 291	20	29	8
Montana	32 248	^{s7}	30 358	4	1 890	—	—	14	15	Z
Nebraska	D	^{s22}	D	21	D	5	D	D	D	D
Nevada	115 585	^{s19}	D	19	76 663	1	D	7	D	Z
New Hampshire	36 580	^{s15}	23 640	^{s14}	8 955	^{s11}	3 985	19	31	3
New Jersey	164 294	^{s38}	94 829	26	54 675	9	14 790	12	20	1
New Mexico	18 590	S	D	9	D	—	—	21	D	D
New York	144 932	^{s57}	81 419	37	42 912	18	20 600	3	6	2
North Carolina	264 846	94	158 955	70	54 010	^{s55}	51 881	11	18	6
North Dakota	D	^{s5}	D	5	D	2	D	D	D	D
Ohio	198 045	85	78 697	67	41 975	24	^{s77} 374	19	21	6
Oklahoma	41 720	^{s22}	^{s16} 477	^{s55}	17 825	^{s8}	7 419	26	64	10
Oregon	230 106	^{s28}	D	16	D	3	D	7	D	D
Pennsylvania	535 322	37	161 969	30	25 615	48	347 739	4	3	16
Rhode Island	26 447	5	D	9	D	2	D	20	D	D
South Carolina	138 889	^{s42}	50 684	74	74 033	12	14 171	11	22	14
South Dakota	^{s15} 076	S	S	^{s10}	D	1	D	55	S	D
Tennessee	149 718	66	73 443	27	46 900	11	29 375	6	11	6
Texas	595 464	128	251 054	58	56 231	237	288 180	8	13	14
Utah	112 995	13	70 892	8	39 654	8	2 449	14	22	Z
Vermont	^{s5} 142	^{s12}	^{s3} 200	^{s13}	1 943	—	—	45	70	30
Virginia	265 365	^{s40}	70 484	45	89 825	29	105 055	5	6	1
Washington	136 064	87	82 790	18	52 329	4	944	8	13	Z
West Virginia	49 668	^{s23}	^{s24} 198	15	D	4	D	36	73	D
Wisconsin	156 097	70	148 194	^{s34}	6 326	3	1 577	13	14	1
Wyoming	34 631	S	^{s15} 657	17	14 146	6	4 828	29	64	2

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **Other building construction.** Includes all types of residential and nonresidential building construction not shown elsewhere.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military nonbuilding such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Industrial Nonbuilding Structure Construction

1997

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1997 Economic Census

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Industry Series



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1997

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Industry Series



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Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division	301-457-4673
Service Sector Statistics Division	301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
234930	Industrial nonbuilding structure construction	531	98 555	3 722 363	9 255 216	8 129 656	6 288 698	1 894 705	135 395
162910	Heavy construction, n.e.c. (pt)	484	97 863	3 687 795	9 058 877	7 974 710	6 163 487	1 863 475	133 317
874135	Management services (pt)	^s 47	672	34 568	196 339	154 946	125 211	31 230	2 079

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers	
234930, INDUSTRIAL NONBUILDING STRUCTURE CONSTRUCTION										
United States	531	98 555	79 473	77 706	81 784	76 152	82 252	3 722 363	2 734 020	2
Alabama	10	800	746	646	917	651	769	24 023	21 068	Z
Alaska	^s 6	261	216	D	180	D	D	10 929	7 915	16
Arizona	3	D	D	D	D	D	D	D	D	D
Arkansas	4	1 016	815	703	849	777	930	34 140	23 623	Z
California	30	3 796	3 023	2 779	2 969	2 897	3 449	142 273	103 047	7
Colorado	^s 25	770	582	529	578	737	484	28 625	20 616	12
Connecticut	3	D	D	D	D	D	D	D	D	D
Delaware	1	D	D	D	D	D	D	D	D	D
District of Columbia	—	—	—	—	—	—	—	—	—	—
Florida	^s 25	1 234	943	800	S	S	S	57 268	42 706	6
Georgia	5	795	511	552	711	383	397	28 899	13 969	Z
Hawaii	2	D	D	D	D	D	D	D	D	D
Idaho	8	D	D	D	D	D	D	D	D	D
Illinois	^s 31	665	578	475	572	494	S	31 667	27 532	5
Indiana	9	2 572	2 335	2 863	2 735	2 220	1 520	101 723	89 188	Z
Iowa	—	—	—	—	—	—	—	—	—	—
Kansas	7	392	352	359	363	365	321	14 774	12 603	5
Kentucky	9	1 126	1 029	1 202	942	758	1 213	53 732	50 285	5
Louisiana	23	15 518	13 726	14 161	14 951	12 497	13 295	543 704	471 832	Z
Maine	3	D	D	D	D	D	D	D	D	D
Maryland	6	61	18	17	16	19	21	3 245	432	Z
Massachusetts	^s 5	^s 49	^s 32	13	^s 29	^s 41	^s 46	^s 2 033	S	57
Michigan	^s 27	404	365	216	312	365	568	18 687	16 037	21
Minnesota	5	D	D	D	D	D	D	37 113	25 982	D
Mississippi	1	D	D	D	D	D	D	D	D	D
Missouri	2	D	D	D	D	D	D	D	D	D
Montana	—	—	—	—	—	—	—	—	—	—
Nebraska	1	D	D	D	D	D	D	D	D	D
Nevada	^s 5	D	D	D	D	D	D	D	D	D
New Hampshire	^s 2	D	D	D	D	D	D	D	D	D
New Jersey	12	2 439	1 936	1 921	2 116	1 843	1 863	118 186	79 378	Z
New Mexico	^s 7	D	D	D	D	127	223	D	D	D
New York	9	116	70	^s 21	40	126	91	6 446	3 216	16
North Carolina	1	D	D	D	D	D	D	D	D	D
North Dakota	2	D	D	D	D	D	D	D	D	D
Ohio	26	2 811	2 413	1 902	2 810	2 035	2 904	136 151	113 378	2
Oklahoma	19	930	822	342	404	901	1 640	23 462	17 939	2
Oregon	2	D	D	D	D	D	D	D	D	D
Pennsylvania	25	2 230	1 963	1 916	2 500	1 628	1 809	84 682	68 654	21
Rhode Island	—	—	—	—	—	—	—	—	—	—
South Carolina	3	612	454	452	536	361	467	35 766	D	Z
South Dakota	1	D	D	D	D	D	D	D	D	D
Tennessee	4	272	212	220	192	221	214	10 656	7 519	Z
Texas	110	44 312	36 584	36 624	35 089	35 365	39 257	1 679 036	1 225 936	4
Utah	11	^s 586	^s 530	^s 514	^s 621	^s 533	^s 452	20 933	17 980	42
Vermont	—	—	—	—	—	—	—	—	—	—
Virginia	6	203	129	151	147	78	139	S	2 842	Z
Washington	^s 20	1 210	906	793	978	1 053	802	51 690	32 644	2
West Virginia	11	D	940	829	966	833	1 131	40 242	29 025	D
Wisconsin	1	D	D	D	D	D	D	D	D	D
Wyoming	^s 3	D	D	D	D	D	D	D	D	D

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
234930, INDUSTRIAL NONBUILDING STRUCTURE CONSTRUCTION										
United States	9 255 216	8 129 656	6 288 698	1 894 705	1 125 561	234 208	135 395	1 262 284	1	2
Alabama	D	D	39 734	D	3 906	1 587	1 454	10 190	D	Z
Alaska	D	D	25 966	D	D	1 046	1 629	6 250	D	11
Arizona	D	D	D	D	D	D	D	D	D	D
Arkansas	111 398	94 262	83 750	10 512	17 136	D	D	D	Z	D
California	432 859	347 863	271 397	88 990	84 996	12 988	4 484	S	11	26
Colorado	106 836	86 427	59 552	D	20 409	8 398	6 694	43 104	7	6
Connecticut	D	D	D	D	D	D	D	D	D	D
Delaware	D	D	D	D	D	D	D	D	D	D
District of Columbia	-	-	-	-	-	-	-	-	-	-
Florida	D	D	119 817	D	28 216	6 950	6 746	71 271	D	Z
Georgia	146 593	113 991	81 970	D	32 602	2 030	1 977	34 060	Z	Z
Hawaii *	D	D	D	D	D	D	D	D	D	D
Idaho	D	D	D	D	D	D	D	D	D	D
Illinois	D	D	60 320	D	D	S	1 276	10 309	D	32
Indiana	253 817	215 918	175 640	D	37 900	10 233	1 802	21 166	Z	1
Iowa	-	-	-	-	-	-	-	-	-	-
Kansas	D	D	16 405	D	D	1 092	554	12 684	D	11
Kentucky	208 186	203 416	190 287	13 129	4 770	D	^{\$} 395	5 638	3	57
Louisiana	1 039 859	D	782 854	D	D	17 306	13 257	89 379	D	Z
Maine	D	D	D	D	D	D	D	D	D	D
Maryland	13 147	D	5 447	D	D	108	339	4 325	D	Z
Massachusetts	^{\$} 6 761	^{\$} 5 456	^{\$} 4 121	^{\$} 1 335	S	^{\$} 86	^{\$} 671	^{\$} 3 524	67	57
Michigan	D	D	29 230	D	7 857	2 212	607	2 684	D	3
Minnesota	D	D	55 595	D	17 099	2 300	D	28 878	D	D
Mississippi	D	D	D	D	D	D	D	D	D	-
Missouri	D	D	D	D	D	D	D	D	D	D
Montana	-	-	-	-	-	-	-	-	-	-
Nebraska	D	D	D	D	D	D	D	D	D	D
Nevada	D	D	D	D	D	^{\$} 41	D	D	D	D
New Hampshire	D	D	D	-	D	D	-	D	D	-
New Jersey	394 596	D	310 160	D	D	7 136	2 951	21 796	D	1
New Mexico	D	D	D	D	^{\$} 829	^{\$} 84	S	3 694	D	S
New York	D	D	12 315	D	6 452	1 465	^{\$} 326	^{\$} 2 624	D	66
North Carolina	D	D	D	D	D	D	D	D	D	D
North Dakota	D	D	D	D	D	D	D	D	D	D
Ohio	316 672	271 025	218 654	D	45 646	10 742	3 462	34 724	2	9
Oklahoma	91 968	77 872	43 988	D	14 096	1 063	1 122	14 917	1	2
Oregon	D	D	D	D	D	D	D	D	D	D
Pennsylvania	279 195	226 439	130 900	D	52 756	7 012	2 621	24 558	25	28
Rhode Island	-	-	-	-	-	-	-	-	-	-
South Carolina	D	D	D	D	D	D	2 976	17 505	D	Z
South Dakota	D	D	D	D	D	-	-	-	D	-
Tennessee	21 213	20 621	18 761	D	592	736	4 759	D	Z	Z
Texas	3 759 567	3 347 170	2 688 693	D	412 397	89 723	48 823	493 439	2	5
Utah	56 686	51 063	38 628	D	5 623	1 842	1 675	17 539	34	35
Vermont	-	-	-	-	-	-	-	-	-	-
Virginia	S	S	S	D	S	323	S	7 522	S	S
Washington	126 132	85 453	70 523	D	40 679	3 254	5 352	14 839	2	2
West Virginia	141 314	113 746	80 265	33 481	27 568	4 064	2 109	18 911	Z	Z
Wisconsin	D	D	D	D	D	D	D	D	D	-
Wyoming	D	D	D	D	^{\$} 298	D	D	D	D	D

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
234930, INDUSTRIAL NONBUILDING STRUCTURE CONSTRUCTION			234930, INDUSTRIAL NONBUILDING STRUCTURE CONSTRUCTION—Con.		
Number of establishments in business during year	531	8	Selected costs	3 020 266	2
Number of proprietors and working partners	S	S	Cost of materials, components, and supplies	1 822 785	2
Total number of employees	98 555	2	Cost of construction work subcontracted out to others	1 125 561	1
Number of construction workers in March	77 706	1	Cost of selected power, fuels, and lubricants	71 921	4
Number of construction workers in May	81 784	1	Cost of electricity	10 934	3
Number of construction workers in August	76 152	1	Cost of natural gas and manufactured gas	4 348	2
Number of construction workers in November	82 252	4	Cost of gasoline and diesel fuel	51 518	5
Average number of construction workers	79 473	2	Cost of on-highway use of gasoline and diesel fuel	25 445	5
Number of other employees in March	19 501	1	Cost of off-highway use of gasoline and diesel fuel	26 073	5
Number of other employees in May	19 065	1	Cost of all other fuels and lubricants	5 121	5
Number of other employees in August	19 463	1	Rental cost for machinery, equipment, and buildings	234 208	1
Number of other employees in November	18 296	1	Rental cost for machinery and equipment	204 894	1
Average number of other employees	19 081	1	Rental cost for buildings	29 314	2
Payroll, all employees	3 722 363	1	Selected purchased services	100 625	4
Payroll, construction workers	2 734 020	1	Purchased communication services	39 019	2
Payroll, other employees	988 343	1	Cost of repairs to buildings and other structures	5 990	2
First-quarter payroll, all employees	879 116	3	Cost of repairs to machinery and equipment	55 616	6
Fringe benefits, all employees	789 439	1	Value of construction work	9 255 216	1
Legally required expenditures	486 625	1	Value of construction work on government owned projects ..	1 271 844	5
Voluntary expenditures	302 813	Z	Value of construction work on federally owned projects ..	413 168	Z
Value of business done	9 308 964	1	Value of construction work on state and locally owned projects	858 675	7
Value of construction work	9 255 216	1	Value of construction work on privately owned projects	7 983 373	1
Value of construction work subcontracted in from others ..	966 283	5	Beginning-of-year gross book value of depreciable assets	1 232 364	2
Other business receipts	53 747	15	Capital expenditures, other than land	135 395	2
Net value of construction	8 129 656	1	Retirements and disposition of depreciable assets	105 476	1
Value added	6 288 698	1	End-of-year gross book value of depreciable assets	1 262 284	2
			Depreciation charges during year	116 530	3
			Number of establishments with inventories	86	11
			Value of construction work for establishments with inventories ..	3 356 099	2
			End of 1997, inventories of materials and supplies	50 125	1
			End of 1996, inventories of materials and supplies	40 126	1
			Number of establishments with no inventories	258	9
			Value of construction work for establishments with no inventories	4 341 975	2
			Number of establishments not reporting inventories	187	20
			Value of construction work for establishments not reporting inventories	1 557 143	1

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
234930, INDUSTRIAL NONBUILDING STRUCTURE CONSTRUCTION											
Total	531	98 555	3 722 363	9 308 964	9 255 216	8 129 656	6 288 698	1 894 705	1 125 561	2	1
Establishments with 1 to 4 employees	S	S	9 163	S	S	S	S	S	3 135	S	S
Establishments with 5 to 9 employees	30	210	7 878	28 940	28 940	25 068	19 218	5 850	3 872	29	28
Establishments with 10 to 19 employees	65	854	28 149	104 025	102 488	80 080	55 929	25 687	22 408	16	14
Establishments with 20 to 49 employees	82	2 567	90 550	311 855	296 030	238 675	176 662	77 837	57 355	7	4
Establishments with 50 to 99 employees	89	6 460	223 633	727 175	720 225	613 402	409 722	210 630	106 823	26	16
Establishments with 100 to 249 employees	63	9 606	393 352	1 238 008	1 230 901	1 057 755	730 739	334 123	173 146	Z	Z
Establishments with 250 to 499 employees	28	10 108	423 185	1 225 008	D	1 004 747	748 827	D	D	Z	Z
Establishments with 500 to 999 employees	17	D	D	D	D	D	D	D	D	D	D
Establishments with 1,000 employees or more	17	D	D	D	D	D	D	D	D	D	D

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
234930, INDUSTRIAL NONBUILDING STRUCTURE CONSTRUCTION											
Total	531	98 555	3 722 363	9 308 964	9 255 216	8 129 656	6 288 698	1 894 705	1 125 561	2	1
Establishments with value of business done less than \$25,000	—	—	—	—	—	—	—	—	—	—	—
Establishments with value of business done \$25,000 to \$49,999	^s 34	S	^s 281	^s 1 194	^s 1 194	^s 798	605	^s 193	S	S	41
Establishments with value of business done \$50,000 to \$99,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$100,000 to \$249,999	S	S	S	S	S	S	S	S	265	S	S
Establishments with value of business done \$250,000 to \$499,999	S	S	^s 5 383	S	S	S	S	S	279	S	S
Establishments with value of business done \$500,000 to \$999,999	50	604	11 999	36 804	35 896	31 483	26 847	5 543	^s 4 413	27	22
Establishments with value of business done \$1,000,000 to \$2,499,999	74	1 342	40 588	114 428	111 957	101 161	76 251	27 381	10 796	10	11
Establishments with value of business done \$2,500,000 to \$4,999,999	81	4 428	114 524	299 600	286 093	256 482	206 733	63 256	29 611	35	24
Establishments with value of business done \$5,000,000 to \$9,999,999	55	3 582	146 083	407 150	407 150	343 298	237 639	105 659	63 853	16	19
Establishments with value of business done \$10,000,000 or more	137	88 366	3 401 243	8 427 635	8 390 773	7 374 871	5 727 410	1 684 323	1 015 903	Z	Z

Table 7. **Value of Construction Work for Establishments With Payroll by Type of Construction: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
234930, INDUSTRIAL NONBUILDING STRUCTURE CONSTRUCTION								
Total	9 255 216	4 348 734	1 474 090	3 407 906	1	2	1	2
Building construction, total	240 570	120 887	29 968	89 716	2	3	6	Z
Manufacturing and light industrial buildings	87 388	52 328	16 420	18 640	6	7	10	Z
Other building construction	153 182	68 559	13 548	71 076	1	1	2	Z
Nonbuilding construction, total	8 990 161	4 227 848	1 444 123	3 318 191	1	2	1	2
Highways, streets, and related work	442 445	D	D	481	Z	D	D	32
Bridges, tunnels, and elevated highways	99 921	D	D	10 146	1	D	D	2
Power plants	1 732 944	656 999	296 422	779 522	Z	Z	Z	1
Blast furnaces, petroleum refineries, chemical complexes, etc	6 177 793	2 688 384	992 860	2 496 549	2	3	1	2
Sewage and water treatment plants	109 495	60 399	41 463	S	6	9	6	S
Other nonbuilding construction, nec	427 563	371 823	31 879	23 860	4	3	15	12
Construction work, nsk	24 485	X	X	X	Z	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—										
				For all types	For specialized type				B	D	H								
												A	B	C	D	E	F	G	H
234930, INDUSTRIAL NONBUILDING STRUCTURE CONSTRUCTION																			
Total	531	98 555	3 722 363	9 255 216	X	8 129 656	6 288 698	1 125 561	2	1	1								
Establishments not specializing ..	20	10 566	405 682	1 115 488	X	976 828	808 539	138 660	2	2	Z								
Establishments specializing 51 percent or more	512	87 989	3 316 681	8 139 729	7 174 358	7 152 828	5 480 159	986 901	2	1	2								
Power plants																			
All establishments specializing	141	16 844	623 609	1 616 857	1 490 709	1 442 618	1 065 153	174 238	1	Z	1								
Specialization 100 percent	99	12 566	444 697	1 095 143	1 095 143	972 533	667 586	122 611	Z	Z	Z								
Specialization 90 to 99 percent ...	*13	512	22 837	53 785	49 575	42 975	27 603	10 810	16	9	2								
Specialization 80 to 89 percent ...	9	1 368	62 667	216 704	174 135	211 249	193 948	5 456	Z	Z	Z								
Specialization 70 to 79 percent ...	5	1 360	66 357	176 694	128 052	158 064	130 470	18 630	Z	Z	Z								
Specialization 60 to 69 percent ...	4	879	20 924	49 333	30 363	43 624	37 725	5 709	Z	Z	Z								
Specialization 51 to 59 percent ...	11	159	6 127	25 197	13 441	14 174	7 821	11 023	21	21	10								
Blast furnaces, petroleum refineries, chemical complexes, etc																			
All establishments specializing	368	70 967	2 685 825	6 499 398	5 660 175	5 690 504	4 400 881	808 895	2	2	2								
Specialization 100 percent	265	34 342	1 257 810	3 103 223	3 103 223	2 675 664	2 039 057	427 559	5	2	2								
Specialization 90 to 99 percent ...	31	7 789	308 548	802 685	748 946	692 798	503 233	109 888	Z	Z	1								
Specialization 80 to 89 percent ...	33	5 995	252 514	683 762	573 539	577 319	442 182	106 443	8	10	10								
Specialization 70 to 79 percent ...	9	733	19 993	75 497	56 767	64 022	44 014	11 475	7	7	4								
Specialization 60 to 69 percent ...	24	17 748	706 481	1 520 280	1 006 743	1 396 972	1 146 368	123 308	1	3	7								
Specialization 51 to 59 percent ...	7	4 360	140 478	313 951	170 956	283 729	226 027	30 222	Z	Z	Z								

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
234930, INDUSTRIAL NONBUILDING STRUCTURE CONSTRUCTION		
Total	9 308 964	1
Building, developing, and general contracting, total	79 617	Z
Building construction on land owned by others—general contractor or design-builder	79 617	Z
Heavy construction, total	9 005 425	1
Construction management—heavy construction	648 235	1
Excavation work, earthmoving or land clearing contractor, not connected with buildings	89 549	3
Heavy construction contractor	7 859 364	1
Highway and street general contractor	408 276	Z
Other construction activities, nec	146 796	4
Other business activities secondary to construction activities, total	52 110	16
Engineering services, secondary to construction activities	24 102	3
Other business activities, secondary to construction activities, nec	S	S
Kind of business activity, nsk	25 017	Z

Table 10. Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
234930, INDUSTRIAL NONBUILDING STRUCTURE CONSTRUCTION											
Total	531	98 555	3 722 363	9 255 216	X	8 129 656	6 288 698	1 125 561	2	1	1
Establishments not specializing	[§] 14 S	S	S	S	X	S	S	3 857	S	S	7
Establishments specializing 51 percent or more	517	97 953	3 705 215	9 210 543	8 237 242	8 088 839	6 247 958	1 121 704	2	1	1
Construction management—heavy construction											
All establishments specializing	[§] 48	1 079	62 952	409 247	408 020	346 563	260 383	62 684	6	1	4
Specialization 100 percent	[§] 40	869	56 137	355 148	355 148	313 438	243 548	41 710	2	Z	1
Specialization 90 to 99 percent	3	S	S	50 492	49 987	D	S	D	S	Z	D
Specialization 80 to 89 percent	S	S	S	S	S	D	S	D	S	S	D
Heavy construction contractor											
All establishments specializing	466	96 697	3 635 016	8 777 823	7 805 748	7 722 571	5 973 450	1 055 252	2	1	1
Specialization 100 percent	346	48 438	1 837 729	4 646 703	4 646 703	4 010 443	2 956 000	636 259	3	2	2
Specialization 90 to 99 percent	54	15 083	538 330	1 293 657	1 220 071	1 143 731	899 469	149 925	2	4	6
Specialization 80 to 89 percent	31	2 790	115 209	371 229	302 784	294 345	226 475	76 884	2	2	1
Specialization 70 to 79 percent	11	15 559	D	1 208 064	880 811	1 088 746	829 455	119 318	Z	Z	Z
Specialization 60 to 69 percent	11	11 216	405 046	1 082 880	664 141	1 014 560	899 526	68 320	Z	Z	Z
Specialization 51 to 59 percent	13	3 611	D	175 290	91 239	170 746	162 525	4 545	2	4	11

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
234930, INDUSTRIAL NONBUILDING STRUCTURE CONSTRUCTION										
United States	9 255 216	341	5 857 766	703	2 237 633	168	1 159 818	1	2	1
Alabama	D	9	D	21	D	1	D	D	D	D
Alaska	D	*6	D	4	8 183	—	—	D	D	Z
Arizona	—	—	—	10	D	3	D	S	—	D
Arkansas	149 053	2	D	10	D	1	D	Z	D	D
California	465 289	17	325 820	15	118 911	*13	*20 557	6	8	Z
Colorado	82 573	*15	45 824	12	D	*9	D	8	11	D
Connecticut	D	1	D	4	D	2	D	D	D	D
Delaware	19 884	1	D	6	D	—	—	Z	D	D
District of Columbia	D	—	—	3	D	—	—	D	—	D
Florida	D	3	D	17	33 327	S	D	D	D	Z
Georgia	171 686	3	D	21	D	1	D	Z	D	D
Hawaii *	30 067	2	D	9	D	—	—	36	D	D
Idaho	14 770	3	D	*13	D	5	D	2	D	D
Illinois	167 685	6	D	29	D	S	D	3	D	D
Indiana	296 198	8	D	20	D	1	D	Z	D	D
Iowa	21 974	—	—	8	21 974	—	—	—	—	Z
Kansas	70 824	4	D	14	D	S	D	3	D	D
Kentucky	144 431	7	D	28	86 775	1	D	5	D	Z
Louisiana	1 103 545	20	D	50	D	2	D	1	D	D
Maine	D	2	D	4	5 997	—	—	D	D	Z
Maryland	57 617	2	D	24	51 795	3	D	10	D	12
Massachusetts	22 692	*5	S	6	17 067	—	—	21	S	Z
Michigan	62 175	*26	D	11	D	—	—	5	D	D
Minnesota	45 950	5	D	7	D	—	—	Z	D	D
Mississippi	68 053	1	D	20	D	—	—	Z	D	D
Missouri	49 253	2	D	12	D	—	—	Z	D	D
Montana	D	—	—	8	D	—	—	D	—	D
Nebraska	D	—	—	7	D	1	D	D	—	D
Nevada	D	*4	D	18	D	1	D	D	D	D
New Hampshire	13 019	*2	D	4	D	—	—	3	D	D
New Jersey	65 825	10	D	13	D	2	D	1	D	D
New Mexico	42 090	*6	D	12	D	1	D	8	D	D
New York	D	*6	D	14	27 225	*2	D	D	D	Z
North Carolina	141 366	—	—	16	D	1	D	Z	—	D
North Dakota	33 646	2	D	11	D	—	—	Z	D	D
Ohio	253 605	16	152 180	27	65 392	8	36 033	1	1	1
Oklahoma	37 326	4	7 335	*31	*21 150	15	8 841	34	Z	60
Oregon	23 968	1	D	10	D	1	D	Z	D	D
Pennsylvania	236 542	*16	165 300	25	64 641	*6	*6 602	26	37	Z
Rhode Island	—	—	—	—	—	—	—	—	—	—
South Carolina	353 661	2	D	15	D	1	D	Z	D	D
South Dakota	6 471	1	D	2	D	—	—	Z	D	D
Tennessee	D	3	D	18	80 383	1	D	D	D	Z
Texas	3 497 010	80	3 368 456	25	87 073	*29	41 481	2	2	Z
Utah	71 655	*9	D	7	D	1	D	24	D	D
Vermont	D	—	—	1	D	—	—	D	—	D
Virginia	34 355	4	D	13	D	2	D	1	D	D
Washington	128 983	*13	D	11	D	1	D	1	D	D
West Virginia	193 063	9	D	21	D	2	D	2	D	D
Wisconsin	11 430	1	D	7	D	—	—	Z	D	D
Wyoming	47 285	*3	D	10	D	—	—	3	D	D

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **Other building construction.** Includes all types of residential and nonresidential building construction not shown elsewhere.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military nonbuilding such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

All Other Heavy Construction

1997

Issued January 2000

EC97C-2349D

1997 Economic Census

Construction

Industry Series



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Economics and Statistics Administration
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Industry Series



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
234990	All other heavy construction	18 236	219 486	7 284 989	30 521 562	25 366 926	17 528 292	8 853 164	1 373 152
162920	Heavy construction, n.e.c. (pt)	15 475	192 974	6 333 978	27 318 228	22 631 066	15 286 024	8 122 920	1 147 642
735320	Heavy construction equipment rental (pt)	2 295	23 586	834 076	2 524 507	2 349 906	1 962 928	597 203	217 358
874136	Management services (pt)	465	2 926	116 935	678 827	385 953	279 340	133 042	8 153

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—	
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers		
											A
234990, ALL OTHER HEAVY CONSTRUCTION											
United States	18 236	219 486	171 254	151 376	173 463	184 287	175 891	7 284 989	5 174 943	1	
Alabama	354	3 229	2 613	2 341	2 577	2 813	2 721	77 818	52 479	18	
Alaska	100	S	448	D	S	797	D	31 506	18 851	S	
Arizona	227	D	D	D	D	D	D	D	D	D	
Arkansas	261	2 876	2 547	2 151	2 689	2 838	2 509	62 369	48 891	33	
California	1 427	20 045	15 774	14 535	15 462	16 781	16 319	875 510	645 093	4	
Colorado	261	4 222	3 276	3 071	3 440	3 441	3 152	138 803	96 580	13	
Connecticut	168	D	D	D	D	D	D	D	D	D	
Delaware	*30	D	D	D	D	D	D	D	D	D	
District of Columbia	6	D	D	D	D	D	D	D	D	D	
Florida	1 064	13 448	10 632	10 363	10 564	10 924	10 677	375 224	263 434	7	
Georgia	503	8 330	6 866	6 269	6 775	7 088	7 332	247 667	172 496	9	
Hawaii *	71	D	D	D	D	D	D	509	D	D	
Idaho	214	D	2 694	D	D	D	D	231 230	112 289	D	
Illinois	529	6 800	5 578	4 210	5 892	6 316	5 896	271 412	209 854	4	
Indiana	402	4 596	3 402	2 931	3 300	3 625	3 753	157 834	106 087	7	
Iowa	287	1 610	1 294	962	1 378	1 429	1 409	40 228	32 691	21	
Kansas	251	2 912	2 222	2 070	2 248	2 326	2 243	85 034	63 849	11	
Kentucky	342	3 102	D	D	2 364	2 623	2 460	83 978	60 270	9	
Louisiana	368	6 683	5 085	4 718	5 057	5 376	5 189	212 322	151 135	10	
Maine	148	D	D	D	D	D	D	D	D	D	
Maryland	224	3 511	2 608	2 457	2 665	2 715	2 596	107 853	73 816	6	
Massachusetts	431	5 343	4 145	3 289	4 278	4 684	4 331	212 825	155 239	8	
Michigan	664	5 279	4 204	2 787	4 568	4 996	4 465	204 130	151 739	10	
Minnesota	452	D	D	D	D	4 195	3 846	155 437	119 489	D	
Mississippi	345	D	D	D	D	D	D	D	D	D	
Missouri	571	D	D	D	D	D	D	D	D	D	
Montana	171	1 012	D	D	927	1 069	833	D	D	16	
Nebraska	231	D	D	D	D	D	D	D	D	D	
Nevada	170	2 596	2 067	1 700	2 165	2 206	2 195	92 784	71 955	8	
New Hampshire	135	D	D	D	D	D	D	D	D	D	
New Jersey	443	4 610	3 458	2 874	3 527	3 829	3 603	184 826	117 167	7	
New Mexico	92	533	393	323	383	453	415	12 550	D	19	
New York	805	9 464	7 202	5 859	7 634	8 222	7 092	375 571	261 792	5	
North Carolina	706	D	D	D	D	D	D	D	D	D	
North Dakota	55	D	D	D	D	D	D	D	D	D	
Ohio	649	6 427	5 006	4 029	5 012	5 475	5 508	222 867	160 839	6	
Oklahoma	229	2 028	1 624	1 722	1 663	1 536	1 576	45 691	34 703	19	
Oregon	293	D	D	D	D	D	D	D	D	D	
Pennsylvania	592	7 979	5 837	5 089	6 068	6 349	5 843	263 442	179 955	7	
Rhode Island	91	613	407	320	431	439	437	20 026	12 910	16	
South Carolina	172	2 509	1 984	1 925	1 973	2 052	1 987	72 635	D	9	
South Dakota	82	D	D	D	D	D	D	526	D	D	
Tennessee	383	6 294	5 226	5 193	5 112	5 171	5 426	193 910	133 921	5	
Texas	1 223	17 947	14 452	13 454	14 557	15 010	14 789	504 959	349 375	6	
Utah	156	1 444	1 230	1 011	1 198	1 397	1 315	45 739	34 647	10	
Vermont	101	D	D	D	D	D	D	D	D	D	
Virginia	482	4 826	4 059	4 084	4 128	4 142	3 883	146 350	111 419	8	
Washington	573	5 753	4 493	4 166	4 206	4 717	4 882	234 885	173 421	6	
West Virginia	242	3 655	3 246	3 143	3 218	3 466	3 157	74 304	52 836	28	
Wisconsin	350	D	D	1 711	2 642	D	D	D	D	D	
Wyoming	111	1 350	D	907	1 233	D	1 195	32 664	26 242	16	

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
234990, ALL OTHER HEAVY CONSTRUCTION										
United States	30 521 562	25 366 926	17 528 292	8 853 164	5 154 637	1 112 355	1 373 152	11 982 762	1	2
Alabama	D	D	238 398	D	52 171	14 083	14 571	142 173	D	19
Alaska	D	D	85 909	D	D	S	S	D	D	S
Arizona	D	D	D	D	D	D	D	D	D	D
Arkansas	209 363	188 753	129 939	D	20 610	11 571	D	D	D	9
California	3 510 085	2 870 920	1 893 348	1 074 288	639 165	118 510	124 426	1 033 388	3	7
Colorado	664 831	521 673	346 034	D	143 158	33 503	16 550	177 090	12	25
Connecticut	D	D	D	D	D	D	D	D	D	D
Delaware	D	D	D	D	D	2 035	4 501	D	D	8
District of Columbia	D	D	D	D	D	D	1 656	D	D	Z
Florida	D	D	960 937	D	381 338	75 146	77 060	671 210	D	9
Georgia	899 480	779 723	548 670	D	119 757	30 878	56 921	438 609	10	15
Hawaii *	118 822	D	D	26 389	D	2 660	D	D	D	D
Idaho	D	D	747 203	D	69 492	6 168	9 506	110 517	D	11
Illinois	D	D	801 814	D	152 357	64 999	61 896	801 310	D	7
Indiana	672 816	549 014	380 838	D	123 803	22 854	33 794	253 870	5	9
Iowa	180 009	D	94 040	D	D	4 537	17 399	148 381	D	24
Kansas	D	D	224 786	118 853	D	12 284	28 142	226 302	D	18
Kentucky	385 462	327 922	199 253	134 963	57 541	D	16 153	143 472	9	10
Louisiana	D	D	473 456	D	134 392	27 788	35 569	322 783	D	17
Maine	D	D	D	D	D	D	D	D	D	D
Maryland	452 132	D	244 411	D	D	12 632	20 460	230 187	D	7
Massachusetts	955 561	711 920	446 453	283 370	243 641	34 035	37 615	311 956	11	11
Michigan	D	D	481 074	D	135 298	26 397	44 470	434 134	D	8
Minnesota	D	D	503 160	D	110 985	25 159	52 599	571 604	D	25
Mississippi	D	D	D	D	36 595	D	21 479	D	D	20
Missouri	D	D	D	D	D	D	D	D	D	D
Montana	D	D	73 465	D	D	6 652	D	D	D	D
Nebraska	D	D	D	D	D	D	22 248	D	D	28
Nevada	368 225	D	189 853	D	D	D	26 207	213 101	D	2
New Hampshire	D	D	D	D	D	D	3 557	D	D	17
New Jersey	820 812	D	463 065	D	D	26 632	37 445	226 378	D	8
New Mexico	49 072	47 513	34 253	D	1 559	1 239	2 249	11 187	23	10
New York	D	D	931 721	D	292 598	60 128	57 016	494 833	D	13
North Carolina	D	D	D	D	111 662	D	D	D	D	D
North Dakota	D	D	D	D	D	D	D	D	D	D
Ohio	1 007 220	802 664	522 827	283 831	204 556	37 817	38 758	328 431	5	11
Oklahoma	178 069	152 644	87 802	D	25 425	6 460	8 223	56 030	15	18
Oregon	D	D	D	D	D	D	D	D	D	D
Pennsylvania	1 049 572	898 672	707 944	D	150 900	32 804	44 963	453 786	7	14
Rhode Island	D	D	D	D	D	1 644	D	D	D	D
South Carolina	D	D	D	D	D	D	14 776	123 725	D	15
South Dakota	D	D	D	D	D	1 002	3 323	24 508	D	34
Tennessee	685 228	587 543	355 611	D	97 685	39 366	29 466	D	4	7
Texas	2 035 639	1 771 775	1 205 963	626 947	263 864	79 987	88 786	688 924	6	6
Utah	179 789	138 693	84 841	D	41 096	5 405	9 584	110 188	8	6
Vermont	D	D	D	D	D	8 424	D	55 873	D	D
Virginia	530 722	457 980	341 377	D	72 742	18 676	34 372	306 595	9	19
Washington	956 911	822 794	573 640	268 226	134 117	30 702	42 003	306 435	8	11
West Virginia	305 429	266 521	201 945	78 118	38 908	9 174	S	221 097	12	18
Wisconsin	D	D	D	D	D	D	23 704	D	D	S
Wyoming	108 697	D	77 055	D	D	6 756	9 354	55 233	D	12

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
234990, ALL OTHER HEAVY CONSTRUCTION			234990, ALL OTHER HEAVY CONSTRUCTION—		
Number of establishments in business during year	18 236	2	Con.		
Number of proprietors and working partners	6 339	5	Selected costs—Con.		
Total number of employees	219 486	1	Cost of selected power, fuels, and lubricants	848 934	3
Number of construction workers in March	151 376	2	Cost of electricity	102 642	15
Number of construction workers in May	173 463	2	Cost of natural gas and manufactured gas	19 146	12
Number of construction workers in August	184 287	2	Cost of gasoline and diesel fuel	662 903	2
Number of construction workers in November	175 891	2	Cost of on-highway use of gasoline and diesel fuel	293 140	2
Average number of construction workers	171 254	2	Cost of off-highway use of gasoline and diesel fuel	369 763	2
Number of other employees in March	47 866	2	Cost of all other fuels and lubricants	64 242	3
Number of other employees in May	47 735	2	Rental cost for machinery, equipment, and buildings	1 112 355	2
Number of other employees in August	48 487	2	Rental cost for machinery and equipment	996 973	2
Number of other employees in November	48 839	2	Rental cost for buildings	115 382	3
Average number of other employees	48 232	2	Selected purchased services	1 130 459	2
Payroll, all employees	7 284 989	1	Purchased communication services	199 936	2
Payroll, construction workers	5 174 943	1	Cost of repairs to buildings and other structures	37 004	5
Payroll, other employees	2 110 046	2	Cost of repairs to machinery and equipment	893 518	2
First-quarter payroll, all employees	1 467 631	1	Value of construction work	30 521 562	1
Fringe benefits, all employees	1 828 701	1	Value of construction work on government owned projects ..	13 811 570	2
Legally required expenditures	1 108 307	1	Value of construction work on federally owned projects ..	2 484 033	4
Voluntary expenditures	720 394	1	Value of construction work on state and locally owned projects	11 327 538	2
Value of business done	31 536 094	1	Value of construction work on privately owned projects	16 709 992	1
Value of construction work	30 521 562	1	Beginning-of-year gross book value of depreciable assets	11 070 952	2
Value of construction work subcontracted in from others ...	7 216 924	2	Capital expenditures, other than land	1 373 152	2
Other business receipts	1 014 531	4	Retirements and disposition of depreciable assets	461 342	4
Net value of construction	25 366 926	1	End-of-year gross book value of depreciable assets	11 982 762	2
Value added	17 528 292	1	Depreciation charges during year	1 228 762	2
Selected costs	14 007 801	2	Number of establishments with inventories	3 578	5
Cost of materials, components, and supplies	8 004 231	2	Value of construction work for establishments with inventories ..	9 727 457	2
Cost of construction work subcontracted out to others	5 154 637	2	End of 1997, inventories of materials and supplies	225 506	10
			End of 1996, inventories of materials and supplies	216 176	10
			Number of establishments with no inventories	7 334	4
			Value of construction work for establishments with no inventories	12 710 926	3
			Number of establishments not reporting inventories	7 324	3
			Value of construction work for establishments not reporting inventories	8 083 180	2

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
234990, ALL OTHER HEAVY CONSTRUCTION											
Total	18 236	219 486	7 284 989	31 536 094	30 521 562	25 366 926	17 528 292	8 853 164	5 154 637	1	1
Establishments with 1 to 4 employees	10 100	19 721	430 912	2 212 274	2 170 968	1 991 155	1 480 738	551 723	179 813	4	4
Establishments with 5 to 9 employees	3 442	22 530	590 117	2 521 996	2 468 391	2 214 730	1 595 697	672 638	253 661	5	5
Establishments with 10 to 19 employees	2 326	30 667	942 962	3 753 603	3 668 370	3 232 720	2 277 217	1 040 737	435 650	5	5
Establishments with 20 to 49 employees	1 662	48 501	1 596 619	6 427 371	6 202 682	5 303 516	3 685 829	1 842 376	899 166	5	4
Establishments with 50 to 99 employees	422	29 210	1 110 262	5 025 590	4 903 967	3 936 872	2 522 446	1 536 049	967 095	4	4
Establishments with 100 to 249 employees	215	31 911	1 177 816	5 382 349	5 226 132	4 088 735	2 709 779	1 535 173	1 137 397	4	1
Establishments with 250 to 499 employees	54	18 658	715 172	3 329 840	3 161 961	2 503 469	1 627 107	1 044 241	658 492	Z	Z
Establishments with 500 to 999 employees	10	7 052	299 413	1 352 782	1 342 965	1 006 504	606 220	410 101	336 461	Z	Z
Establishments with 1,000 employees or more	6	11 238	421 716	1 530 289	1 376 128	1 089 226	1 023 259	220 128	286 902	Z	Z

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
234990, ALL OTHER HEAVY CONSTRUCTION											
Total	18 236	219 486	7 284 989	31 536 094	30 521 562	25 366 926	17 528 292	8 853 164	5 154 637	1	1
Establishments with value of business done less than \$25,000	S	D	S	S	S	S	S	S	S	D	S
Establishments with value of business done \$25,000 to \$49,999	S	D	7 216	S	S	S	S	S	S	D	S
Establishments with value of business done \$50,000 to \$99,999	1 592	2 114	30 988	115 213	114 362	108 780	80 594	29 038	5 582	11	9
Establishments with value of business done \$100,000 to \$249,999	4 247	9 769	169 091	721 850	707 588	670 569	507 716	177 116	S	6	6
Establishments with value of business done \$250,000 to \$499,999	3 390	14 804	299 810	1 216 502	1 193 769	1 134 766	839 575	317 925	59 003	7	6
Establishments with value of business done \$500,000 to \$999,999	2 762	20 697	499 808	1 927 956	1 882 257	1 735 686	1 273 324	508 061	146 571	7	6
Establishments with value of business done \$1,000,000 to \$2,499,999	2 445	33 146	1 010 310	3 854 766	3 755 858	3 371 377	2 430 957	1 039 328	384 481	5	5
Establishments with value of business done \$2,500,000 to \$4,999,999	1 100	27 810	954 864	3 831 510	3 727 927	3 260 419	2 239 032	1 124 971	467 508	5	6
Establishments with value of business done \$5,000,000 to \$9,999,999	578	26 855	963 482	3 972 271	3 811 596	3 225 529	2 242 380	1 143 824	586 067	7	6
Establishments with value of business done \$10,000,000 or more	533	83 116	3 346 071	15 853 879	15 286 487	11 819 439	7 884 930	4 501 902	3 467 047	1	1

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
234990, ALL OTHER HEAVY CONSTRUCTION								
Total	30 521 562	20 444 169	5 380 020	3 993 819	1	1	3	3
Building construction, total	3 130 716	2 163 263	579 756	387 697	3	3	4	5
Single-family houses, detached and attached	496 797	412 338	51 605	32 854	6	6	11	12
Manufacturing and light industrial buildings	782 200	393 959	221 390	166 852	5	9	5	9
Office buildings	451 724	342 348	78 401	30 975	4	5	10	12
All other commercial buildings, nec	549 343	430 111	66 150	53 082	6	8	6	2
Other building construction	850 652	584 508	162 211	103 933	3	3	4	6
Nonbuilding construction, total	26 687 291	18 280 906	4 800 264	3 606 122	1	2	3	3
Highways, streets, and related work	1 929 028	1 038 470	529 103	361 454	3	4	5	4
Private driveways and parking areas	817 586	587 824	112 262	117 500	7	7	12	15
Bridges, tunnels, and elevated highways	907 347	656 343	175 321	75 683	4	5	5	10
Sewers, water mains, and related facilities	3 400 147	2 563 578	502 295	334 274	3	4	8	6
Sewers, sewer lines, septic systems, and related facilities	2 220 025	1 646 691	355 650	217 684	4	4	10	7
Water mains and related facilities	1 180 122	916 887	146 645	116 591	5	5	5	10
Pipeline construction other than sewer or water lines	568 581	358 846	99 435	110 300	9	13	3	18
Power and communication transmission lines, cables, towers, and related facilities	640 427	454 587	94 177	91 663	11	14	6	12
Power plants	713 732	562 222	66 093	85 417	3	1	15	12
Blast furnaces, petroleum refineries, chemical complexes, etc	294 369	139 167	32 927	122 275	6	7	14	10
Sewage and water treatment plants	4 548 267	2 963 602	1 426 146	158 519	4	5	8	9
Sewage treatment plants	2 634 935	1 637 346	898 345	99 244	5	4	11	9
Water treatment plants	1 913 332	1 326 255	527 801	59 275	6	8	5	11
Mass transit construction	1 796 651	1 020 221	355 648	420 782	5	6	8	7
Urban mass transit construction	605 814	454 662	78 635	72 517	1	2	3	Z
Railroad construction	1 190 836	565 559	277 013	348 265	8	11	10	8
Conservation and development construction	2 441 914	1 766 696	324 158	351 059	4	5	8	10
Dam and reservoir construction	654 446	548 879	32 442	73 125	6	6	19	11
Dry/solid waste disposal	899 794	614 417	157 338	128 038	5	6	6	16
Harbor and port facilities	581 656	439 528	97 220	44 907	6	8	5	11
Marine construction	1 836 823	804 727	301 272	730 824	4	4	4	7
Recreational facilities	1 809 049	1 417 854	271 690	119 505	7	7	11	13
Other nonbuilding construction, nec	2 847 475	2 343 946	222 733	280 796	3	2	6	9
Construction work, nsk	703 556	X	X	X	8	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
234990, ALL OTHER HEAVY CONSTRUCTION											
Total	18 236	219 486	7 284 989	30 521 562	X	25 366 926	17 528 292	5 154 637	1	1	2
Establishments not specializing ..	4 028	72 683	2 554 429	10 770 710	X	8 653 781	5 779 597	2 116 929	3	2	4
Establishments specializing 51 percent or more	14 209	146 803	4 730 560	19 750 853	17 388 925	16 713 145	11 748 696	3 037 708	2	2	2
Manufacturing and light industrial buildings											
All establishments specializing	189	2 542	113 659	316 194	254 723	304 740	255 723	11 453	10	15	1
Specialization 100 percent	S	S	31 473	S	S	S	S	5 510	S	S	1
Specialization 90 to 99 percent ...	[#] 20	291	17 898	42 314	39 365	42 223	[#] 37 057	[#] 91	23	36	52
Specialization 80 to 89 percent ...	28	505	22 024	61 092	50 688	58 161	57 911	2 931	4	2	3
Specialization 70 to 79 percent ...	8	46	2 142	6 240	4 553	D	5 237	D	Z	Z	D
Specialization 60 to 69 percent ...	[#] 42	791	34 634	113 838	74 255	D	83 923	D	31	39	D
Specialization 51 to 59 percent ...	8	135	5 488	15 227	8 380	15 094	12 187	133	11	8	18
Highways, streets, and related work											
All establishments specializing	227	4 051	109 913	428 206	364 508	373 116	167 927	55 090	17	6	5
Specialization 100 percent	134	1 030	34 004	99 675	99 675	92 518	68 953	7 157	22	20	32
Specialization 90 to 99 percent ...	[#] 15	866	35 964	D	D	D	25 263	D	10	D	D
Specialization 80 to 89 percent ...	S	S	S	S	S	D	S	D	S	S	D
Specialization 70 to 79 percent ...	4	195	9 828	D	D	41 935	9 556	D	8	D	D
Specialization 60 to 69 percent ...	7	132	5 802	D	D	D	14 771	2 773	15	D	1
Specialization 51 to 59 percent ...	5	464	13 829	50 790	26 788	D	26 479	D	Z	Z	D
Private driveways and parking areas											
All establishments specializing	752	4 905	128 506	499 123	413 756	439 180	314 620	59 942	13	12	17
Specialization 100 percent	362	2 140	58 698	193 346	193 346	179 073	133 771	14 273	19	14	31
Specialization 90 to 99 percent ...	S	550	9 759	40 682	37 583	37 333	27 614	3 349	36	28	Z
Specialization 80 to 89 percent ...	52	[#] 42	[#] 14 672	[#] 75 732	[#] 60 979	[#] 69 795	[#] 38 403	[#] 5 936	58	60	67
Specialization 70 to 79 percent ...	89	678	23 836	84 589	59 487	73 106	56 408	11 483	14	11	17
Specialization 60 to 69 percent ...	105	666	16 282	82 867	50 864	59 502	42 561	23 364	27	29	35
Specialization 51 to 59 percent ...	[#] 61	[#] 229	[#] 5 259	21 908	11 498	[#] 20 371	[#] 15 863	1 536	41	39	36
Bridges, tunnels, and elevated highways											
All establishments specializing	234	2 187	64 853	272 411	214 640	240 231	161 647	32 180	16	13	10
Specialization 100 percent	142	648	16 349	64 282	64 282	58 547	39 732	[#] 5 735	28	24	53
Specialization 90 to 99 percent ...	17	[#] 230	[#] 7 719	[#] 39 300	[#] 35 712	D	[#] 30 874	D	53	57	D
Specialization 80 to 89 percent ...	[#] 38	[#] 438	[#] 10 835	[#] 36 403	[#] 29 366	D	[#] 26 025	D	52	45	D
Specialization 70 to 79 percent ...	[#] 14	298	9 868	54 103	39 787	40 465	15 141	13 638	19	5	1
Specialization 60 to 69 percent ...	[#] 18	313	9 930	39 085	23 829	34 583	26 308	4 502	37	32	24
Specialization 51 to 59 percent ...	5	259	10 153	39 239	21 663	34 870	23 566	S	Z	Z	S
Sewers, water mains, and related facilities											
All establishments specializing	2 396	13 211	334 286	1 420 057	1 135 316	1 313 401	905 423	106 656	6	6	8
Specialization 100 percent	1 140	5 298	120 536	485 718	485 718	453 689	319 516	32 029	11	12	24
Specialization 90 to 99 percent ...	162	948	29 895	131 224	121 220	122 908	87 361	8 316	15	21	16
Specialization 80 to 89 percent ...	237	1 296	25 427	121 354	97 889	113 807	78 500	7 546	19	17	12
Specialization 70 to 79 percent ...	392	2 033	48 896	220 041	159 687	205 328	143 450	14 713	14	15	16
Specialization 60 to 69 percent ...	273	2 232	70 249	291 336	179 244	262 556	175 833	28 780	16	13	11
Specialization 51 to 59 percent ...	191	1 404	39 282	170 385	91 558	155 114	100 763	15 271	15	12	9
Pipeline construction other than sewer or water lines											
All establishments specializing	250	3 308	105 256	351 404	288 773	317 068	232 326	34 336	16	14	5
Specialization 100 percent	94	840	29 921	112 249	112 249	101 910	79 392	S	28	33	S
Specialization 90 to 99 percent ...	[#] 38	914	[#] 26 270	78 524	73 669	76 422	52 894	[#] 2 102	39	38	55
Specialization 80 to 89 percent ...	[#] 63	D	D	32 448	27 164	D	D	D	D	38	D
Specialization 70 to 79 percent ...	[#] 49	[#] 423	[#] 11 285	D	D	29 849	24 740	D	54	D	D
Specialization 60 to 69 percent ...	2	D	D	D	D	D	D	D	D	D	D
Specialization 51 to 59 percent ...	4	547	21 572	78 678	42 441	62 697	44 225	15 981	Z	Z	Z

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997—Con.

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—												
				For all types	For specialized type				B	D	H										
												A	B	C	D	E	F	G	H	B	D
234990, ALL OTHER HEAVY CONSTRUCTION—Con.																					
Power and communication transmission lines, cables, towers, and related facilities																					
All establishments specializing	511	4 830	128 798	468 520	450 508	414 883	344 319	53 638	12	14	10										
Specialization 100 percent	390	3 904	98 269	368 874	368 874	321 045	274 434	47 828	14	15	10										
Specialization 90 to 99 percent	S	*359	S	S	S	D	S	D	60	S	D										
Specialization 80 to 89 percent	*17	212	6 014	24 608	20 018	22 648	17 648	1 960	36	28	3										
Specialization 70 to 79 percent	*9	82	2 581	8 159	5 984	D	*4 093	D	38	38	D										
Specialization 60 to 69 percent	*60	*144	*4 746	*11 886	*7 378	*10 992	*8 380	S	60	56	S										
Specialization 51 to 59 percent	*9	*128	*1 821	S	S	D	S	D	69	S	D										
Sewage and water treatment plants																					
All establishments specializing	669	13 773	477 194	2 699 575	2 156 710	1 901 704	989 209	797 871	8	7	7										
Specialization 100 percent	205	3 398	136 337	818 096	818 096	598 064	327 871	220 032	11	13	17										
Specialization 90 to 99 percent	S	1 450	51 706	327 674	297 537	230 101	90 279	97 572	10	6	2										
Specialization 80 to 89 percent	*72	1 466	48 265	255 130	210 567	182 923	92 562	72 207	24	23	21										
Specialization 70 to 79 percent	130	2 271	81 213	413 160	308 556	295 578	175 800	117 582	19	20	27										
Specialization 60 to 69 percent	132	3 620	113 233	539 916	334 524	378 678	182 227	161 238	18	10	9										
Specialization 51 to 59 percent	*41	1 569	46 439	345 601	187 430	*216 360	*120 470	129 241	28	30	14										
Mass transit construction																					
All establishments specializing	393	10 861	356 284	1 675 367	1 478 246	1 327 243	872 684	348 124	14	5	2										
Specialization 100 percent	352	8 075	240 412	1 043 053	1 043 053	863 020	576 726	180 032	18	8	3										
Specialization 90 to 99 percent	*20	791	24 244	112 182	105 750	87 738	51 565	24 443	33	25	1										
Specialization 80 to 89 percent	1	D	D	D	D	D	D	D	D	D	D										
Specialization 70 to 79 percent	*12	492	D	107 298	77 283	D	42 381	D	21	22	D										
Specialization 60 to 69 percent	6	971	43 684	D	D	210 877	D	D	D	Z	D										
Specialization 51 to 59 percent	*3	D	D	D	D	D	D	D	D	D	D										
Conservation and development construction																					
All establishments specializing	3 167	19 139	518 135	2 215 356	1 947 428	2 024 731	1 404 772	190 625	6	6	8										
Specialization 100 percent	2 146	10 540	267 187	1 159 140	1 159 140	1 065 202	780 146	93 938	7	7	10										
Specialization 90 to 99 percent	252	1 875	54 080	229 741	213 954	206 377	139 092	23 365	14	14	21										
Specialization 80 to 89 percent	259	1 978	60 147	249 653	204 837	227 693	147 743	21 960	13	13	7										
Specialization 70 to 79 percent	113	1 034	26 237	134 677	99 825	126 074	81 955	8 603	19	25	18										
Specialization 60 to 69 percent	246	2 995	88 467	353 501	221 930	316 920	188 558	36 581	25	23	31										
Specialization 51 to 59 percent	S	716	22 017	88 644	47 742	82 466	67 276	6 178	18	17	1										
Dry/solid waste disposal																					
All establishments specializing	209	4 374	161 430	746 785	638 569	643 130	446 888	103 656	5	6	6										
Specialization 100 percent	152	2 137	74 062	352 148	352 148	303 611	188 783	48 537	10	11	11										
Specialization 90 to 99 percent	8	463	14 950	90 543	84 428	72 015	44 230	18 528	3	2	1										
Specialization 80 to 89 percent	9	295	14 545	53 407	43 716	48 674	36 476	4 734	8	3	1										
Specialization 70 to 79 percent	13	324	15 789	74 059	53 979	69 104	55 474	4 955	16	9	Z										
Specialization 60 to 69 percent	S	S	S	S	S	S	S	S	S	S	S										
Specialization 51 to 59 percent	4	528	17 948	70 040	36 335	61 673	53 341	8 367	Z	Z	Z										
Marine construction																					
All establishments specializing	1 008	10 078	397 125	1 728 083	1 669 955	1 557 190	1 185 243	170 894	5	4	5										
Specialization 100 percent	869	8 162	310 702	1 433 105	1 433 105	1 287 635	970 400	145 471	6	5	5										
Specialization 90 to 99 percent	*50	622	25 841	108 622	102 841	101 483	97 266	7 139	12	7	10										
Specialization 80 to 89 percent	19	491	26 097	81 257	66 232	69 066	58 536	12 191	11	5	Z										
Specialization 70 to 79 percent	*35	400	16 342	38 123	27 849	36 894	30 771	1 229	28	28	39										
Specialization 60 to 69 percent	*14	296	15 793	47 960	29 606	46 668	28 045	1 292	38	25	Z										
Specialization 51 to 59 percent	S	*107	*2 350	S	S	S	S	*3 572	73	S	74										
Recreational facilities																					
All establishments specializing	1 195	11 561	352 074	1 606 298	1 488 477	1 305 163	877 444	301 135	7	8	14										
Specialization 100 percent	S	8 565	253 547	1 185 338	1 185 338	965 866	619 082	219 471	8	10	18										
Specialization 90 to 99 percent	S	S	S	48 268	47 000	S	S	11 685	S	37	7										
Specialization 80 to 89 percent	*37	513	20 220	98 438	84 178	73 165	46 179	25 273	28	29	33										
Specialization 70 to 79 percent	80	677	18 034	60 307	44 132	50 008	41 882	10 299	24	18	23										
Specialization 60 to 69 percent	S	937	29 580	112 769	71 951	92 175	64 015	20 594	27	25	36										
Specialization 51 to 59 percent	28	481	21 872	101 178	55 880	87 366	78 600	13 812	12	5	4										

Table 9. Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
234990, ALL OTHER HEAVY CONSTRUCTION		
Total	31 536 094	1
Building, developing, and general contracting, total	322 512	3
Building construction on land owned by others—general contractor or design-builder	322 512	3
Heavy construction, total	28 175 120	1
Blasting contractor, except building demolition	304 570	15
Construction management—heavy construction	1 209 697	7
Dredging contractor	770 252	7
Excavation work, earthmoving or land clearing contractor, not connected with buildings	7 318 164	2
Heavy construction contractor	13 199 147	2
Highway and street general contractor	1 325 687	3
Paving contractor—asphalt or concrete for highways, streets, or airport runways	261 907	7
Pile driving contractor	819 248	8
Rental of construction machinery or equipment to others, with an operator	2 359 403	3
Trenching contractor	607 046	8
Special trade contractors, total	817 797	4
Excavation work: earthmoving or land clearing contractor, connected with buildings	817 797	4
Other construction activities, nec	1 016 523	6
Other business activities secondary to construction activities, total	999 281	4
Engineering services, secondary to construction activities	143 675	15
Mining—minerals produced and sold to others, secondary to construction activities	192 387	12
Other business activities, secondary to construction activities, nec	471 921	3
Rental of construction machinery or equipment to others, without an operator, secondary to construction activities	191 298	3
Kind of business activity, nsk	204 862	3

Table 10. Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
234990, ALL OTHER HEAVY CONSTRUCTION											
Total	18 236	219 486	7 284 989	30 521 562	X	25 366 926	17 528 292	5 154 637	1	1	2
Establishments not specializing	1 830	39 216	1 305 174	5 439 679	X	4 334 036	3 033 146	1 105 643	5	3	4
Establishments specializing 51 percent or more	16 406	180 270	5 979 815	25 081 885	22 328 318	21 032 891	14 495 147	4 048 994	2	1	2
Construction management—heavy construction											
All establishments specializing	443	2 922	119 190	738 054	722 839	430 538	319 928	307 516	8	8	6
Specialization 100 percent	356	2 395	101 017	594 202	594 202	357 343	246 366	236 858	9	10	6
Specialization 90 to 99 percent	³⁶ S	247	7 238	D	D	52 652	50 022	D	9	D	D
Specialization 80 to 89 percent	3	64	D	D	D	D	D	D	D	Z	D
Specialization 70 to 79 percent	²⁴ S	S	S	S	S	S	S	S	S	S	S
Specialization 60 to 69 percent	S	D	D	S	S	D	S	D	D	S	S
Specialization 51 to 59 percent	3	D	1 049	D	D	D	D	1 161	D	D	Z
Dredging contractor											
All establishments specializing	204	3 498	157 361	691 823	660 963	622 625	529 522	69 198	10	7	9
Specialization 100 percent	123	2 126	93 462	351 594	351 594	316 595	263 833	34 999	15	14	18
Specialization 90 to 99 percent	²⁹ S	907	48 161	288 308	273 986	D	226 676	D	14	4	D
Specialization 80 to 89 percent	S	D	⁴²⁴ S	² 434	¹ 947	² 188	¹ 480	246	D	59	26
Specialization 70 to 79 percent	3	D	9 941	29 240	20 792	D	20 475	D	D	Z	D
Specialization 60 to 69 percent	S	S	S	S	S	S	¹³ 780	—	S	S	—
Specialization 51 to 59 percent	S	³¹ S	³⁷⁷ S	⁴ 337	² 333	³ 848	³ 278	S	62	67	S
Excavation work, earthmoving or land clearing contractor, not connected with buildings											
All establishments specializing	8 266	58 207	1 635 796	6 800 774	5 795 227	6 073 502	4 320 649	727 271	3	3	4
Specialization 100 percent	4 941	27 314	724 495	3 061 100	3 061 100	2 784 941	1 940 284	276 158	4	4	8
Specialization 90 to 99 percent	813	6 490	181 154	778 619	738 367	694 296	448 873	84 323	8	7	6
Specialization 80 to 89 percent	555	4 962	148 932	617 401	506 831	553 160	386 034	64 241	9	8	9
Specialization 70 to 79 percent	641	6 339	194 044	796 564	577 556	687 375	509 348	109 189	11	10	14
Specialization 60 to 69 percent	745	7 328	231 580	945 189	589 682	815 044	599 404	130 145	12	11	14
Specialization 51 to 59 percent	570	5 775	155 591	601 901	321 692	538 686	436 706	63 215	6	6	7
Heavy construction contractor											
All establishments specializing	3 893	80 772	2 836 094	12 705 926	11 419 146	10 045 162	6 310 500	2 660 765	3	2	3
Specialization 100 percent	2 872	44 436	1 556 794	7 152 988	7 152 988	5 608 750	3 318 618	1 544 238	3	3	4
Specialization 90 to 99 percent	341	10 841	337 390	1 451 214	1 369 858	1 179 644	698 289	271 570	15	11	19
Specialization 80 to 89 percent	168	4 744	170 561	893 651	745 961	705 405	384 559	188 247	12	15	13
Specialization 70 to 79 percent	219	10 751	408 212	1 546 004	1 166 203	1 326 953	1 091 107	219 051	4	4	2
Specialization 60 to 69 percent	153	5 250	177 058	1 037 746	652 358	697 773	434 159	339 973	6	3	2
Specialization 51 to 59 percent	140	4 750	186 079	624 323	331 777	526 637	383 767	97 685	6	8	8
Pile driving contractor											
All establishments specializing	345	3 686	150 010	657 693	613 790	640 774	429 074	16 919	11	10	6
Specialization 100 percent	215	2 681	110 043	492 471	492 471	483 196	316 364	9 275	15	13	7
Specialization 90 to 99 percent	⁶⁶ S	257	7 563	32 363	30 490	32 063	18 181	300	13	7	26
Specialization 80 to 89 percent	S	161	10 081	24 108	19 842	23 764	17 652	344	24	10	11
Specialization 70 to 79 percent	¹⁸ S	258	8 508	39 135	29 494	36 884	23 423	2 251	18	20	35
Specialization 60 to 69 percent	S	269	12 201	65 496	39 297	D	51 144	D	12	1	D
Specialization 51 to 59 percent	3	59	1 614	4 120	2 195	D	2 311	D	Z	Z	D
Rental of construction machinery or equipment to others, with an operator											
All establishments specializing	2 157	20 671	741 367	2 263 085	2 019 033	2 107 980	1 765 899	155 106	3	3	3
Specialization 100 percent	1 577	10 581	379 812	1 206 641	1 206 641	1 145 197	883 948	61 444	4	4	1
Specialization 90 to 99 percent	159	2 150	87 797	263 848	246 481	250 447	200 183	13 402	8	7	17
Specialization 80 to 89 percent	150	2 677	87 995	307 370	255 937	273 680	251 642	33 689	15	14	12
Specialization 70 to 79 percent	123	1 937	63 962	174 701	128 843	164 537	156 230	10 165	9	7	5
Specialization 60 to 69 percent	69	1 654	59 671	147 120	93 828	135 906	126 941	11 215	3	2	2
Specialization 51 to 59 percent	78	1 672	62 130	163 404	87 303	138 213	146 955	25 191	9	8	2
Trenching contractor											
All establishments specializing	635	4 765	145 755	515 359	435 872	460 660	328 926	54 699	12	12	2
Specialization 100 percent	409	1 695	47 297	180 069	180 069	165 935	114 939	14 134	19	13	6
Specialization 90 to 99 percent	³⁰ S	1 023	30 681	104 546	101 114	D	71 732	D	20	19	D
Specialization 80 to 89 percent	¹⁸ S	²⁶⁴ S	⁹ 330	³⁷ 686	³⁰ 282	³⁵ 913	²⁹ 690	¹ 773	48	60	46
Specialization 70 to 79 percent	¹⁸ S	⁵⁸⁵ S	²⁰ 154	⁵⁹ 534	⁴² 024	D	²⁹ 517	D	49	45	D
Specialization 60 to 69 percent	118	1 046	33 685	114 848	71 952	101 723	73 130	S	24	33	S
Specialization 51 to 59 percent	⁴² S	¹⁵³ S	4 608	18 676	10 430	D	⁹ 919	D	52	33	D

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Value of construction work	Value of construction work	Value of construction work	Value of construction work	Value of construction work	A	C	E	
	A	B	C	D	E	F	G			
234990, ALL OTHER HEAVY CONSTRUCTION										
United States	30 521 562	10 842	17 416 146	4 013	6 001 432	7 268	7 103 985	1	2	2
Alabama	D	222	D	94	123 887	131	D	D	D	11
Alaska	150 593	60	D	32	D	⁵⁴⁰	D	17	D	D
Arizona	635 022	146	402 835	49	D	81	D	14	21	D
Arkansas	238 026	125	89 674	56	D	136	D	22	19	D
California	3 769 193	744	2 552 116	93	409 137	681	807 941	3	3	8
Colorado	505 482	149	274 536	63	95 970	111	134 976	7	9	7
Connecticut	D	109	D	85	54 219	59	D	D	D	8
Delaware	142 602	²¹	D	99	D	⁸	D	5	D	D
District of Columbia	D	3	D	28	D	3	D	D	D	D
Florida	D	568	D	121	203 670	495	D	D	D	19
Georgia	1 021 344	296	D	161	D	201	D	9	D	D
Hawaii *	134 172	43	95 131	9	15 386	28	23 655	6	8	1
Idaho	148 483	155	D	45	D	57	D	10	D	D
Illinois	830 677	278	D	145	D	251	D	5	D	D
Indiana	580 215	240	D	121	D	137	D	8	D	D
Iowa	268 711	163	112 201	89	D	124	D	14	31	D
Kansas	256 709	171	D	87	D	78	D	12	D	D
Kentucky	399 351	232	D	105	104 843	108	D	8	D	4
Louisiana	938 547	143	D	101	D	219	D	8	D	D
Maine	240 324	77	D	36	62 550	71	D	9	D	29
Maryland	519 045	104	D	93	146 766	113	D	5	D	3
Massachusetts	970 337	278	674 704	132	94 433	153	201 200	11	16	5
Michigan	940 295	383	D	82	D	276	259 262	7	D	D
Minnesota	419 892	234	D	76	D	217	D	9	D	D
Mississippi	502 009	167	D	114	D	178	251 037	9	D	D
Missouri	438 200	382	D	64	D	186	D	8	D	D
Montana	D	81	D	32	21 418	88	20 852	D	D	4
Nebraska	203 170	148	D	39	D	80	D	13	D	D
Nevada	518 636	92	288 379	81	D	56	D	4	7	D
New Hampshire	125 724	89	D	83	D	⁵⁴⁶	D	9	D	D
New Jersey	940 041	277	D	65	D	165	D	9	D	D
New Mexico	80 574	23	²³ 965	35	32 663	⁶⁹	23 945	18	45	27
New York	D	591	D	156	258 673	212	D	D	D	12
North Carolina	984 589	416	501 871	158	D	290	D	6	11	D
North Dakota	D	⁴⁴	D	17	24 185	11	D	D	D	18
Ohio	1 251 623	430	592 626	146	521 836	217	137 161	3	6	1
Oklahoma	193 325	126	97 453	53	43 517	101	52 355	12	23	7
Oregon	486 615	207	D	64	D	84	D	3	D	D
Pennsylvania	1 036 278	429	668 816	130	112 101	161	255 361	7	11	12
Rhode Island	D	79	D	18	5 865	12	D	D	D	5
South Carolina	428 908	77	D	112	D	95	D	7	D	D
South Dakota	89 122	⁶¹	D	35	D	21	D	20	D	D
Tennessee	590 252	242	274 879	64	96 482	140	218 891	5	9	1
Texas	1 989 833	681	1 086 690	95	219 505	537	683 638	6	11	2
Utah	234 021	92	D	35	D	63	D	6	D	D
Vermont	D	60	D	15	D	²⁸	D	D	D	D
Virginia	675 433	351	D	111	D	130	D	7	D	D
Washington	909 423	361	D	75	90 979	209	D	8	D	3
West Virginia	334 569	151	139 782	101	36 609	91	158 178	9	17	7
Wisconsin	464 617	187	D	64	D	163	D	10	D	D
Wyoming	132 658	56	69 502	50	28 951	54	34 205	12	18	5

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **Other building construction.** Includes all types of residential and nonresidential building construction not shown elsewhere.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military nonbuilding such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Plumbing, Heating, and Air-Conditioning Contractors

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1997 Economic Census

Construction

Industry Series



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U.S. CENSUS BUREAU



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division	301-457-4673
Service Sector Statistics Division	301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
235110	Plumbing, heating, & air-conditioning contractors	84 876	788 930	25 720 160	87 330 176	78 496 384	46 576 808	33 016 838	1 361 596
171100	Plumbing, heating, & air-conditioning special trade contractors	84 876	788 930	25 720 160	87 330 176	78 496 384	46 576 808	33 016 838	1 361 596

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers	
235110, PLUMBING, HEATING, & AIR-CONDITIONING CONTRACTORS										
United States	84 876	788 930	599 940	575 724	594 608	622 656	606 774	25 720 160	18 279 714	1
Alabama	1 413	14 066	11 172	10 570	11 500	11 333	11 286	375 525	261 627	4
Alaska	187	1 333	961	909	859	982	1 096	55 496	39 063	13
Arizona	1 344	15 358	11 784	11 762	11 455	11 944	11 976	444 412	314 727	5
Arkansas	980	7 214	5 611	5 167	5 621	5 991	5 664	169 157	123 406	6
California	6 776	64 396	48 875	46 455	48 185	50 282	50 579	2 500 392	1 829 630	1
Colorado	1 654	16 541	12 884	12 381	13 057	13 299	12 801	498 985	360 281	4
Connecticut	1 254	8 868	6 479	6 246	6 588	6 558	6 525	304 430	211 448	4
Delaware	288	3 942	3 029	2 913	2 985	3 158	3 059	139 406	97 407	5
District of Columbia	31	461	342	323	347	368	330	16 581	11 331	6
Florida	4 803	44 510	33 003	31 921	32 555	33 773	33 765	1 210 184	808 674	3
Georgia	2 589	26 088	19 813	19 344	19 307	20 508	20 092	745 613	509 764	4
Hawaii*	243	1 976	1 337	1 444	1 303	1 312	1 289	78 869	53 728	7
Idaho	546	4 961	3 863	3 595	3 963	4 099	3 794	134 837	99 646	6
Illinois	3 756	36 423	27 791	26 153	27 892	29 487	27 632	1 495 104	1 111 017	6
Indiana	1 973	21 461	16 402	15 795	16 290	16 955	16 566	754 554	551 694	2
Iowa	938	9 125	6 819	6 093	6 647	7 297	7 240	275 501	201 583	5
Kansas	1 065	9 054	6 886	6 509	6 754	7 227	7 055	276 099	199 495	7
Kentucky	1 178	12 006	9 422	9 052	9 052	10 011	9 574	317 112	233 198	5
Louisiana	1 200	10 148	7 674	7 434	7 764	7 868	7 632	277 969	189 221	5
Maine	552	2 930	2 181	2 035	2 273	2 177	2 238	78 732	54 823	7
Maryland	2 037	23 109	17 207	16 883	17 308	17 726	16 910	762 103	518 575	3
Massachusetts	2 172	15 548	11 677	11 397	11 593	12 179	11 289	580 187	404 929	4
Michigan	3 187	27 022	20 554	18 916	20 610	21 897	20 794	978 742	704 768	3
Minnesota	1 416	13 656	10 211	9 508	10 004	10 701	10 632	522 806	376 324	3
Mississippi	746	6 793	5 279	4 804	5 196	5 567	5 550	145 477	104 011	6
Missouri	1 824	16 587	12 594	11 975	12 291	13 179	12 933	569 548	411 300	2
Montana	412	2 350	1 799	1 624	1 740	1 924	1 907	68 332	51 205	11
Nebraska	662	5 598	4 369	4 140	4 338	4 619	4 377	174 976	126 247	4
Nevada	515	7 491	6 175	6 091	6 268	6 147	6 193	255 684	194 926	3
New Hampshire	462	3 097	2 304	2 344	2 192	2 370	2 312	95 903	68 677	6
New Jersey	3 320	21 391	15 758	15 183	15 621	16 689	15 539	820 980	578 431	3
New Mexico	600	4 824	3 893	3 804	3 758	4 051	3 960	124 143	93 895	12
New York	5 234	42 540	30 533	29 423	30 536	31 734	30 438	1 525 713	1 012 489	2
North Carolina	3 057	31 326	24 450	24 042	23 765	25 282	24 711	874 860	608 150	3
North Dakota	248	2 359	1 947	1 773	1 855	2 201	1 961	67 537	52 237	10
Ohio	3 329	34 872	26 575	24 975	26 536	27 775	27 013	1 158 021	841 751	3
Oklahoma	1 156	7 288	5 644	5 334	5 736	5 778	5 727	186 741	134 307	6
Oregon	1 079	10 884	8 332	8 119	8 490	8 842	7 878	439 915	332 455	3
Pennsylvania	3 546	33 498	25 353	24 510	24 542	26 303	26 055	1 167 403	830 817	2
Rhode Island	356	1 893	1 417	1 315	1 448	1 511	1 395	62 657	43 832	4
South Carolina	1 351	14 067	11 260	10 856	11 195	11 562	11 428	358 773	262 120	4
South Dakota	311	1 760	1 327	1 228	1 262	1 439	1 379	49 934	34 206	7
Tennessee	1 612	18 810	14 504	14 327	14 568	14 885	14 236	568 979	380 309	3
Texas	5 516	56 618	43 479	41 831	42 907	45 053	44 123	1 644 450	1 147 065	3
Utah	835	7 899	6 254	6 099	6 111	6 645	6 351	234 561	173 567	7
Vermont	245	1 657	1 286	1 281	1 262	1 308	1 293	45 191	33 780	10
Virginia	2 391	24 055	18 959	18 422	19 159	19 432	18 822	672 524	475 238	3
Washington	1 746	16 774	12 145	11 693	11 991	12 408	12 488	594 665	417 457	3
West Virginia	496	3 488	2 809	2 860	2 654	2 912	2 810	83 891	66 039	5
Wisconsin	1 981	19 290	14 478	14 081	14 259	14 823	14 750	697 399	512 820	3
Wyoming	264	1 527	1 039	975	1 015	1 087	1 078	39 102	26 025	11

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
235110, PLUMBING, HEATING, & AIR-CONDITIONING CONTRACTORS										
United States	87 330 176	78 496 384	46 576 808	33 016 838	8 833 796	1 315 324	1 361 596	9 891 859	1	1
Alabama	1 227 115	1 155 231	699 249	469 589	71 884	19 099	22 412	160 701	4	10
Alaska	191 222	164 223	108 139	62 114	26 999	^s 4 521	2 307	27 574	11	16
Arizona	1 558 535	1 453 145	793 404	670 620	105 390	25 873	25 484	159 542	6	11
Arkansas	587 503	548 644	330 419	233 542	38 859	8 545	11 552	90 137	4	15
California	8 179 446	7 426 678	4 449 958	3 074 373	752 769	143 011	118 094	870 603	1	3
Colorado	1 693 660	1 530 481	872 671	681 129	163 179	28 935	30 998	177 132	3	15
Connecticut	1 004 514	912 162	553 885	363 915	92 352	12 838	15 674	109 206	4	11
Delaware	409 763	376 723	239 580	137 526	33 041	7 095	7 216	50 783	5	18
District of Columbia	53 426	46 512	26 808	19 772	6 914	464	641	7 073	4	13
Florida	4 270 074	3 882 746	2 181 664	1 743 206	387 329	58 376	77 091	476 948	2	6
Georgia	2 707 372	2 481 172	1 450 960	1 068 051	226 200	38 972	44 191	300 404	5	7
Hawaii *	262 209	231 089	154 884	84 395	31 120	5 355	2 438	43 249	6	8
Idaho	534 485	462 487	268 830	203 012	71 998	7 366	12 160	57 037	8	18
Illinois	4 666 573	4 245 413	2 681 746	1 612 309	421 160	61 132	70 575	582 331	6	10
Indiana	2 415 608	2 167 212	1 329 427	880 509	248 395	39 358	39 800	294 249	2	9
Iowa	941 814	851 722	542 395	333 338	90 092	11 386	20 011	137 873	5	15
Kansas	991 048	902 062	495 306	413 221	88 986	12 002	12 944	103 151	6	13
Kentucky	1 069 652	997 945	582 799	420 424	71 707	13 460	16 902	158 837	5	11
Louisiana	1 032 992	909 265	526 595	390 003	123 727	19 564	11 475	101 275	6	12
Maine	271 742	249 405	145 708	109 332	22 336	2 897	3 967	49 777	6	16
Maryland	2 706 074	2 274 393	1 311 396	996 255	431 681	36 415	32 271	265 053	3	7
Massachusetts	2 197 054	1 842 845	1 072 589	788 930	354 210	29 122	26 804	182 403	4	8
Michigan	3 345 829	2 958 858	1 820 863	1 168 701	386 972	52 285	54 238	373 997	2	6
Minnesota	1 744 406	1 558 957	932 738	645 039	185 449	23 983	28 759	207 051	3	8
Mississippi	561 720	524 098	302 722	246 454	37 622	7 638	10 380	65 491	6	16
Missouri	1 850 266	1 627 030	1 006 408	630 723	223 236	23 542	32 417	213 900	2	10
Montana	248 138	227 860	122 656	110 880	20 278	3 305	3 815	40 072	13	28
Nebraska	585 515	530 901	306 550	228 098	54 614	7 644	10 061	78 103	4	11
Nevada	881 622	811 489	462 661	355 908	70 133	18 301	10 434	76 483	3	8
New Hampshire	362 465	319 501	179 213	140 289	42 963	6 990	9 562	43 158	7	17
New Jersey	2 809 386	2 460 887	1 481 605	995 667	348 499	43 513	37 123	307 243	4	9
New Mexico	393 575	358 030	208 096	155 469	^s 35 545	5 400	6 599	50 619	12	23
New York	5 292 794	4 627 403	2 818 927	1 887 074	665 391	74 624	62 044	509 027	2	5
North Carolina	2 989 371	2 751 252	1 598 384	1 184 341	238 119	46 171	55 391	359 756	3	6
North Dakota	225 388	205 178	122 164	84 540	20 210	4 450	6 107	33 752	8	38
Ohio	3 847 492	3 363 445	2 052 205	1 349 187	484 047	57 371	58 035	451 005	2	8
Oklahoma	737 958	678 253	397 876	291 994	59 705	10 728	10 826	96 370	9	14
Oregon	1 349 767	1 200 922	719 422	498 268	148 845	20 876	13 541	106 289	2	10
Pennsylvania	4 001 213	3 570 171	2 151 883	1 485 212	431 042	56 244	54 904	474 555	2	8
Rhode Island	240 887	204 306	113 363	91 233	36 581	2 940	3 828	29 508	5	29
South Carolina	1 189 389	1 079 759	605 759	484 566	109 630	18 681	20 124	149 866	5	12
South Dakota	171 663	156 157	89 233	71 723	15 506	1 385	3 075	33 215	9	19
Tennessee	1 940 866	1 753 611	984 376	815 782	187 255	24 356	36 081	228 343	3	12
Texas	5 988 883	5 417 527	2 995 410	2 482 127	571 356	95 453	83 624	622 243	4	6
Utah	899 015	784 428	481 882	313 840	^s 114 587	10 966	22 756	101 371	10	22
Vermont	149 893	138 002	84 157	55 013	11 891	2 677	3 065	21 913	7	14
Virginia	2 109 902	1 966 871	1 138 711	863 964	143 031	28 860	38 591	243 246	3	7
Washington	1 894 359	1 760 303	1 114 906	693 627	134 056	37 110	31 094	223 032	3	8
West Virginia	307 942	292 185	155 652	138 747	15 757	3 565	^s 8 241	41 023	7	43
Wisconsin	2 108 422	1 939 963	1 241 173	740 090	168 459	38 101	38 659	280 630	2	8
Wyoming	130 175	117 487	69 403	52 717	12 688	2 378	3 214	25 261	11	28

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
235110, PLUMBING, HEATING, & AIR-CONDITIONING CONTRACTORS			235110, PLUMBING, HEATING, & AIR-CONDITIONING CONTRACTORS—Con.		
Number of establishments in business during year	84 876	Z	Selected costs	41 850 632	1
Number of proprietors and working partners	28 011	2	Cost of materials, components, and supplies	31 879 484	1
Total number of employees	788 930	1	Cost of construction work subcontracted out to others	8 833 796	2
Number of construction workers in March	575 724	1	Cost of selected power, fuels, and lubricants	1 137 354	1
Number of construction workers in May	594 608	1	Cost of electricity	193 364	2
Number of construction workers in August	622 656	1	Cost of natural gas and manufactured gas	54 978	2
Number of construction workers in November	606 774	1	Cost of gasoline and diesel fuel	850 725	1
Average number of construction workers	599 940	1	Cost of on-highway use of gasoline and diesel fuel	762 418	1
Number of other employees in March	190 023	1	Cost of off-highway use of gasoline and diesel fuel	88 307	3
Number of other employees in May	187 368	1	Cost of all other fuels and lubricants	38 287	4
Number of other employees in August	189 183	1	Rental cost for machinery, equipment, and buildings	1 315 324	1
Number of other employees in November	189 386	1	Rental cost for machinery and equipment	647 653	1
Average number of other employees	188 990	1	Rental cost for buildings	667 671	2
Payroll, all employees	25 720 160	1	Selected purchased services	1 401 114	1
Payroll, construction workers	18 279 714	1	Purchased communication services	678 117	1
Payroll, other employees	7 440 445	1	Cost of repairs to buildings and other structures	120 064	3
First-quarter payroll, all employees	5 792 535	1	Cost of repairs to machinery and equipment	602 933	2
Fringe benefits, all employees	6 359 989	1	Value of construction work	87 330 176	1
Legally required expenditures	3 507 174	1	Value of construction work on government owned projects ..	15 770 702	2
Voluntary expenditures	2 852 815	1	Value of construction work on federally owned projects ..	3 966 296	3
Value of business done	88 427 440	1	Value of construction work on state and locally owned projects	11 804 406	2
Value of construction work	87 330 176	1	Value of construction work on privately owned projects	71 559 472	1
Value of construction work subcontracted in from others ..	46 546 320	1	Beginning-of-year gross book value of depreciable assets	8 911 646	1
Other business receipts	1 097 264	5	Capital expenditures, other than land	1 361 596	1
Net value of construction	78 496 384	1	Retirements and disposition of depreciable assets	381 382	3
Value added	46 576 808	1	End-of-year gross book value of depreciable assets	9 891 859	1
			Depreciation charges during year	1 167 645	1
			Number of establishments with inventories	40 497	1
			Value of construction work for establishments with inventories ..	60 654 116	1
			End of 1997, inventories of materials and supplies	1 475 810	2
			End of 1996, inventories of materials and supplies	1 433 171	2
			Number of establishments with no inventories	21 281	2
			Value of construction work for establishments with no inventories	15 303 367	2
			Number of establishments not reporting inventories	23 098	2
			Value of construction work for establishments not reporting inventories	11 372 695	2

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235110, PLUMBING, HEATING, & AIR-CONDITIONING CONTRACTORS											
Total	84 876	788 930	25 720 160	88 427 440	87 330 176	78 496 384	46 576 808	33 016 838	8 833 796	1	1
Establishments with 1 to 4 employees	48 446	95 210	1 907 896	9 114 267	8 999 314	8 641 380	4 812 287	3 944 047	357 934	1	2
Establishments with 5 to 9 employees	17 814	115 416	2 956 310	10 566 375	10 409 636	9 856 687	5 808 711	4 204 716	552 949	2	3
Establishments with 10 to 19 employees	10 123	135 377	4 072 951	13 699 807	13 563 026	12 626 148	7 482 611	5 280 318	936 879	3	3
Establishments with 20 to 49 employees	6 214	182 117	6 202 941	20 916 294	20 653 482	18 367 322	10 920 422	7 709 713	2 286 160	2	2
Establishments with 50 to 99 employees	1 481	99 297	3 805 513	12 626 972	12 424 539	10 795 713	6 546 985	4 451 161	1 628 827	1	1
Establishments with 100 to 249 employees	633	91 361	3 694 907	12 021 869	11 887 726	10 085 222	6 234 630	3 984 735	1 802 504	3	2
Establishments with 250 to 499 employees	128	43 466	1 796 351	5 820 973	5 742 832	4 893 965	2 917 833	2 054 273	848 867	Z	Z
Establishments with 500 to 999 employees	33	21 331	926 139	2 770 504	2 759 241	2 420 922	1 462 806	969 379	338 319	Z	Z
Establishments with 1,000 employees or more	4	5 356	357 153	890 381	890 381	809 023	390 526	418 497	81 358	Z	Z

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235110, PLUMBING, HEATING, & AIR-CONDITIONING CONTRACTORS											
Total	84 876	788 930	25 720 160	88 427 440	87 330 176	78 496 384	46 576 808	33 016 838	8 833 796	1	1
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	S	S	S	S	S	S	S	S	15 588	S	S
Establishments with value of business done \$100,000 to \$249,999	22 907	50 561	877 979	3 834 415	3 796 025	3 677 926	2 082 751	1 633 565	118 099	3	2
Establishments with value of business done \$250,000 to \$499,999	18 297	76 760	1 695 278	6 463 142	6 376 684	6 171 203	3 529 435	2 728 226	205 481	3	3
Establishments with value of business done \$500,000 to \$999,999	12 559	98 481	2 542 303	8 801 000	8 703 083	8 406 006	5 042 852	3 461 071	297 077	3	3
Establishments with value of business done \$1,000,000 to \$2,499,999	9 998	152 520	4 646 371	15 227 328	15 024 674	14 087 413	8 311 336	5 978 732	937 261	3	3
Establishments with value of business done \$2,500,000 to \$4,999,999	3 712	112 192	3 905 131	12 740 950	12 575 622	11 486 437	6 875 585	4 776 182	1 089 184	3	3
Establishments with value of business done \$5,000,000 to \$9,999,999	1 847	95 430	3 652 842	12 695 014	12 517 114	10 840 192	6 424 966	4 593 126	1 676 922	2	2
Establishments with value of business done \$10,000,000 or more	1 231	187 209	8 205 552	27 881 188	27 558 104	23 066 850	13 862 761	9 527 173	4 491 255	1	1

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
235110, PLUMBING, HEATING, & AIR-CONDITIONING CONTRACTORS								
Total	87 330 176	44 209 609	22 527 386	20 282 213	1	1	1	1
Building construction, total	82 150 114	42 071 087	21 241 073	18 837 953	1	1	1	1
Single-family houses, detached and attached	23 203 689	11 823 423	4 469 433	6 910 833	2	3	3	2
Single-family houses, detached	19 889 441	10 064 325	3 933 310	5 891 806	2	3	3	2
Single-family houses, attached	3 314 248	1 759 098	536 123	1 019 027	4	6	6	5
Apartment buildings, apartment type condominiums and cooperatives	4 514 461	2 504 192	708 788	1 301 481	3	5	5	5
Manufacturing and light industrial buildings	12 568 213	5 666 283	4 140 145	2 761 785	1	2	2	3
Manufacturing and light industrial warehouses	2 392 515	1 301 973	635 030	455 512	3	4	5	4
Hotels and motels	2 190 177	1 482 972	384 638	322 567	3	4	5	7
Office buildings	9 473 317	4 457 351	2 878 779	2 137 187	1	2	2	3
All other commercial buildings, nec	7 488 174	3 605 581	1 759 896	2 122 697	2	3	3	4
Commercial warehouses	1 722 421	1 021 554	417 287	283 581	6	6	14	6
Religious buildings	1 248 741	557 106	344 208	347 427	4	7	6	4
Educational buildings	7 135 443	3 834 131	2 472 947	828 365	3	3	4	5
Health care and institutional buildings	5 528 991	2 682 837	2 114 601	731 552	2	2	3	4
Public safety buildings	1 420 400	906 118	370 057	144 225	3	4	6	5
All other nonresidential buildings	3 263 572	2 227 567	545 265	490 740	4	5	6	8
Nonbuilding construction, total	4 869 095	2 138 522	1 286 313	1 444 260	3	3	3	9
Sewers, water mains, and related facilities	1 215 373	588 722	241 183	385 468	6	6	9	9
Sewers, sewer lines, septic systems, and related facilities	705 618	342 178	147 219	216 221	7	7	11	11
Water mains and related facilities	509 754	246 544	93 964	169 247	6	6	8	13
Blast furnaces, petroleum refineries, chemical complexes, etc	997 125	284 193	361 978	350 954	1	2	1	3
Sewage and water treatment plants	866 571	527 804	261 520	77 247	4	3	9	13
Other nonbuilding construction, nec	1 790 026	737 804	421 632	630 590	7	5	4	19
Construction work, nsk	310 871	X	X	X	8	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—			
				For all types	For specialized type				B	D	H	
												A
235110, PLUMBING, HEATING, & AIR-CONDITIONING CONTRACTORS												
Total	84 876	788 930	25 720 160	87 330 176	X	78 496 384	46 576 808	8 833 796	1	1	2	
Establishments not specializing ..	22 295	302 187	10 517 994	35 360 924	X	31 094 914	18 649 939	4 266 010	1	1	2	
Establishments specializing 51 percent or more	62 581	486 743	15 202 167	51 969 258	42 620 034	47 401 471	27 926 871	4 567 787	1	1	2	
Single-family houses, detached and attached												
All establishments specializing	43 089	235 446	5 910 872	21 067 834	17 636 676	20 438 276	11 479 047	629 557	2	2	7	
Specialization 100 percent	14 956	62 901	1 490 236	5 822 332	5 822 332	5 622 176	3 080 052	200 156	4	5	11	
Specialization 90 to 99 percent ...	8 864	47 348	1 200 816	4 341 835	4 060 097	4 208 249	2 279 543	133 586	5	5	18	
Specialization 80 to 89 percent ...	6 534	38 308	944 847	3 377 574	2 779 304	3 282 889	1 857 205	94 684	5	6	25	
Specialization 70 to 79 percent ...	6 729	41 686	1 031 980	3 478 565	2 538 139	3 390 073	1 997 856	88 493	5	5	13	
Specialization 60 to 69 percent ...	4 703	33 575	920 478	3 028 071	1 872 540	2 937 310	1 637 439	90 760	9	10	13	
Specialization 51 to 59 percent ...	1 304	11 629	322 515	1 019 457	564 265	997 579	626 952	21 878	12	11	13	
Apartment buildings, apartment type condominiums and cooperatives												
All establishments specializing	1 985	19 438	565 774	2 106 281	1 647 712	1 989 883	1 085 542	116 398	8	7	11	
Specialization 100 percent	499	3 511	107 858	404 142	404 142	369 051	199 808	35 092	15	14	19	
Specialization 90 to 99 percent ...	175	2 549	79 570	326 883	305 686	312 013	174 755	14 870	17	18	36	
Specialization 80 to 89 percent ...	502	3 807	93 175	337 011	274 188	326 416	178 690	10 594	22	22	32	
Specialization 70 to 79 percent ...	359	3 429	88 470	351 065	252 016	332 012	174 778	⁹ 19 053	19	19	41	
Specialization 60 to 69 percent ...	345	4 139	131 117	454 726	284 368	434 389	241 800	20 337	18	17	9	
Specialization 51 to 59 percent ...	105	2 003	65 584	232 454	127 310	216 002	115 710	16 452	20	20	15	
Manufacturing and light industrial buildings												
All establishments specializing	2 761	67 091	2 839 636	8 659 603	7 147 740	7 573 499	4 801 249	1 086 104	3	2	2	
Specialization 100 percent	S	24 166	983 179	2 943 807	2 943 807	2 601 852	1 594 532	341 955	5	5	7	
Specialization 90 to 99 percent ...	S	9 221	418 320	1 168 321	1 110 248	1 036 270	702 385	132 051	6	5	3	
Specialization 80 to 89 percent ...	209	5 940	293 608	907 421	738 768	786 129	509 140	121 292	7	6	3	
Specialization 70 to 79 percent ...	368	10 176	426 235	1 340 845	987 104	1 140 161	732 384	200 683	5	3	2	
Specialization 60 to 69 percent ...	387	11 063	441 850	1 429 048	888 845	1 252 156	795 551	176 892	7	5	3	
Specialization 51 to 59 percent ...	217	6 525	276 444	870 160	478 968	756 930	467 257	113 231	6	5	7	
Manufacturing and light industrial warehouses												
All establishments specializing	220	3 713	152 434	490 374	428 631	428 141	251 662	62 233	12	10	11	
Specialization 100 percent	153	2 159	86 818	272 077	272 077	234 850	132 833	37 226	19	17	19	
Specialization 90 to 99 percent ...	5	231	8 467	22 354	21 170	20 802	14 249	1 552	Z	Z	Z	
Specialization 80 to 89 percent ...	⁴ 3	S	S	33 268	26 614	31 532	S	S	S	S	33	
Specialization 70 to 79 percent ...	10	414	18 978	63 152	46 826	51 891	29 771	11 261	1	5	7	
Specialization 60 to 69 percent ...	² 8	635	29 676	99 523	61 943	89 065	58 910	10 458	6	9	3	
Hotels and motels												
All establishments specializing	266	5 302	207 702	677 628	549 369	613 843	342 859	63 785	11	9	12	
Specialization 100 percent	⁴ 9	⁷ 18	¹ 7 291	⁵ 4 910	⁵ 4 910	⁵ 2 479	³ 2 989	2 431	50	48	14	
Specialization 90 to 99 percent ...	⁴ 3	625	24 268	70 957	67 215	67 301	37 045	3 656	35	29	16	
Specialization 80 to 89 percent ...	⁴ 3	1 718	68 341	241 537	208 976	215 109	117 720	26 428	13	8	8	
Specialization 70 to 79 percent ...	⁸ 9	1 698	70 186	226 947	164 034	204 812	S	22 135	15	10	Z	
Specialization 60 to 69 percent ...	¹ 6	⁴ 64	² 5 634	⁷ 6 446	⁵ 0 477	⁶ 7 311	⁴ 5 347	S	44	56	S	
Specialization 51 to 59 percent ...	S	S	S	S	S	S	S	S	S	S	-	
Office buildings												
All establishments specializing	1 935	29 969	1 240 083	4 179 915	3 159 233	3 559 015	2 255 082	620 899	4	3	3	
Specialization 100 percent	583	4 768	187 264	651 995	651 995	564 779	349 099	87 216	12	7	5	
Specialization 90 to 99 percent ...	164	2 532	122 850	486 699	453 777	365 240	205 945	121 460	9	8	4	
Specialization 80 to 89 percent ...	174	3 500	152 430	533 582	442 988	456 825	290 682	76 756	7	7	13	
Specialization 70 to 79 percent ...	606	8 234	332 100	1 007 736	735 167	876 519	585 905	131 217	8	7	7	
Specialization 60 to 69 percent ...	265	5 721	232 746	814 380	501 214	700 039	437 203	114 341	9	8	9	
Specialization 51 to 59 percent ...	142	5 214	212 695	685 523	374 092	595 613	386 248	89 909	8	6	9	

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997—Con.

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
235110, PLUMBING, HEATING, & AIR-CONDITIONING CONTRACTORS—Con.											
All other commercial buildings, nec											
All establishments specializing	4 771	37 566	1 179 139	3 938 005	3 324 304	3 605 003	2 133 577	333 002	5	5	9
Specialization 100 percent	2 019	15 451	502 686	1 726 732	1 726 732	1 555 604	911 813	171 127	8	8	15
Specialization 90 to 99 percent ...	611	4 027	119 951	390 011	361 347	366 011	225 138	24 000	15	16	25
Specialization 80 to 89 percent ...	492	3 839	119 660	377 650	310 408	359 358	209 744	18 292	14	13	7
Specialization 70 to 79 percent ...	578	4 377	139 147	475 535	350 548	426 032	257 178	49 503	14	12	25
Specialization 60 to 69 percent ...	787	7 068	213 834	702 676	431 981	653 583	381 158	49 093	13	12	18
Specialization 51 to 59 percent ...	283	2 804	83 861	265 402	143 288	244 415	148 546	20 987	20	19	20
Commercial warehouses											
All establishments specializing	223	2 909	124 407	479 877	397 167	445 015	222 563	34 862	16	21	14
Specialization 100 percent	^{§62}	966	^{§41} 381	^{§203} 734	^{§203} 734	^{§192} 393	^{§84} 076	^{§11} 341	36	46	40
Specialization 90 to 99 percent ...	^{§47}	347	^{§17} 394	^{§62} 281	^{§58} 947	^{§60} 135	^{§32} 005	^{§2} 146	39	55	66
Specialization 80 to 89 percent ...	S	183	8 316	23 712	19 025	22 993	15 240	719	35	29	12
Specialization 70 to 79 percent ...	S	^{§283}	10 034	^{§27} 931	^{§19} 813	^{§23} 940	^{§16} 496	3 991	61	46	10
Specialization 60 to 69 percent ...	^{§47}	766	33 509	123 143	75 359	108 219	53 511	14 924	14	7	1
Specialization 51 to 59 percent ...	^{§12}	^{§364}	^{§13} 774	^{§39} 077	^{§20} 290	^{§37} 335	^{§21} 236	1 742	56	46	4
Educational buildings											
All establishments specializing	1 335	24 591	866 065	3 516 761	2 526 712	2 767 545	1 541 941	749 216	6	5	8
Specialization 100 percent	202	1 865	57 390	253 729	253 729	201 528	105 531	52 201	24	26	31
Specialization 90 to 99 percent ...	173	1 996	73 049	362 192	334 362	262 648	129 619	^{§99} 544	17	29	45
Specialization 80 to 89 percent ...	176	3 102	111 965	464 497	383 070	370 798	204 395	93 699	10	12	12
Specialization 70 to 79 percent ...	269	5 581	186 962	743 950	549 037	590 673	328 070	153 276	15	12	14
Specialization 60 to 69 percent ...	371	8 358	298 833	1 145 562	708 123	904 822	521 407	240 740	10	9	14
Specialization 51 to 59 percent ...	144	3 689	137 866	546 831	298 391	437 076	252 919	109 755	12	8	6
Health care and institutional buildings											
All establishments specializing	452	10 496	415 649	1 520 541	1 077 209	1 177 014	726 859	343 528	7	6	9
Specialization 100 percent	77	1 168	40 586	164 887	164 887	114 569	65 756	50 318	27	17	9
Specialization 90 to 99 percent ...	^{§56}	798	33 140	103 376	94 214	84 445	56 489	18 931	28	25	15
Specialization 80 to 89 percent ...	^{§63}	1 063	40 607	128 447	105 644	110 390	68 863	18 057	27	25	29
Specialization 70 to 79 percent ...	78	2 070	86 221	290 621	210 389	237 510	145 823	53 111	6	6	3
Specialization 60 to 69 percent ...	140	4 021	155 881	564 027	354 301	444 963	282 790	119 064	14	11	7
Specialization 51 to 59 percent ...	^{§37}	1 377	59 215	269 183	147 773	185 136	107 138	84 047	12	16	33
Sewers, water mains, and related facilities											
All establishments specializing	1 043	4 830	108 907	362 688	313 222	336 185	200 982	§26 503	16	16	48
Specialization 100 percent	717	2 085	44 444	166 650	166 650	159 096	86 212	7 554	18	15	16
Specialization 90 to 99 percent ...	^{§77}	887	18 943	43 712	40 147	42 493	27 351	1 218	33	36	12
Specialization 80 to 89 percent ...	S	^{§593}	^{§15} 486	^{§45} 788	^{§38} 519	^{§44} 590	^{§28} 500	1 197	46	48	37
Specialization 70 to 79 percent ...	^{§60}	S	S	S	S	S	S	S	S	S	S
Specialization 60 to 69 percent ...	^{§45}	241	6 702	23 375	14 694	15 297	15 297	D	18	21	D
Specialization 51 to 59 percent ...	S	S	10 131	34 563	19 061	D	26 482	D	S	31	D
Blast furnaces, petroleum refineries, chemical complexes, etc											
All establishments specializing	164	7 339	324 733	762 232	607 395	671 687	542 412	90 545	2	2	Z
Specialization 100 percent	^{§68}	1 560	51 889	128 290	128 290	114 841	91 006	13 449	4	3	Z
Specialization 90 to 99 percent ...	^{§37}	2 101	94 808	213 781	202 013	190 659	158 347	23 122	5	3	1
Specialization 80 to 89 percent ...	S	865	42 908	98 963	81 688	84 860	67 827	14 103	11	7	1
Specialization 70 to 79 percent ...	4	844	43 666	113 048	79 824	101 200	82 803	11 848	Z	Z	Z
Specialization 60 to 69 percent ...	S	249	11 116	29 031	17 860	26 509	18 765	2 522	35	30	Z
Specialization 51 to 59 percent ...	6	1 720	80 345	179 120	97 720	153 618	123 665	25 502	Z	Z	Z

Table 9. Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
235110, PLUMBING, HEATING, & AIR-CONDITIONING CONTRACTORS		
Total	88 427 440	1
Special trade contractors, total	86 186 373	1
Building sprinkler system installation contractor	4 084 354	3
Electric power installation and service contractor, including lighting	962 464	4
Energy management contractor	647 181	9
Environmental control systems installation and service contractor	1 526 112	5
Heating, ventilation and air-conditioning contractor (HVAC)	32 353 064	1
Lawn sprinkler installation contractor	1 100 932	9
Mechanical contractor	16 201 863	2
Plumbing contractor	21 804 226	2
Refrigeration contractor	2 179 294	6
Septic system installation contractor	713 187	11
Sheet metal contractor, except HVAC and plumbing	1 157 849	3
Steamfitting and piping contractor	3 455 847	2
Other construction activities, nec	1 117 894	4
Other business activities secondary to construction activities, total	1 086 462	5
Other business activities, secondary to construction activities, nec	605 088	5
Retail trade, secondary to construction activities	481 375	9
Kind of business activity, nsk	36 715	23

Table 10. Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
235110, PLUMBING, HEATING, & AIR-CONDITIONING CONTRACTORS											
Total	84 876	788 930	25 720 160	87 330 176	X	78 496 384	46 576 808	8 833 796	1	1	2
Establishments not specializing	7 568	116 424	4 244 498	14 269 278	X	12 082 190	7 433 561	2 187 088	2	2	3
Establishments specializing 51 percent or more	77 308	672 506	21 475 663	73 060 904	66 102 848	66 414 196	39 143 250	6 646 708	1	1	2
Building sprinkler system installation contractor											
All establishments specializing	1 897	35 921	1 295 558	3 725 654	3 656 247	3 537 754	2 274 539	187 899	4	4	10
Specialization 100 percent	1 698	30 514	1 079 911	3 156 757	3 156 757	3 001 023	1 890 507	155 734	5	4	11
Specialization 90 to 99 percent	137	3 672	146 983	392 470	374 984	371 032	262 981	21 439	11	10	26
Specialization 80 to 89 percent	S	533	21 641	52 657	43 969	47 529	38 655	⁵ 128	22	12	45
Specialization 70 to 79 percent	S	467	16 392	43 171	32 873	41 586	25 037	1 585	30	20	5
Specialization 60 to 69 percent	8	S	S	S	S	S	S	1 118	S	S	Z
Specialization 51 to 59 percent	5	311	14 137	35 485	18 712	32 589	25 525	2 896	Z	Z	Z
Energy management contractor											
All establishments specializing	372	3 263	117 411	390 616	350 050	328 695	200 764	61 921	17	15	8
Specialization 100 percent	283	S	73 702	268 498	268 498	227 607	137 571	40 891	S	21	12
Specialization 90 to 99 percent	5	D	D	D	D	11 784	D	D	D	D	D
Specialization 80 to 89 percent	1	D	D	D	D	D	D	D	D	D	D
Specialization 70 to 79 percent	³⁴	²⁷⁹	⁹ 496	²⁴ 344	¹⁷ 358	²⁰ 243	¹⁰ 724	4 102	49	44	19
Specialization 60 to 69 percent	²⁰	⁴⁰³	11 812	40 061	26 216	33 116	21 720	6 945	52	22	8
Specialization 51 to 59 percent	²⁹	310	14 828	38 297	20 546	D	23 144	D	6	1	D
Environmental control systems installation and service contractor											
All establishments specializing	1 134	9 931	365 417	1 146 159	992 594	1 038 193	676 772	107 966	8	7	10
Specialization 100 percent	692	4 425	148 875	519 278	519 278	456 834	278 703	62 444	11	9	15
Specialization 90 to 99 percent	137	1 011	38 566	110 868	105 039	104 483	66 246	6 385	15	13	5
Specialization 80 to 89 percent	77	2 001	82 211	254 748	214 892	237 272	157 652	17 477	19	17	16
Specialization 70 to 79 percent	⁴⁶	320	16 723	35 399	25 615	32 813	24 734	2 586	29	21	39
Specialization 60 to 69 percent	100	1 041	38 764	97 064	60 347	91 535	64 498	⁵ 529	39	32	46
Specialization 51 to 59 percent	⁸¹	1 132	40 279	128 801	67 424	115 257	84 940	13 545	27	24	27
Heating, ventilation and air-conditioning contractor (HVAC)											
All establishments specializing	30 218	275 346	8 635 062	30 006 901	27 126 417	27 656 729	15 972 690	2 350 172	2	2	3
Specialization 100 percent	20 510	169 554	5 209 577	18 677 950	18 677 950	17 245 826	9 731 097	1 432 124	2	2	4
Specialization 90 to 99 percent	2 594	25 989	827 776	2 788 619	2 625 316	2 616 170	1 482 381	172 448	6	5	5
Specialization 80 to 89 percent	2 301	21 219	675 651	2 272 585	1 870 116	2 092 323	1 217 131	180 263	6	7	22
Specialization 70 to 79 percent	1 855	18 424	594 969	1 970 099	1 436 733	1 809 450	1 099 174	160 649	7	6	7
Specialization 60 to 69 percent	1 929	22 973	759 380	2 468 793	1 535 211	2 255 277	1 449 275	213 516	6	5	4
Specialization 51 to 59 percent	1 030	17 187	567 709	1 828 855	981 090	1 637 683	993 631	191 172	8	7	10
Lawn sprinkler installation contractor											
All establishments specializing	2 595	14 924	314 220	1 039 436	975 490	996 858	635 781	42 578	9	9	17
Specialization 100 percent	2 046	11 173	240 515	806 749	806 749	779 135	485 321	27 614	11	11	19
Specialization 90 to 99 percent	200	1 179	17 775	60 775	57 743	60 009	³¹ 361	S	35	32	S
Specialization 80 to 89 percent	⁵⁵	⁴²⁷	¹⁰ 350	37 232	31 040	³¹ 672	²² 294	5 560	48	35	7
Specialization 70 to 79 percent	⁹³	³²⁷	⁶ 596	²³ 771	¹⁶ 780	²³ 032	²¹ 305	⁷³⁹	62	56	46
Specialization 60 to 69 percent	97	⁷¹⁶	¹⁵ 667	⁴⁹ 528	²⁹ 829	⁴³ 748	³² 261	S	41	52	S
Specialization 51 to 59 percent	¹⁰⁴	1 102	23 316	61 380	³³ 350	⁵⁹ 262	43 240	2 118	38	39	32
Mechanical contractor											
All establishments specializing	4 145	98 236	3 850 004	13 517 703	12 301 056	11 166 916	6 560 632	2 350 787	2	2	2
Specialization 100 percent	3 124	61 884	2 427 352	8 664 519	8 664 519	7 243 400	4 108 815	1 421 119	3	3	4
Specialization 90 to 99 percent	188	7 495	304 684	1 002 030	945 847	781 918	470 352	220 112	5	3	1
Specialization 80 to 89 percent	1 819	11 478	307 621	1 020 663	845 637	861 998	548 589	158 665	7	6	4
Specialization 70 to 79 percent	226	8 064	320 978	1 112 735	817 646	890 414	562 415	222 322	5	5	5
Specialization 60 to 69 percent	255	8 698	322 235	1 126 844	704 815	916 787	569 559	210 057	6	5	6
Specialization 51 to 59 percent	138	4 004	167 133	590 912	322 593	472 399	300 902	118 513	4	3	2
Plumbing contractor											
All establishments specializing	32 957	199 123	5 530 337	19 055 078	17 154 806	17 895 768	10 446 533	1 159 310	2	2	7
Specialization 100 percent	22 792	123 157	3 354 620	11 581 334	11 581 334	11 046 843	6 360 206	534 491	3	3	6
Specialization 90 to 99 percent	2 676	20 233	563 507	1 858 286	1 760 169	1 785 497	1 097 118	72 789	8	8	9
Specialization 80 to 89 percent	1 819	11 478	329 539	1 092 955	904 894	1 031 962	623 386	60 993	10	10	19
Specialization 70 to 79 percent	2 168	16 350	486 301	1 656 162	1 207 378	1 472 995	866 313	183 167	8	9	24
Specialization 60 to 69 percent	2 149	17 341	501 672	1 824 289	1 137 114	1 634 562	969 079	189 727	8	9	25
Specialization 51 to 59 percent	1 353	10 563	294 699	1 042 051	563 917	923 908	530 431	118 143	9	10	22

Table 10. **Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997—Con.**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
235110, PLUMBING, HEATING, & AIR-CONDITIONING CONTRACTORS—Con.											
Refrigeration contractor											
All establishments specializing	1 491	11 733	428 047	1 512 831	1 345 049	1 421 544	767 116	91 287	9	9	8
Specialization 100 percent	667	5 382	199 913	755 862	755 862	707 241	370 231	48 621	13	16	14
Specialization 90 to 99 percent	213	1 961	76 253	270 100	249 732	254 315	130 417	15 785	23	21	5
Specialization 80 to 89 percent	128	789	35 497	112 752	93 138	108 353	62 863	4 399	25	31	29
Specialization 70 to 79 percent	194	1 331	43 329	152 884	114 217	144 458	76 844	8 426	21	19	9
Specialization 60 to 69 percent	178	1 165	36 605	124 152	78 385	116 764	54 880	7 389	21	18	4
Specialization 51 to 59 percent	111	1 105	36 451	97 079	53 714	90 412	71 881	6 667	30	26	8
Septic system installation contractor											
All establishments specializing	1 548	6 136	133 629	581 354	535 009	562 315	344 520	19 038	15	13	20
Specialization 100 percent	1 123	4 275	95 793	433 443	433 443	419 498	247 303	13 945	18	16	25
Specialization 90 to 99 percent	136	^s 386	7 035	38 197	35 464	37 836	22 145	^s 361	42	38	74
Specialization 80 to 89 percent	1	D	D	D	D	D	D	D	D	D	D
Specialization 70 to 79 percent	^s 65	D	D	D	D	D	D	D	D	D	D
Specialization 60 to 69 percent	109	466	7 960	31 648	19 962	29 678	18 968	^s 1 970	33	32	67
Specialization 51 to 59 percent	112	^s 795	^s 16 544	^s 58 795	^s 31 969	^s 57 171	^s 43 788	1 624	51	42	37
Steamfitting and piping contractor											
All establishments specializing	599	17 395	795 176	2 044 284	1 625 241	1 772 255	1 238 095	272 029	4	3	4
Specialization 100 percent	321	5 794	232 015	613 988	613 988	550 395	384 366	63 593	7	7	4
Specialization 90 to 99 percent	40	1 761	72 062	191 131	180 289	162 346	121 154	28 785	18	13	7
Specialization 80 to 89 percent	146	1 829	99 280	271 786	229 334	230 883	142 801	40 903	8	4	2
Specialization 70 to 79 percent	16	1 188	56 402	148 405	107 472	117 647	77 318	30 758	Z	Z	Z
Specialization 60 to 69 percent	59	5 326	246 671	601 171	371 835	505 176	370 163	95 995	6	5	9
Specialization 51 to 59 percent	^s 17	1 497	88 747	217 803	122 323	205 809	142 294	11 994	10	10	21

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
235110, PLUMBING, HEATING, & AIR-CONDITIONING CONTRACTORS										
United States	87 330 176	53 447	62 953 269	10 249	6 230 189	31 307	18 146 724	1	1	2
Alabama	1 212 824	869	836 371	178	113 147	543	263 306	4	6	4
Alaska	263 105	126	163 229	63	72 338	⁶¹ 12	²⁷ 538	11	13	26
Arizona	1 691 579	855	1 166 558	120	150 061	490	374 960	5	6	3
Arkansas	583 320	532	377 423	126	54 891	428	151 006	5	10	24
California	7 608 021	4 263	5 694 694	73	51 799	2 512	1 861 528	2	2	1
Colorado	1 704 733	1 180	1 334 950	64	109 085	475	260 698	3	5	5
Connecticut	1 165 659	750	704 586	239	205 174	505	255 899	4	6	8
Delaware	381 045	193	296 042	164	59 836	95	25 167	6	7	25
District of Columbia	243 222	19	33 168	366	207 933	12	2 121	4	5	5
Florida	4 308 487	2 840	3 165 808	194	127 204	1 955	1 015 476	2	4	7
Georgia	2 633 033	1 643	1 845 151	201	207 653	926	580 228	3	5	3
Hawaii *	318 582	162	249 350	³⁰ 131	56 373	81	12 858	7	6	23
Idaho	558 983	407	428 009	131	65 029	138	65 945	11	16	6
Illinois	4 818 807	2 320	3 471 120	305	229 951	1 436	1 117 735	5	7	3
Indiana	2 266 658	1 248	1 779 631	302	96 246	726	390 781	2	4	6
Iowa	957 581	701	776 392	179	84 553	237	96 635	5	6	3
Kansas	926 158	626	597 101	287	135 331	439	193 726	6	10	11
Kentucky	1 186 637	676	773 268	308	161 796	502	251 573	4	7	4
Louisiana	970 793	720	633 430	130	46 512	480	290 851	6	9	12
Maine	301 183	407	204 735	61	38 186	145	58 262	6	10	21
Maryland	2 288 104	1 283	1 469 496	356	159 161	751	659 447	3	4	6
Massachusetts	2 160 185	1 345	1 619 695	300	129 240	827	411 251	5	7	9
Michigan	3 456 822	2 052	2 551 720	177	153 708	1 135	751 394	2	3	3
Minnesota	1 725 955	898	1 336 107	173	87 539	502	302 309	3	4	13
Mississippi	587 000	435	376 758	182	116 166	310	94 077	5	9	6
Missouri	1 819 071	1 114	1 273 857	243	164 898	690	380 316	2	4	8
Montana	259 858	276	199 069	24	21 588	137	39 200	10	15	7
Nebraska	574 561	464	460 077	86	37 930	196	76 554	4	8	2
Nevada	1 025 747	312	734 781	116	145 721	203	145 245	3	5	2
New Hampshire	311 450	400	240 140	133	28 255	⁶⁰ 43	43 055	10	13	5
New Jersey	2 720 387	2 106	1 878 570	375	158 850	1 214	682 967	5	6	9
New Mexico	418 234	343	261 729	⁶³ 34	480	257	122 025	13	19	6
New York	5 170 488	2 925	3 560 412	430	166 904	2 306	1 443 173	2	3	15
North Carolina	2 904 632	1 914	2 054 022	301	218 687	1 142	631 923	3	4	5
North Dakota	202 035	184	183 215	⁷¹ 10	0 011	⁶⁴ 8	8 810	9	10	14
Ohio	3 791 102	2 354	3 120 861	361	126 449	975	543 792	2	3	6
Oklahoma	767 332	649	519 260	115	67 872	507	180 200	8	11	8
Oregon	1 415 693	762	1 041 980	180	223 093	317	150 620	3	5	7
Pennsylvania	4 001 097	2 117	2 783 929	534	259 777	1 428	957 391	2	3	21
Rhode Island	233 483	330	209 086	134	16 423	S	7 973	7	7	27
South Carolina	1 344 962	825	833 779	389	239 178	526	272 005	4	7	11
South Dakota	184 150	178	104 590	95	24 215	133	⁵⁵ 345	7	14	4
Tennessee	1 847 442	910	1 252 077	192	135 446	701	459 919	4	7	6
Texas	6 039 938	3 187	4 459 631	209	260 830	2 329	1 319 477	4	5	6
Utah	910 020	666	752 904	⁶⁷ 34	992	169	122 125	13	17	10
Vermont	148 392	140	106 896	⁵⁹ 12	175	105	²⁹ 321	7	11	13
Virginia	2 439 006	1 605	1 642 339	561	478 883	785	317 784	3	4	3
Washington	1 978 389	1 097	1 315 610	298	300 469	649	362 310	7	5	39
West Virginia	378 218	378	242 699	271	92 397	118	⁴³ 123	6	12	4
Wisconsin	1 979 738	1 469	1 731 553	131	28 614	512	219 572	3	4	10
Wyoming	146 278	193	105 408	101	23 141	51	17 729	11	15	26

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **All other nonresidential buildings.** Includes nonresidential buildings that are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military non-building such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Painting and Wall Covering Contractors

1997

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EC97C-2352A

1997 Economic Census

Construction

Industry Series



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
235210	Painting & wall covering contractors	37 480	195 331	4 543 495	13 015 683	12 049 579	8 787 438	3 313 756	306 388
172100	Painting & paper hanging special trade contractors	36 339	191 073	4 472 285	12 742 031	11 809 982	8 613 785	3 247 369	300 571
179910	Special trade contractors, n.e.c. (pt)	1 141	4 258	71 211	273 652	239 596	173 654	66 387	5 817

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers	
235210, PAINTING & WALL COVERING CONTRACTORS										
United States	37 480	195 331	160 740	142 809	162 077	179 422	158 651	4 543 495	3 430 534	1
Alabama	460	2 966	2 399	2 397	2 559	2 327	2 315	63 169	44 606	8
Alaska	113	449	336	251	382	448	263	10 707	7 413	10
Arizona	648	4 610	3 811	3 608	3 623	4 076	3 935	90 607	71 214	7
Arkansas	204	1 073	867	808	1 095	859	706	22 623	17 426	14
California	4 402	25 146	21 153	19 239	20 894	22 780	21 699	603 588	470 623	2
Colorado	915	4 166	3 605	3 073	3 649	4 117	3 582	86 944	67 010	6
Connecticut	586	2 262	1 685	1 191	1 750	2 109	1 689	58 176	39 481	6
Delaware	100	501	414	338	468	477	375	11 883	8 820	9
District of Columbia	16	225	186	148	166	261	168	5 511	4 273	5
Florida	2 283	11 697	9 090	8 675	9 261	9 201	9 224	234 117	158 775	3
Georgia	855	5 471	4 512	4 098	4 564	4 983	4 403	121 186	84 312	6
Hawaii *	166	1 262	986	1 034	943	1 041	928	47 794	33 441	5
Idaho	353	1 015	899	647	888	1 161	898	15 145	13 194	12
Illinois	1 597	8 007	6 394	5 534	6 532	7 329	6 180	242 033	186 741	3
Indiana	900	4 877	4 141	3 590	4 086	4 590	4 296	121 295	94 615	5
Iowa	353	1 762	1 413	1 107	1 502	1 584	1 459	32 294	25 315	8
Kansas	441	1 617	1 336	1 255	1 354	1 466	1 270	33 515	26 403	9
Kentucky	438	2 102	1 703	1 482	1 762	1 911	1 656	41 994	32 130	9
Louisiana	349	3 575	2 795	2 405	2 608	3 113	3 055	75 797	55 322	8
Maine	186	799	715	505	768	963	623	13 218	11 565	13
Maryland	875	5 052	4 109	3 697	4 134	4 364	4 239	119 772	88 416	5
Massachusetts	870	3 517	2 720	1 986	2 741	3 402	2 752	95 786	69 500	5
Michigan	1 320	6 256	5 188	4 605	5 483	6 322	4 342	154 972	115 880	7
Minnesota	624	3 365	2 779	2 248	2 756	3 365	2 748	92 750	73 422	5
Mississippi	219	1 001	801	774	714	913	804	18 400	13 681	8
Missouri	892	5 114	4 413	3 860	4 315	5 078	4 399	133 248	105 769	4
Montana	125	399	312	204	319	386	337	7 533	5 196	23
Nebraska	272	1 231	1 074	954	1 099	1 207	1 034	23 831	19 964	8
Nevada	186	1 294	1 148	994	1 171	1 334	1 093	30 124	25 255	11
New Hampshire	185	718	638	397	593	868	695	13 670	11 058	13
New Jersey	1 278	4 785	3 885	3 071	4 061	4 515	3 895	130 511	95 416	4
New Mexico	225	625	540	443	567	564	588	11 569	8 227	17
New York	2 215	10 218	8 291	6 988	8 366	10 062	7 747	273 906	202 940	5
North Carolina	1 310	6 788	5 560	5 326	5 524	5 842	5 548	134 752	98 311	5
North Dakota	95	402	310	261	278	391	309	7 736	5 700	7
Ohio	1 467	7 483	6 083	5 195	6 271	7 184	5 680	178 756	135 174	4
Oklahoma	339	1 572	1 334	1 259	1 387	1 460	1 232	27 421	21 536	10
Oregon	658	3 069	2 299	1 881	2 305	2 736	2 274	64 891	50 415	8
Pennsylvania	1 415	7 533	6 241	5 202	6 556	7 139	6 067	194 110	152 094	3
Rhode Island	263	774	565	389	587	735	550	14 132	10 760	13
South Carolina	603	2 878	2 420	2 310	2 450	2 513	2 405	51 227	37 682	7
South Dakota	115	441	401	357	412	463	373	7 058	6 057	17
Tennessee	513	2 813	2 422	2 314	2 447	2 485	2 442	62 667	45 160	6
Texas	1 871	14 567	12 195	12 422	11 705	12 401	12 251	325 079	240 675	3
Utah	339	1 673	1 509	1 388	1 448	1 729	1 472	31 250	27 296	11
Vermont	149	597	522	332	620	689	448	9 193	7 271	19
Virginia	1 349	7 309	6 107	5 497	6 333	6 488	6 110	146 748	111 832	4
Washington	1 182	5 443	4 555	3 882	4 695	5 262	4 379	135 470	105 025	4
West Virginia	92	413	303	256	288	342	324	8 931	7 182	10
Wisconsin	953	4 106	3 302	2 705	3 292	4 088	3 123	101 177	76 917	7
Wyoming	114	313	275	223	311	298	268	5 225	4 045	22

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
235210, PAINTING & WALL COVERING CONTRACTORS										
United States	13 015 683	12 049 579	8 787 438	3 313 756	966 104	241 717	306 388	1 914 670	1	2
Alabama	157 603	150 527	111 838	39 726	7 076	2 983	6 557	39 775	6	17
Alaska	36 961	34 340	26 823	7 709	2 622	842	596	7 852	16	37
Arizona	242 217	231 088	152 462	78 740	11 128	4 772	3 760	23 476	5	13
Arkansas	69 946	62 699	52 650	10 706	7 247	1 132	2 406	9 715	16	37
California	1 719 469	1 641 481	1 213 315	433 627	77 988	34 881	39 496	241 525	2	6
Colorado	239 246	224 436	164 291	60 166	14 810	3 861	4 345	S	5	16
Connecticut	177 875	164 162	124 377	44 056	13 713	3 184	4 247	25 460	8	12
Delaware	33 102	28 998	18 665	10 333	4 104	812	342	5 842	5	10
District of Columbia	13 262	11 304	9 124	2 180	1 958	224	S	1 305	3	S
Florida	828 874	702 803	503 391	203 321	126 071	15 216	15 089	101 455	4	7
Georgia	416 123	355 117	233 848	122 249	61 006	6 506	9 656	61 787	10	18
Hawaii *	112 265	106 709	87 394	19 826	5 555	2 649	2 161	23 974	5	16
Idaho	53 439	51 942	35 956	16 166	^S 1 497	1 147	1 338	9 837	10	37
Illinois	575 230	547 035	410 139	138 226	28 195	10 915	12 422	86 609	3	7
Indiana	292 573	279 046	206 424	73 098	13 528	5 676	8 506	48 193	3	10
Iowa	85 238	83 090	60 468	23 226	2 148	1 520	^S 4 591	23 216	7	43
Kansas	92 768	86 781	62 191	25 457	^S 5 987	1 457	S	13 900	8	S
Kentucky	117 591	109 774	73 688	36 709	S	2 784	S	16 260	13	S
Louisiana	195 828	186 944	130 359	56 585	8 883	4 619	3 683	27 706	8	11
Maine	43 355	41 566	28 810	12 756	1 789	863	S	8 609	16	S
Maryland	344 168	313 046	239 861	D	31 122	4 458	7 364	38 694	11	8
Massachusetts	260 520	244 521	182 760	61 760	15 999	3 153	4 503	30 626	5	17
Michigan	472 144	445 268	343 375	102 954	26 876	10 787	10 808	62 403	8	11
Minnesota	264 992	249 269	187 407	61 930	15 723	4 720	7 751	48 722	4	9
Mississippi	63 579	56 352	41 798	S	7 227	S	1 589	9 427	9	15
Missouri	340 734	318 866	226 723	92 634	21 868	4 406	12 230	47 212	3	7
Montana	26 841	25 477	21 071	8 636	1 364	353	985	5 206	18	32
Nebraska	65 313	62 308	41 290	21 025	3 005	669	2 153	^S 23 639	5	26
Nevada	78 013	76 223	54 730	21 496	1 789	S	1 709	11 527	9	19
New Hampshire	36 191	34 417	25 389	9 028	1 774	506	866	6 582	12	32
New Jersey	417 316	380 745	283 972	99 642	36 571	7 621	5 282	46 380	3	8
New Mexico	34 764	33 765	23 026	10 739	^S 999	1 005	813	4 288	18	21
New York	770 951	734 391	560 274	175 389	36 560	13 478	12 349	101 787	3	10
North Carolina	411 901	341 714	241 309	101 966	70 187	6 663	7 683	56 967	7	10
North Dakota	29 870	26 633	16 072	10 561	^S 3 237	1 171	1 565	9 631	9	14
Ohio	482 849	458 051	333 168	126 144	24 799	9 634	15 076	92 712	6	14
Oklahoma	91 915	77 253	53 558	23 695	14 662	1 699	2 072	10 285	11	18
Oregon	199 385	178 668	125 928	52 740	^S 20 717	4 460	4 499	23 861	7	29
Pennsylvania	547 677	511 701	387 790	126 505	35 976	10 325	13 655	76 583	3	11
Rhode Island	44 407	42 229	33 772	8 457	2 178	1 032	^S 819	6 694	20	55
South Carolina	149 329	137 729	99 635	D	^S 11 600	2 726	2 849	23 427	8	14
South Dakota	23 248	22 492	15 411	S	^S 756	S	423	2 943	14	24
Tennessee	172 683	154 357	114 686	D	18 326	2 987	5 000	27 983	6	16
Texas	948 590	870 386	596 275	284 810	78 204	18 166	22 401	146 382	5	9
Utah	91 315	88 588	64 370	D	2 727	1 120	5 992	18 783	10	23
Vermont	25 747	24 636	18 740	5 896	S	234	S	S	9	S
Virginia	405 199	371 094	260 178	113 016	34 106	5 409	10 532	64 112	4	8
Washington	380 619	359 431	269 182	91 415	21 188	11 511	7 967	48 277	4	9
West Virginia	20 728	20 215	15 521	D	S	362	474	5 216	11	22
Wisconsin	287 890	269 932	190 088	79 863	^S 17 958	4 771	8 217	52 607	9	17
Wyoming	23 841	19 978	13 869	6 109	^S 3 863	^S 195	^S 431	^S 2 570	29	63

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
235210, PAINTING & WALL COVERING CONTRACTORS			235210, PAINTING & WALL COVERING CONTRACTORS—Con.		
Number of establishments in business during year	37 480	1	Selected costs	4 279 860	2
Number of proprietors and working partners	19 887	2	Cost of materials, components, and supplies	3 095 936	2
Total number of employees	195 331	1	Cost of construction work subcontracted out to others	966 104	5
Number of construction workers in March	142 809	1	Cost of selected power, fuels, and lubricants	217 820	2
Number of construction workers in May	162 077	1	Cost of electricity	44 686	9
Number of construction workers in August	179 422	1	Cost of natural gas and manufactured gas	9 712	7
Number of construction workers in November	158 651	1	Cost of gasoline and diesel fuel	156 637	2
Average number of construction workers	160 740	1	Cost of on-highway use of gasoline and diesel fuel	130 584	2
Number of other employees in March	34 711	2	Cost of off-highway use of gasoline and diesel fuel	26 054	4
Number of other employees in May	34 414	2	Cost of all other fuels and lubricants	6 784	9
Number of other employees in August	35 083	2	Rental cost for machinery, equipment, and buildings	241 717	2
Number of other employees in November	34 158	2	Rental cost for machinery and equipment	147 012	2
Average number of other employees	34 592	2	Rental cost for buildings	94 706	3
Payroll, all employees	4 543 495	1	Selected purchased services	287 882	2
Payroll, construction workers	3 430 534	1	Purchased communication services	119 297	2
Payroll, other employees	1 112 961	1	Cost of repairs to buildings and other structures	19 714	8
First-quarter payroll, all employees	919 055	1	Cost of repairs to machinery and equipment	148 870	3
Fringe benefits, all employees	1 008 549	1	Value of construction work	13 015 683	1
Legally required expenditures	724 829	1	Value of construction work on government owned projects ..	2 175 022	2
Voluntary expenditures	283 721	1	Value of construction work on federally owned projects ..	514 635	3
Value of business done	13 067 298	1	Value of construction work on state and locally owned projects	1 660 386	2
Value of construction work	13 015 683	1	Value of construction work on privately owned projects	10 840 661	1
Value of construction work subcontracted in from others ..	6 622 779	1	Beginning-of-year gross book value of depreciable assets	1 672 162	2
Other business receipts	51 615	10	Capital expenditures, other than land	306 388	2
Net value of construction	12 049 579	1	Retirements and disposition of depreciable assets	63 880	4
Value added	8 787 438	1	End-of-year gross book value of depreciable assets	1 914 670	2
			Depreciation charges during year	224 228	2
			Number of establishments with inventories	6 669	4
			Value of construction work for establishments with inventories ..	4 280 858	2
			End of 1997, inventories of materials and supplies	96 164	4
			End of 1996, inventories of materials and supplies	91 504	4
			Number of establishments with no inventories	15 888	2
			Value of construction work for establishments with no inventories	5 223 827	2
			Number of establishments not reporting inventories	14 922	2
			Value of construction work for establishments not reporting inventories	3 510 998	3

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235210, PAINTING & WALL COVERING CONTRACTORS											
Total	37 480	195 331	4 543 495	13 067 298	13 015 683	12 049 579	8 787 438	3 313 756	966 104	1	1
Establishments with 1 to 4 employees	26 456	45 139	759 579	3 030 995	3 020 921	2 767 768	2 012 657	765 185	253 153	2	3
Establishments with 5 to 9 employees	6 491	40 871	797 631	2 455 635	2 447 154	2 227 485	1 620 668	615 298	219 669	3	4
Establishments with 10 to 19 employees	2 864	38 089	919 719	2 456 693	2 448 405	2 275 675	1 688 252	595 712	172 730	3	3
Establishments with 20 to 49 employees	1 321	38 692	1 053 843	2 648 333	2 640 402	2 498 054	1 786 146	719 839	142 348	3	2
Establishments with 50 to 99 employees	260	17 338	563 097	1 391 667	D	1 286 846	960 198	D	D	1	1
Establishments with 100 to 249 employees	75	10 731	321 353	780 609	D	698 547	502 053	D	D	Z	Z
Establishments with 250 to 499 employees	13	D	D	D	D	D	D	D	D	D	D
Establishments with 500 to 999 employees	1	D	D	D	D	D	D	D	D	D	D
Establishments with 1,000 employees or more	—	—	—	—	—	—	—	—	—	—	—

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235210, PAINTING & WALL COVERING CONTRACTORS											
Total	37 480	195 331	4 543 495	13 067 298	13 015 683	12 049 579	8 787 438	3 313 756	966 104	1	1
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	4 285	4 548	45 066	159 879	158 903	153 696	114 426	40 246	S	7	6
Establishments with value of business done \$50,000 to \$99,999	7 836	13 143	161 044	579 710	578 453	555 344	407 843	148 759	23 108	5	4
Establishments with value of business done \$100,000 to \$249,999	11 116	34 028	556 323	1 751 929	1 748 145	1 644 895	1 198 894	449 785	103 251	3	3
Establishments with value of business done \$250,000 to \$499,999	5 394	32 056	629 320	1 859 878	1 853 417	1 737 193	1 299 165	444 490	116 223	4	4
Establishments with value of business done \$500,000 to \$999,999	2 957	31 906	714 154	2 030 870	2 022 325	1 845 073	1 349 313	504 305	177 252	4	4
Establishments with value of business done \$1,000,000 to \$2,499,999	1 734	35 229	960 856	2 583 354	2 571 424	2 394 105	1 754 634	651 401	177 319	2	3
Establishments with value of business done \$2,500,000 to \$4,999,999	475	19 169	604 030	1 616 798	1 613 998	1 526 807	1 117 471	412 136	87 191	1	3
Establishments with value of business done \$5,000,000 to \$9,999,999	197	13 427	472 595	1 355 704	1 352 387	1 193 064	827 357	369 024	159 322	1	4
Establishments with value of business done \$10,000,000 or more	66	10 233	385 706	1 086 779	1 074 320	959 238	687 763	283 934	115 082	Z	Z

Table 7. **Value of Construction Work for Establishments With Payroll by Type of Construction: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
235210, PAINTING & WALL COVERING CONTRACTORS								
Total	13 015 683	5 039 834	2 615 939	5 184 675	1	2	2	2
Building construction, total	11 062 245	4 558 709	2 330 472	4 173 064	1	2	3	2
Single-family houses, detached and attached	4 309 488	2 114 592	667 530	1 527 366	2	3	4	4
Single-family houses, detached	3 657 054	1 813 103	562 834	1 281 117	2	4	5	4
Single-family houses, attached	652 433	301 489	104 696	246 248	5	8	11	8
Apartment buildings, apartment type condominiums and cooperatives	1 202 598	330 306	207 697	664 595	7	11	13	8
Manufacturing and light industrial buildings	924 273	277 163	185 281	461 829	3	5	4	5
Manufacturing and light industrial warehouses	272 881	117 897	51 719	103 264	2	4	3	4
Hotels and motels	325 284	139 318	81 733	104 233	5	6	9	6
Office buildings	1 509 682	504 567	489 839	515 276	2	3	4	4
All other commercial buildings, nec	852 801	392 681	188 422	271 699	4	4	7	9
Commercial warehouses	221 214	109 899	45 521	65 795	5	6	15	7
Religious buildings	167 498	43 473	51 940	72 085	6	6	16	7
Educational buildings	446 879	176 097	136 709	134 073	4	4	7	6
Health care and institutional buildings	450 669	192 927	154 345	103 397	5	9	6	6
All other nonresidential buildings	378 979	159 790	69 737	149 451	5	10	9	7
Nonbuilding construction, total	1 778 203	481 125	285 467	1 011 611	2	5	6	2
Highways, streets, and related work	562 849	213 850	139 775	209 224	5	10	10	4
Bridges, tunnels, and elevated highways	247 232	41 898	38 011	167 323	2	2	3	2
Blast furnaces, petroleum refineries, chemical complexes, etc	320 793	54 825	30 366	235 603	3	4	6	3
Sewage and water treatment plants	147 077	57 912	37 760	51 405	7	6	13	12
Water storage facilities	183 248	34 891	14 357	134 000	8	13	13	10
Ships	100 890	36 620	S	60 444	3	1	S	4
Other nonbuilding construction, nec	216 113	41 130	21 370	153 613	6	10	10	7
Construction work, nsk	175 235	X	X	X	11	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
235210, PAINTING & WALL COVERING CONTRACTORS											
Total	37 480	195 331	4 543 495	13 015 683	X	12 049 579	8 787 438	966 104	1	1	5
Establishments not specializing ..	7 248	57 157	1 487 896	3 884 934	X	3 659 592	2 703 229	225 342	2	2	4
Establishments specializing 51 percent or more	30 232	138 175	3 055 599	9 130 749	7 907 438	8 389 987	6 084 210	740 762	1	2	7
Single-family houses, detached and attached											
All establishments specializing	20 500	70 817	1 308 880	4 060 208	3 573 558	3 730 933	2 726 349	329 275	2	3	7
Specialization 100 percent	9 904	29 332	543 607	1 677 398	1 677 398	1 530 601	1 122 490	146 797	4	4	12
Specialization 90 to 99 percent ...	3 442	14 826	272 871	846 672	787 500	778 788	557 961	67 884	6	8	14
Specialization 80 to 89 percent ...	2 731	9 542	177 875	560 660	458 875	525 586	385 727	35 074	7	8	25
Specialization 70 to 79 percent ...	2 326	8 581	159 638	481 784	352 451	447 596	330 542	34 188	8	9	27
Specialization 60 to 69 percent ...	1 710	6 629	121 285	390 802	241 005	348 854	253 781	41 948	8	8	14
Specialization 51 to 59 percent ...	387	1 908	33 603	102 892	56 330	99 508	75 847	3 384	21	18	17
Apartment buildings, apartment type condominiums and cooperatives											
All establishments specializing	2 637	12 720	252 007	861 616	759 230	711 665	523 537	149 951	6	9	27
Specialization 100 percent	S	4 771	90 182	340 414	340 414	271 919	199 729	⁶ 8 495	10	17	42
Specialization 90 to 99 percent ...	S	2 956	59 859	233 986	219 178	177 688	120 218	⁵ 6 297	13	23	48
Specialization 80 to 89 percent ...	347	1 482	29 013	83 253	67 888	75 109	57 590	8 144	17	12	8
Specialization 70 to 79 percent ...	201	1 215	25 076	65 801	47 902	61 537	46 905	4 264	23	17	24
Specialization 60 to 69 percent ...	281	1 882	38 947	117 271	72 089	104 928	83 401	12 342	16	13	15
Specialization 51 to 59 percent ...	⁹ 2	413	8 931	20 891	11 758	20 483	15 694	408	32	26	Z
Office buildings											
All establishments specializing	1 450	11 464	336 784	863 784	687 853	794 961	583 067	68 824	5	4	12
Specialization 100 percent	666	3 314	80 115	227 346	227 346	198 032	140 566	29 314	10	10	26
Specialization 90 to 99 percent ...	242	1 691	45 747	110 461	102 127	103 713	76 863	6 748	14	11	23
Specialization 80 to 89 percent ...	168	1 493	46 279	133 490	107 451	127 183	89 916	6 306	12	12	17
Specialization 70 to 79 percent ...	138	1 750	54 660	141 273	102 154	131 289	97 329	9 984	12	11	30
Specialization 60 to 69 percent ...	198	2 362	76 062	181 465	111 536	170 935	127 303	10 531	8	8	7
Specialization 51 to 59 percent ...	38	855	33 922	69 749	37 239	63 808	51 090	5 941	11	7	4
All other commercial buildings, nec											
All establishments specializing	1 103	6 853	160 417	445 357	368 792	420 904	310 732	24 452	7	8	15
Specialization 100 percent	525	2 728	67 515	178 766	178 766	165 345	125 490	13 421	11	11	19
Specialization 90 to 99 percent ...	S	589	12 600	⁵ 2 313	⁴ 7 818	⁵ 0 854	⁴ 0 696	¹ 459	25	45	42
Specialization 80 to 89 percent ...	40	493	13 934	32 635	27 084	31 756	23 791	879	15	12	32
Specialization 70 to 79 percent ...	161	913	21 341	61 690	44 214	55 735	37 807	⁵ 955	16	15	45
Specialization 60 to 69 percent ...	168	1 344	29 609	77 866	47 649	76 325	52 058	1 541	21	20	24
Specialization 51 to 59 percent ...	77	786	15 420	42 088	23 262	40 890	30 891	1 198	20	22	26
Educational buildings											
All establishments specializing	402	1 583	38 541	109 851	84 856	106 018	78 579	3 833	12	12	23
Specialization 100 percent	137	228	3 894	18 760	18 760	18 564	12 910	¹ 96	33	34	43
Specialization 90 to 99 percent ...	99	290	7 375	21 599	19 950	19 222	13 034	2 377	23	27	36
Specialization 80 to 89 percent ...	S	101	2 659	S	S	D	S	D	27	S	D
Specialization 70 to 79 percent ...	⁴ 7	337	8 845	22 963	16 902	22 715	16 576	² 48	27	25	59
Specialization 60 to 69 percent ...	10	331	8 752	18 805	11 536	D	14 434	D	5	6	D
Specialization 51 to 59 percent ...	S	S	7 016	S	S	S	S	593	S	S	14

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
235210, PAINTING & WALL COVERING CONTRACTORS		
Total	13 067 298	1
Special trade contractors, total	12 498 255	1
Bridge painting contractor	254 032	4
Paint and wallpaper removal contractor	254 520	7
Painting contractor	10 363 024	1
Paper hanging and wall covering contractor	948 184	3
Ship painting contractor	102 458	1
Traffic lane painting contractor	576 038	5
Other construction activities, nec	459 751	6
Other business activities secondary to construction activities, total	46 114	11
Other business activities, secondary to construction activities, nec	46 114	11
Kind of business activity, nsk	63 178	31

Table 10. Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
235210, PAINTING & WALL COVERING CONTRACTORS											
Total	37 480	195 331	4 543 495	13 015 683	X	12 049 579	8 787 438	966 104	1	1	5
Establishments not specializing	1 127	6 968	165 760	493 753	X	432 065	314 277	61 688	7	6	7
Establishments specializing 51 percent or more	36 352	188 363	4 377 735	12 521 930	11 508 336	11 617 515	8 473 162	904 415	1	1	5
Bridge painting contractor											
All establishments specializing	163	1 806	62 460	193 355	175 209	179 886	123 886	13 470	8	6	4
Specialization 100 percent	114	793	29 619	92 622	92 622	84 491	57 875	8 131	14	7	6
Specialization 90 to 99 percent	14	276	8 850	26 714	25 279	25 674	16 649	1 040	24	15	21
Specialization 80 to 89 percent	22	455	13 676	44 024	36 520	43 545	30 559	479	19	18	6
Specialization 70 to 79 percent	⁵⁷	184	7 127	20 926	15 844	D	12 083	D	8	3	D
Specialization 60 to 69 percent	2	D	D	D	D	D	D	D	D	D	D
Specialization 51 to 59 percent	4	D	D	D	D	5 877	D	D	D	D	D
Paint and wallpaper removal contractor											
All establishments specializing	1 048	4 071	68 561	256 214	241 826	223 958	163 717	32 257	6	7	19
Specialization 100 percent	963	3 450	57 119	210 750	210 750	184 354	137 384	26 397	7	8	22
Specialization 90 to 89 percent	23	S	S	S	S	S	S	S	S	S	S
Specialization 80 to 89 percent	⁵⁴	⁵¹⁶	⁵⁷²⁶	^{51 406}	^{51 168}	^{51 223}	⁵⁶⁰⁸	⁵¹⁸³	46	46	51
Specialization 70 to 79 percent	⁵¹⁴	77	1 719	4 449	3 177	4 449	3 386	—	38	37	—
Specialization 60 to 69 percent	27	90	2 430	15 601	9 794	10 339	6 639	5 262	26	24	23
Specialization 51 to 59 percent	17	249	4 369	12 769	6 762	12 715	7 819	S	15	22	S
Painting contractor											
All establishments specializing	33 112	170 931	3 919 945	11 014 236	10 109 331	10 219 155	7 520 867	795 081	1	1	6
Specialization 100 percent	24 083	103 285	2 120 280	6 362 747	6 362 747	5 898 299	4 275 329	464 447	2	2	8
Specialization 90 to 99 percent	3 549	28 698	709 914	1 834 521	1 724 773	1 702 934	1 308 441	131 587	3	3	5
Specialization 80 to 89 percent	2 327	16 371	437 710	1 104 615	908 496	1 037 305	790 902	67 310	4	4	19
Specialization 70 to 79 percent	1 532	10 745	298 474	747 819	543 418	704 688	489 499	43 132	5	4	11
Specialization 60 to 69 percent	1 093	8 218	245 759	648 384	400 433	610 456	465 970	37 928	5	4	10
Specialization 51 to 59 percent	528	3 615	107 808	316 150	169 463	265 473	190 727	⁵⁰ 677	6	16	52
Paper hanging and wall covering contractor											
All establishments specializing	1 239	4 599	110 892	316 241	280 262	293 153	217 276	23 089	8	8	15
Specialization 100 percent	851	2 802	63 502	177 295	177 295	163 477	124 410	13 818	11	11	15
Specialization 90 to 99 percent	⁵⁶	344	11 587	30 011	27 723	29 010	19 852	1 001	26	27	18
Specialization 80 to 89 percent	80	210	7 145	19 446	16 276	17 581	11 774	1 865	23	25	36
Specialization 70 to 79 percent	⁵⁰	359	10 245	34 248	25 083	32 480	21 599	⁵¹ 768	33	33	45
Specialization 60 to 69 percent	164	778	16 199	49 348	30 535	45 546	35 478	⁵³ 803	21	20	63
Specialization 51 to 59 percent	³⁸	¹⁰⁶	² 215	⁵ 893	³ 349	⁵ 060	⁴ 163	S	57	57	S
Ship painting contractor											
All establishments specializing	³⁷	1 425	37 741	88 130	81 963	83 014	60 272	5 116	1	1	Z
Specialization 100 percent	11	915	22 078	47 359	47 359	D	31 648	D	Z	Z	D
Specialization 90 to 99 percent	2	D	D	D	D	D	D	D	D	D	D
Specialization 80 to 89 percent	2	D	D	D	D	D	D	D	D	D	D
Specialization 70 to 79 percent	1	D	D	D	D	D	D	D	D	D	D
Specialization 51 to 59 percent	S	⁴⁵	1 754	6 660	3 869	D	3 689	D	44	11	D
Traffic lane painting contractor											
All establishments specializing	563	4 830	164 476	595 730	561 723	575 964	351 170	19 766	6	5	10
Specialization 100 percent	423	3 158	115 588	431 205	431 205	421 618	243 101	9 587	7	7	19
Specialization 90 to 99 percent	21	556	17 412	56 401	52 433	55 509	37 100	891	9	6	12
Specialization 80 to 89 percent	¹⁰	157	4 623	21 570	18 282	⁵¹⁵ 745	11 215	5 825	30	30	4
Specialization 70 to 79 percent	⁴⁸	480	17 156	55 357	41 122	54 008	37 334	1 349	14	14	21
Specialization 60 to 69 percent	⁴⁹	343	6 493	19 736	12 498	18 573	15 779	1 163	38	29	24
Specialization 51 to 59 percent	¹¹	¹³⁶	³ 204	⁵¹¹ 462	⁶ 183	¹⁰ 510	⁶ 641	S	53	46	S

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
235210, PAINTING & WALL COVERING CONTRACTORS										
United States	13 015 683	22 351	8 758 588	4 058	939 651	15 042	3 317 444	1	1	3
Alabama	157 850	220	87 975	84	20 015	233	49 861	6	11	12
Alaska	46 430	71	27 264	30	9 468	⁵⁴ 3	⁵⁹ 697	12	21	7
Arizona	246 295	391	182 994	85	11 444	253	51 857	5	9	8
Arkansas	64 610	167	51 767	40	3 756	34	9 086	17	21	31
California	1 696 892	2 760	1 239 155	38	25 498	1 617	432 239	2	3	5
Colorado	248 164	628	165 482	61	10 786	286	71 896	5	8	15
Connecticut	198 864	290	95 104	86	31 826	295	71 934	8	11	4
Delaware	44 625	89	26 280	77	16 165	11	2 179	5	6	10
District of Columbia	57 258	3	2 923	102	49 846	13	4 489	14	11	16
Florida	821 425	1 301	590 229	152	38 705	979	192 490	6	9	9
Georgia	398 505	434	277 431	113	20 989	419	100 085	10	15	23
Hawaii *	125 470	138	94 809	⁵⁴ 4	13 205	28	17 455	4	6	2
Idaho	53 014	282	38 658	123	3 611	71	10 745	13	16	17
Illinois	593 611	989	400 681	130	55 742	608	137 188	3	4	6
Indiana	278 818	591	184 298	144	29 398	309	65 122	4	6	9
Iowa	101 557	238	62 041	134	21 883	95	17 634	6	11	6
Kansas	108 292	245	55 080	99	27 334	196	25 878	7	12	11
Kentucky	122 762	150	65 977	124	21 534	289	35 250	10	20	9
Louisiana	220 612	208	146 092	91	31 097	141	43 423	7	11	1
Maine	52 459	132	40 435	10	9 370	⁵⁴ 4	2 654	13	19	Z
Maryland	294 648	469	202 398	70	27 471	406	64 780	11	17	1
Massachusetts	264 232	454	165 687	100	18 448	416	80 097	5	8	14
Michigan	455 320	798	313 112	52	4 374	522	137 835	8	9	10
Minnesota	234 226	424	183 472	69	8 881	200	41 873	5	6	11
Mississippi	63 660	71	34 100	58	6 770	146	22 790	8	14	3
Missouri	302 266	483	206 093	69	14 169	410	82 003	4	6	23
Montana	33 749	87	13 278	⁵² 3	7 128	⁵³ 9	13 343	14	29	4
Nebraska	63 274	195	49 375	⁵² 2	3 520	77	10 378	6	9	30
Nevada	110 625	127	46 625	86	32 613	59	31 388	6	13	5
New Hampshire	33 916	95	20 779	23	2 257	90	10 879	12	23	26
New Jersey	385 077	655	278 785	74	11 232	611	95 060	4	6	5
New Mexico	36 620	133	28 464	⁵⁴ 4	2 417	92	5 739	18	25	24
New York	758 567	1 128	457 130	102	29 185	1 086	272 252	3	4	18
North Carolina	398 288	819	271 232	139	29 553	491	97 503	7	10	17
North Dakota	21 559	65	14 413	⁵⁶ 3	6 269	S	⁵⁸ 76	10	13	19
Ohio	470 364	824	351 984	87	20 702	643	97 678	5	6	20
Oklahoma	94 426	241	62 803	⁵⁶ 3	⁵⁷ 197	98	24 426	14	22	43
Oregon	206 925	445	145 883	126	22 019	213	39 023	11	16	13
Pennsylvania	501 074	810	336 186	157	20 958	605	143 930	3	5	12
Rhode Island	50 450	239	39 564	⁵⁷ 4	7 619	24	3 267	17	21	20
South Carolina	174 020	302	81 520	182	35 844	301	56 656	9	15	23
South Dakota	30 453	70	16 114	⁵⁴ 1	⁵⁷ 690	⁵⁶ 6	6 649	20	33	62
Tennessee	189 563	286	104 886	94	26 329	225	58 348	7	9	23
Texas	941 409	1 002	641 033	89	22 092	869	278 284	5	7	10
Utah	92 508	260	70 469	8	2 471	79	⁵⁹ 19 568	10	13	3
Vermont	28 008	107	14 828	⁵⁵ 5	2 566	⁵⁴ 1	10 614	9	17	19
Virginia	434 039	776	248 250	173	66 421	571	119 368	4	6	9
Washington	366 986	803	281 508	98	21 558	379	63 919	4	5	8
West Virginia	30 011	75	13 303	53	10 629	17	6 080	7	13	11
Wisconsin	286 734	674	207 021	51	8 259	279	71 454	10	11	3
Wyoming	25 173	105	23 613	⁵⁹ 4	1 336	9	224	33	36	16

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **All other nonresidential buildings.** Includes nonresidential buildings that are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military non-building such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Electrical Contractors

1997

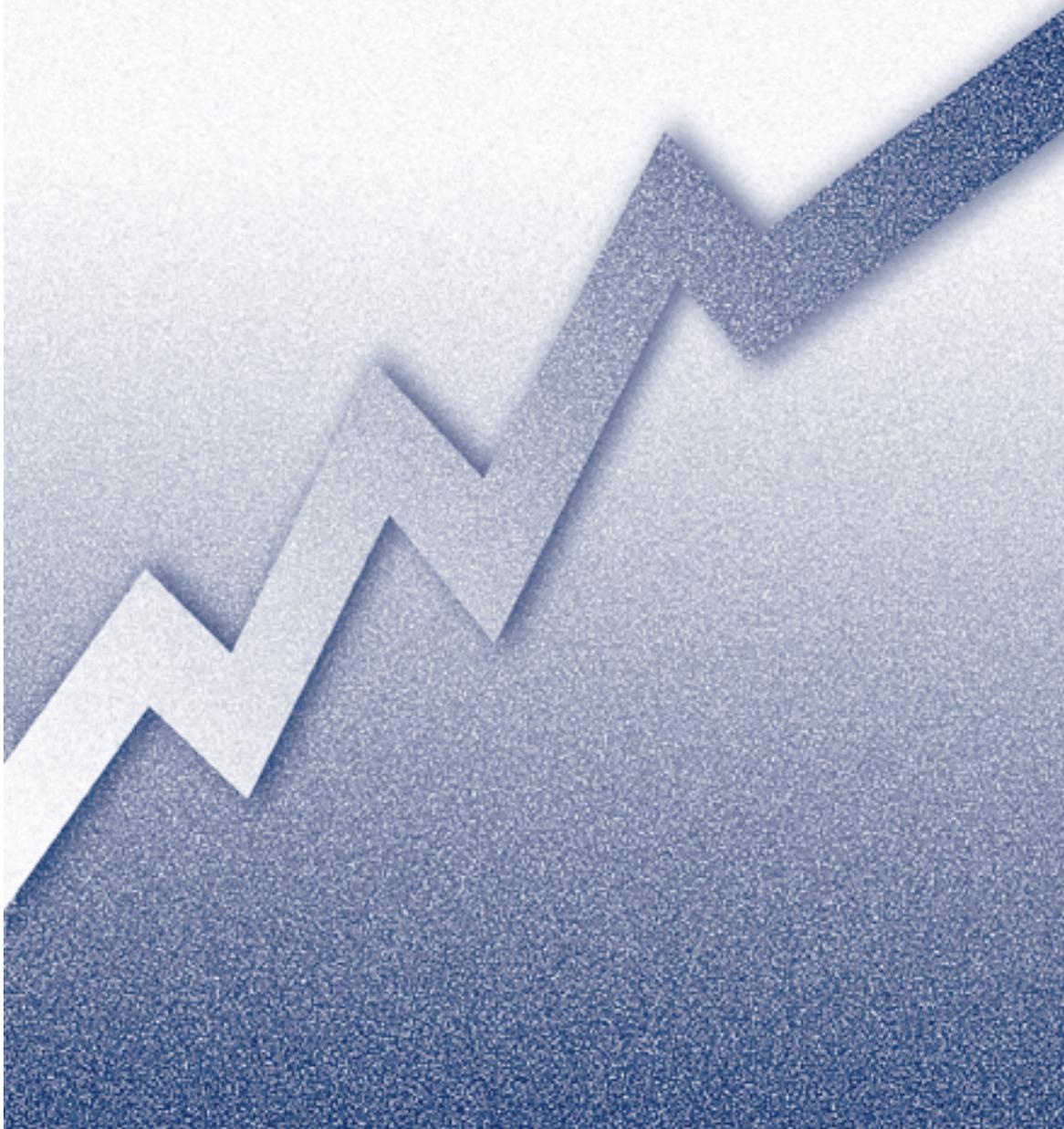
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1997 Economic Census

Construction

Industry Series



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1997 Economic Census

Construction

Industry Series



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
235310	Electrical contractors	61 414	641 985	21 680 036	64 260 292	61 121 104	38 580 524	23 195 354	1 015 851
173100	Electrical work special trade contractors.....	61 414	641 985	21 680 036	64 260 292	61 121 104	38 580 524	23 195 354	1 015 851

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers	
235310, ELECTRICAL CONTRACTORS										
United States	61 414	641 985	510 921	482 658	498 478	532 341	530 209	21 680 036	16 261 157	1
Alabama	897	8 531	6 922	7 030	6 789	6 955	6 912	221 431	166 282	6
Alaska	222	2 130	1 750	1 267	1 625	2 442	1 665	91 361	73 306	6
Arizona	1 051	11 633	9 132	8 860	9 498	9 251	8 918	341 882	252 001	5
Arkansas	450	3 485	2 921	2 936	2 877	2 695	3 173	104 310	80 381	8
California	6 011	61 932	47 837	43 984	46 328	50 416	50 620	2 369 837	1 736 765	2
Colorado	1 355	15 097	12 138	11 773	11 773	12 582	12 624	508 400	403 186	4
Connecticut	1 102	7 264	5 646	5 290	5 589	5 778	5 928	275 555	198 271	7
Delaware	235	2 602	2 101	1 904	2 062	2 110	2 326	85 809	66 271	10
District of Columbia	*40	367	270	256	272	292	261	12 477	8 286	7
Florida	3 775	40 728	32 285	31 125	30 561	33 010	34 446	1 072 319	778 878	3
Georgia	1 879	22 416	17 951	16 972	17 494	18 415	18 924	664 250	484 305	3
Hawaii *	269	2 172	1 663	1 655	1 729	1 622	1 645	87 945	66 572	7
Idaho	405	2 992	2 412	2 260	2 379	2 559	2 448	93 423	75 301	13
Illinois	2 561	26 818	21 240	19 169	20 446	22 827	22 520	1 190 557	896 838	3
Indiana	1 178	13 683	10 745	10 552	10 531	11 059	10 836	489 358	372 297	5
Iowa	651	5 927	4 770	4 502	4 639	4 957	4 982	194 493	154 298	5
Kansas	543	5 012	4 004	3 696	3 754	4 203	4 362	180 916	137 825	6
Kentucky	797	9 092	7 420	7 287	7 206	7 555	7 633	266 326	203 678	6
Louisiana	966	15 048	12 309	11 554	12 664	12 491	12 525	429 212	341 217	7
Maine	391	2 203	1 815	1 620	1 542	1 981	2 116	68 415	53 940	8
Maryland	1 334	14 449	11 413	10 814	11 418	11 813	11 608	493 378	363 047	3
Massachusetts	1 779	14 693	11 663	11 227	11 580	11 871	11 972	557 206	420 737	4
Michigan	2 157	24 523	20 121	18 716	19 488	21 125	21 156	940 798	741 997	6
Minnesota	1 299	11 918	9 415	8 650	9 175	10 051	9 784	440 042	342 052	4
Mississippi	452	3 941	3 310	3 257	3 270	3 464	3 250	93 997	73 849	9
Missouri	990	12 425	10 043	9 564	9 857	10 213	10 539	458 540	342 722	3
Montana	271	1 776	1 529	1 328	1 529	1 618	1 639	48 693	41 860	15
Nebraska	489	4 499	3 582	3 520	3 496	3 631	3 682	133 368	97 454	5
Nevada	398	6 614	5 398	5 433	5 291	5 534	5 335	229 791	174 928	6
New Hampshire	407	2 465	1 980	1 807	1 875	2 103	2 138	71 208	52 100	8
New Jersey	2 661	18 540	14 341	13 518	13 856	14 892	15 098	738 422	552 187	3
New Mexico	501	4 488	3 690	3 367	3 566	4 021	3 808	137 066	106 846	8
New York	3 869	41 413	33 069	30 708	32 690	34 616	34 263	1 616 698	1 240 186	2
North Carolina	2 295	23 631	19 806	19 645	19 498	20 280	19 800	639 751	490 976	3
North Dakota	222	1 257	1 011	916	1 023	1 042	1 063	39 606	30 935	12
Ohio	2 123	24 576	19 113	17 666	18 912	20 220	19 653	861 134	634 667	3
Oklahoma	833	5 689	4 033	4 143	3 943	4 076	3 970	162 289	104 770	6
Oregon	774	8 888	6 936	6 537	6 834	7 205	7 167	350 547	267 429	4
Pennsylvania	2 523	24 337	19 159	18 021	18 342	20 151	20 122	866 670	654 423	3
Rhode Island	304	2 132	1 551	1 479	1 513	1 580	1 633	72 116	47 000	8
South Carolina	907	10 838	8 941	8 901	9 005	9 106	8 754	264 168	205 217	4
South Dakota	224	1 579	1 226	1 080	1 289	1 297	1 240	38 053	28 647	11
Tennessee	885	14 082	11 713	10 944	11 043	12 194	12 672	413 883	306 632	6
Texas	3 547	47 054	37 416	35 477	36 584	39 337	38 265	1 383 989	986 897	2
Utah	543	6 066	5 157	5 114	4 959	5 316	5 239	199 501	164 568	7
Vermont	231	1 162	908	828	830	1 028	945	30 248	21 689	8
Virginia	1 578	19 218	15 166	14 023	14 745	16 145	15 749	566 850	400 721	3
Washington	1 317	14 355	11 381	11 099	11 685	11 766	11 685	517 424	389 030	4
West Virginia	292	2 611	2 122	2 045	1 854	2 342	2 247	82 535	67 755	7
Wisconsin	1 235	12 394	9 433	8 579	9 223	10 061	9 851	449 215	334 200	4
Wyoming	195	1 242	965	867	935	1 041	1 018	34 374	25 738	10

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
235310, ELECTRICAL CONTRACTORS										
United States	64 260 292	61 121 104	38 580 524	23 195 354	3 139 188	818 635	1 015 851	7 612 438	1	1
Alabama	640 242	623 353	364 415	261 870	16 889	10 398	10 013	108 099	5	13
Alaska	254 196	247 506	172 167	77 989	6 690	5 947	5 945	51 764	9	36
Arizona	983 060	942 575	572 417	385 163	40 485	18 124	19 360	107 508	5	11
Arkansas	305 874	299 471	191 357	115 231	6 404	2 750	7 553	42 488	6	13
California	7 310 563	6 838 469	4 296 989	2 623 084	472 095	94 051	100 772	770 119	2	5
Colorado	1 514 930	1 426 138	897 663	537 981	88 792	17 345	25 229	179 984	4	7
Connecticut	861 376	777 908	467 605	311 180	83 468	9 216	14 133	98 490	4	14
Delaware	236 661	230 493	153 689	80 586	6 169	3 381	3 011	23 701	7	10
District of Columbia	31 303	30 736	22 045	8 691	567	365	845	4 319	5	5
Florida	3 386 397	3 143 814	1 858 183	1 300 569	242 583	46 939	53 409	407 330	3	7
Georgia	2 006 166	1 886 362	1 071 763	821 346	119 804	23 634	31 818	221 880	3	8
Hawaii *	282 201	269 414	169 066	101 840	12 787	6 654	3 481	47 847	6	14
Idaho	258 173	249 767	152 829	99 168	8 406	3 259	4 127	35 758	9	17
Illinois	3 236 197	3 016 535	1 973 307	1 072 042	219 662	37 537	42 601	324 484	2	7
Indiana	1 369 687	1 318 766	837 274	504 266	50 920	14 808	22 445	160 804	5	12
Iowa	582 602	563 170	329 702	240 238	19 432	6 924	15 076	93 044	5	15
Kansas	536 595	523 003	319 702	210 786	13 592	4 391	11 421	69 502	6	13
Kentucky	764 776	738 249	468 279	286 159	26 527	9 656	19 842	117 867	5	15
Louisiana	1 256 125	1 205 993	803 416	407 348	50 132	16 859	13 770	136 122	7	11
Maine	218 847	212 496	110 409	106 385	6 350	3 106	3 793	23 589	12	25
Maryland	1 396 292	1 372 496	835 437	546 152	23 796	15 194	22 453	159 384	3	12
Massachusetts	1 736 146	1 613 179	1 018 189	610 649	122 967	21 744	22 086	154 895	3	9
Michigan	2 817 775	2 719 275	1 864 933	874 912	98 500	39 038	48 177	378 700	7	9
Minnesota	1 267 436	1 222 542	772 672	464 431	44 893	16 717	24 318	169 763	3	9
Mississippi	284 307	280 146	199 644	85 922	4 161	3 822	7 965	49 019	9	8
Missouri	1 391 900	1 336 399	882 049	465 520	55 501	13 801	23 351	197 579	3	12
Montana	156 127	153 776	93 525	61 359	2 352	2 279	3 811	26 232	17	20
Nebraska	396 958	387 226	250 279	147 016	9 733	4 042	8 496	61 887	3	15
Nevada	678 469	661 828	422 129	246 760	16 641	10 744	7 033	56 780	5	23
New Hampshire	227 319	220 669	123 657	97 013	6 650	2 952	3 272	27 883	10	25
New Jersey	2 163 704	2 044 875	1 215 083	836 703	118 830	28 434	28 789	225 548	2	7
New Mexico	403 878	378 188	246 763	133 714	25 690	7 897	10 645	63 756	5	16
New York	4 800 954	4 575 114	2 977 562	1 645 219	225 840	54 558	52 741	491 074	2	6
North Carolina	1 990 324	1 896 600	1 298 424	609 989	93 724	21 601	37 256	258 392	3	9
North Dakota	143 785	140 020	85 848	54 172	3 765	1 994	3 638	25 894	13	19
Ohio	2 449 981	2 341 660	1 484 990	882 427	108 322	30 253	41 144	293 312	3	6
Oklahoma	583 260	556 638	352 661	205 568	26 622	6 186	8 899	71 694	7	13
Oregon	1 009 511	957 716	639 651	350 718	51 794	15 484	20 130	107 574	3	11
Pennsylvania	2 573 472	2 506 992	1 629 358	935 570	66 480	26 404	40 868	326 955	3	7
Rhode Island	237 713	227 967	137 715	90 515	9 746	2 978	4 143	30 540	6	34
South Carolina	742 387	703 563	450 180	262 701	38 824	10 946	13 231	89 412	4	15
South Dakota	135 605	131 176	75 348	58 149	4 429	1 892	4 228	24 877	8	23
Tennessee	1 193 489	1 102 142	655 828	457 615	91 346	15 998	20 157	141 541	4	9
Texas	4 059 156	3 901 986	2 409 182	1 526 316	157 170	55 891	67 734	505 547	2	6
Utah	601 965	577 366	341 168	238 064	24 598	8 356	10 458	71 367	5	7
Vermont	94 415	92 876	61 100	33 331	1 538	2 016	1 912	22 284	13	16
Virginia	1 611 741	1 530 339	946 090	598 194	81 402	22 407	23 253	181 228	3	5
Washington	1 553 433	1 461 206	906 457	580 247	92 227	22 397	21 621	157 678	3	7
West Virginia	190 599	186 691	122 437	66 337	3 908	3 019	2 706	38 699	9	20
Wisconsin	1 223 540	1 192 216	782 581	436 274	31 324	13 345	19 527	155 316	4	10
Wyoming	108 684	104 021	67 311	41 874	4 663	901	3 166	22 931	11	24

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
235310, ELECTRICAL CONTRACTORS			235310, ELECTRICAL CONTRACTORS— Con.		
Number of establishments in business during year	61 414	Z	Selected costs—Con.		
Number of proprietors and working partners	18 378	3	Cost of selected power, fuels, and lubricants	683 508	1
Total number of employees	641 985	1	Cost of electricity	114 080	2
Number of construction workers in March	482 658	1	Cost of natural gas and manufactured gas	22 266	4
Number of construction workers in May	498 478	1	Cost of gasoline and diesel fuel	524 526	1
Number of construction workers in August	532 341	1	Cost of on-highway use of gasoline and diesel fuel	459 892	1
Number of construction workers in November	530 209	1	Cost of off-highway use of gasoline and diesel fuel	64 634	4
Average number of construction workers	510 921	1	Cost of all other fuels and lubricants	22 636	5
Number of other employees in March	130 144	1	Rental cost for machinery, equipment, and buildings	818 635	1
Number of other employees in May	129 045	1	Rental cost for machinery and equipment	424 721	2
Number of other employees in August	131 382	1	Rental cost for buildings	393 914	2
Number of other employees in November	133 684	1	Selected purchased services	929 938	1
Average number of other employees	131 064	1	Purchased communication services	441 342	1
Payroll, all employees	21 680 036	1	Cost of repairs to buildings and other structures	82 717	3
Payroll, construction workers	16 261 157	1	Cost of repairs to machinery and equipment	405 879	2
Payroll, other employees	5 418 880	1	Value of construction work	64 260 292	1
First-quarter payroll, all employees	4 967 395	1	Value of construction work on government owned projects	13 933 966	2
Fringe benefits, all employees	5 541 209	1	Value of construction work on federally owned projects	3 435 015	3
Legally required expenditures	2 997 627	1	Value of construction work on state and locally owned projects	10 498 951	2
Voluntary expenditures	2 543 582	1	Value of construction work on privately owned projects	50 326 328	1
Value of business done	64 915 068	1	Beginning-of-year gross book value of depreciable assets	6 830 391	1
Value of construction work	64 260 292	1	Capital expenditures, other than land	1 015 851	1
Value of construction work subcontracted in from others	37 471 800	1	Retirements and disposition of depreciable assets	233 804	3
Other business receipts	654 773	7	End-of-year gross book value of depreciable assets	7 612 438	1
Net value of construction	61 121 104	1	Depreciation charges during year	897 384	1
Value added	38 580 524	1	Number of establishments with inventories	25 070	2
Selected costs	26 334 542	1	Value of construction work for establishments with inventories	37 673 300	1
Cost of materials, components, and supplies	22 511 846	1	End of 1997, inventories of materials and supplies	1 088 866	2
Cost of construction work subcontracted out to others	3 139 188	1	End of 1996, inventories of materials and supplies	1 045 438	2
			Number of establishments with no inventories	17 373	3
			Value of construction work for establishments with no inventories	15 738 830	2
			Number of establishments not reporting inventories	18 971	2
			Value of construction work for establishments not reporting inventories	10 848 162	2

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235310, ELECTRICAL CONTRACTORS											
Total	61 414	641 985	21 680 036	64 915 068	64 260 292	61 121 104	38 580 524	23 195 354	3 139 188	1	1
Establishments with 1 to 4 employees	34 960	66 608	1 473 961	5 633 716	5 579 168	5 449 314	3 452 706	2 051 156	129 854	2	2
Establishments with 5 to 9 employees	12 442	81 320	2 204 802	6 739 360	6 681 356	6 495 171	4 159 081	2 394 094	186 186	3	3
Establishments with 10 to 19 employees	7 226	96 131	2 960 022	8 740 029	8 632 935	8 326 769	5 306 735	3 127 129	306 166	3	4
Establishments with 20 to 49 employees	4 644	139 092	4 848 640	13 857 130	13 651 527	12 990 143	8 297 390	4 898 356	661 384	3	2
Establishments with 50 to 99 employees	1 337	91 490	3 513 487	10 072 390	9 970 283	9 490 243	5 923 753	3 668 597	480 040	2	1
Establishments with 100 to 249 employees	652	94 172	3 747 942	11 147 678	11 094 360	10 349 431	6 365 778	4 036 971	744 929	2	2
Establishments with 250 to 499 employees	114	38 641	1 581 536	4 623 135	4 578 752	4 241 132	2 659 588	1 625 927	337 620	Z	Z
Establishments with 500 to 999 employees	30	20 451	826 890	2 479 886	D	2 288 617	1 406 385	D	D	Z	Z
Establishments with 1,000 employees or more	9	14 081	522 757	1 621 743	D	1 490 285	1 009 110	D	D	Z	Z

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235310, ELECTRICAL CONTRACTORS											
Total	61 414	641 985	21 680 036	64 915 068	64 260 292	61 121 104	38 580 524	23 195 354	3 139 188	1	1
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	7 364	10 461	161 057	551 761	546 080	537 784	349 289	194 176	S	5	4
Establishments with value of business done \$100,000 to \$249,999	16 304	38 425	766 289	2 673 754	2 646 963	2 600 588	1 687 664	939 715	46 375	3	3
Establishments with value of business done \$250,000 to \$499,999	11 195	53 118	1 259 156	3 954 983	3 916 133	3 829 313	2 472 589	1 395 573	86 820	4	3
Establishments with value of business done \$500,000 to \$999,999	8 898	74 844	2 099 360	6 259 783	6 203 040	6 039 031	3 869 651	2 226 122	164 010	4	4
Establishments with value of business done \$1,000,000 to \$2,499,999	6 581	110 162	3 505 943	10 111 461	9 975 179	9 598 225	6 154 377	3 580 131	376 954	3	3
Establishments with value of business done \$2,500,000 to \$4,999,999	2 744	91 600	3 248 132	9 422 485	9 302 588	8 902 586	5 596 434	3 426 050	400 002	3	3
Establishments with value of business done \$5,000,000 to \$9,999,999	1 364	84 493	3 275 535	9 408 754	9 287 792	8 824 418	5 577 108	3 368 273	463 374	2	2
Establishments with value of business done \$10,000,000 or more	957	174 365	7 316 545	22 377 724	22 229 154	20 638 924	12 774 041	8 013 452	1 590 231	1	1

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
235310, ELECTRICAL CONTRACTORS								
Total	64 260 292	33 538 388	19 830 659	10 447 499	1	1	1	2
Building construction, total	54 044 488	28 002 140	17 241 711	8 800 637	1	1	1	2
Single-family houses, detached and attached	7 679 897	4 875 024	1 452 417	1 352 456	3	3	4	4
Single-family houses, detached	6 645 574	4 246 226	1 253 903	1 145 445	3	3	4	5
Single-family houses, attached	1 034 323	628 799	198 514	207 010	6	8	8	8
Apartment buildings, apartment type condominiums and cooperatives	1 897 372	1 127 097	431 448	338 827	4	5	9	5
All other residential buildings	136 500	80 343	25 931	30 225	13	18	11	24
Manufacturing and light industrial buildings	9 787 646	4 232 277	3 579 531	1 975 837	2	2	2	3
Manufacturing and light industrial warehouses	2 279 996	1 134 632	735 118	410 246	3	3	5	5
Hotels and motels	1 353 833	927 174	275 791	150 867	4	6	5	6
Office buildings	10 899 370	4 805 947	4 271 607	1 821 816	2	2	2	4
All other commercial buildings, nec	7 109 264	3 840 260	2 106 370	1 162 635	2	3	4	4
Commercial warehouses	1 625 416	937 624	420 100	267 692	4	4	8	8
Religious buildings	739 401	363 675	245 644	130 083	4	6	7	7
Educational buildings	4 470 362	2 333 675	1 715 354	421 333	3	4	4	6
Health care and institutional buildings	3 697 500	1 786 245	1 427 340	483 916	2	3	4	7
Public safety buildings	967 552	647 570	230 037	89 945	7	10	12	10
Farm buildings, nonresidential	243 299	118 158	59 983	65 158	10	14	13	12
Amusement, social, and recreational buildings	680 526	468 522	152 224	59 780	3	4	5	10
All other nonresidential buildings	476 553	323 917	112 817	39 820	14	19	20	16
Nonbuilding construction, total	9 772 059	5 536 248	2 588 948	1 646 862	3	3	4	7
Highways, streets, and related work	1 745 802	1 165 370	374 343	206 088	7	7	8	11
Power and communication transmission lines, cables, towers, and related facilities	4 504 212	2 644 951	1 100 130	759 131	5	4	7	14
Power plants	435 972	210 373	153 216	72 384	4	7	3	7
Power and cogeneration plants, except hydroelectric	361 724	165 302	137 629	58 793	3	5	2	6
Power plants, hydroelectric	74 248	45 071	15 587	13 591	17	26	21	14
Blast furnaces, petroleum refineries, chemical complexes, etc	716 095	241 955	221 940	252 200	5	7	7	5
Sewage and water treatment plants	906 959	447 094	343 662	116 203	6	4	12	12
Sewage treatment plants	509 657	263 285	179 728	66 645	5	4	10	17
Water treatment plants	397 302	183 809	163 934	49 558	7	6	15	12
Mass transit construction	454 267	249 186	177 675	27 405	2	2	2	11
Urban mass transit construction	376 161	192 667	161 529	21 965	2	3	1	6
Railroad construction	78 106	56 519	16 147	5 440	7	1	14	48
Other nonbuilding construction, nec	1 008 751	577 319	217 981	213 451	11	14	10	25
Construction work, nsk	443 749	X	X	X	2	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
235310, ELECTRICAL CONTRACTORS											
Total	61 414	641 985	21 680 036	64 260 292	X	61 121 104	38 580 524	3 139 188	1	1	1
Establishments not specializing ..	19 210	262 987	9 240 997	27 645 686	X	26 223 495	16 196 853	1 422 190	2	1	2
Establishments specializing 51 percent or more	42 205	378 997	12 439 040	36 614 610	29 809 496	34 897 612	22 383 672	1 716 998	1	1	2
Single-family houses, detached and attached											
All establishments specializing	19 295	83 347	2 057 912	6 304 066	5 136 203	6 130 365	3 884 085	173 701	3	4	8
Specialization 100 percent	S	25 183	574 879	1 813 276	1 813 276	1 766 705	1 108 288	46 572	6	6	16
Specialization 90 to 99 percent ...	3 095	13 608	345 321	1 025 845	957 823	1 009 444	644 871	16 401	9	9	22
Specialization 80 to 89 percent ...	2 456	11 343	291 171	871 028	710 606	847 395	541 456	23 633	10	11	28
Specialization 70 to 79 percent ...	2 961	12 715	315 363	950 909	691 882	932 745	600 190	S	9	9	S
Specialization 60 to 69 percent ...	2 375	12 515	313 805	954 207	597 435	920 083	567 167	34 124	10	10	7
Specialization 51 to 59 percent ...	846	7 983	217 373	688 800	365 180	653 993	422 113	34 807	15	16	23
Apartment buildings, apartment type condominiums and cooperatives											
All establishments specializing	1 076	8 626	239 491	717 902	554 881	691 225	420 819	26 677	13	13	28
Specialization 100 percent	235	1 305	36 765	118 418	118 418	114 832	64 933	3 586	21	22	9
Specialization 90 to 99 percent ...	181	1 736	43 346	107 091	100 098	104 841	70 453	S	34	30	S
Specialization 80 to 89 percent ...	249	1 302	31 287	107 119	89 035	103 400	55 591	S	22	24	S
Specialization 70 to 79 percent ...	^{*63}	^{*1 315}	^{*39 091}	^{*120 268}	^{*87 066}	^{*117 317}	^{*75 998}	^{*2 951}	46	43	57
Specialization 60 to 69 percent ...	306	2 345	72 114	215 353	134 130	203 058	121 088	^{*12 295}	24	23	54
Specialization 51 to 59 percent ...	^{*41}	^{*623}	^{*16 889}	^{*49 652}	^{*26 135}	^{*47 777}	^{*32 756}	S	60	67	S
Manufacturing and light industrial buildings											
All establishments specializing	4 399	71 401	2 583 302	7 066 902	5 265 869	6 739 972	4 494 599	326 930	3	2	3
Specialization 100 percent	1 286	10 896	377 429	1 052 606	1 052 606	999 339	632 732	53 267	8	8	11
Specialization 90 to 99 percent ...	650	10 754	379 864	1 021 351	954 907	977 770	630 510	43 580	8	8	12
Specialization 80 to 89 percent ...	S	7 097	263 012	678 637	559 617	650 329	453 695	19 308	12	10	16
Specialization 70 to 79 percent ...	844	11 232	443 126	1 236 113	897 476	1 175 136	759 512	60 977	7	6	8
Specialization 60 to 69 percent ...	847	14 667	557 537	1 614 779	1 008 510	1 535 816	1 034 035	78 963	6	5	4
Specialization 51 to 59 percent ...	313	16 766	562 334	1 463 415	792 754	1 392 582	984 115	70 834	6	4	3
Manufacturing and light industrial warehouses											
All establishments specializing	537	3 926	134 232	392 863	318 432	382 598	251 880	10 265	15	14	23
Specialization 100 percent	171	1 293	40 964	121 902	121 902	115 803	87 631	6 100	23	21	33
Specialization 80 to 89 percent ...	S	1 069	37 604	124 683	105 366	122 515	73 623	^{*2 168}	32	31	52
Specialization 70 to 79 percent ...	S	402	16 690	45 756	34 454	44 932	27 618	824	29	26	Z
Specialization 60 to 69 percent ...	^{*38}	^{*380}	12 612	33 367	20 357	32 506	20 504	^{*861}	49	32	58
Specialization 51 to 59 percent ...	S	^{*782}	26 361	67 155	36 353	66 843	42 504	312	40	36	Z
Office buildings											
All establishments specializing	3 772	62 134	2 395 613	6 897 870	5 598 042	6 575 751	4 175 987	322 119	3	3	5
Specialization 100 percent	1 500	19 567	705 331	2 016 727	2 016 727	1 923 007	1 269 954	93 721	7	6	9
Specialization 90 to 99 percent ...	442	7 804	322 645	983 366	906 889	942 173	580 066	41 193	7	6	10
Specialization 80 to 89 percent ...	383	7 769	285 809	794 835	657 234	762 483	488 221	32 352	11	9	14
Specialization 70 to 79 percent ...	635	11 290	432 443	1 263 149	920 641	1 205 293	736 923	57 857	9	9	15
Specialization 60 to 69 percent ...	590	10 212	431 127	1 234 347	768 062	1 171 331	741 012	63 016	9	7	9
Specialization 51 to 59 percent ...	222	5 492	218 257	605 445	328 488	571 464	359 811	33 981	11	9	7
All other commercial buildings, nec											
All establishments specializing	4 044	39 683	1 282 971	3 923 564	3 184 129	3 773 581	2 375 254	149 983	5	5	7
Specialization 100 percent	1 432	13 747	453 009	1 387 367	1 387 367	1 319 076	846 186	68 291	10	9	11
Specialization 90 to 99 percent ...	447	3 781	116 172	342 072	317 520	334 496	219 007	7 576	17	15	17
Specialization 80 to 89 percent ...	758	5 617	180 641	563 757	459 462	545 703	325 095	18 055	17	15	22
Specialization 70 to 79 percent ...	440	5 404	181 053	543 086	393 327	520 053	331 951	23 032	13	14	25
Specialization 60 to 69 percent ...	626	6 279	193 740	579 153	357 861	561 435	344 848	17 718	13	11	13
Specialization 51 to 59 percent ...	340	4 856	158 355	508 129	268 593	492 818	308 168	15 311	15	18	19

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997—Con.

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
235310, ELECTRICAL CONTRACTORS—Con.											
Commercial warehouses											
All establishments specializing	402	3 078	106 967	296 469	241 472	285 041	189 296	11 428	18	15	17
Specialization 100 percent	172	621	18 287	58 575	58 575	54 629	40 554	S	38	36	S
Specialization 90 to 99 percent ...	^{§41}	^{§596}	^{§20} 180	^{§56} 595	^{§54} 140	D	^{§36} 143	D	56	44	D
Specialization 80 to 89 percent ...	^{§71}	483	19 321	60 787	48 630	59 380	39 661	1 407	35	29	19
Specialization 70 to 79 percent ...	^{§59}	^{§605}	^{§20} 787	49 930	37 000	47 540	^{§30} 682	2 390	41	39	38
Specialization 60 to 69 percent ...	^{§38}	432	18 080	45 930	29 362	44 034	28 923	1 896	29	18	5
Specialization 51 to 59 percent ...	^{§21}	^{§341}	^{§10} 312	^{§24} 653	^{§13} 766	D	^{§13} 333	D	55	52	D
Educational buildings											
All establishments specializing	1 556	21 003	704 826	2 089 571	1 539 797	1 974 593	1 185 667	114 978	8	8	13
Specialization 100 percent	S	1 538	58 138	172 548	172 548	163 042	99 320	^{§9} 506	32	31	57
Specialization 90 to 99 percent ...	222	1 516	52 073	163 073	156 623	153 930	93 232	S	34	34	S
Specialization 80 to 89 percent ...	233	3 620	115 661	333 632	275 835	315 639	183 559	17 993	17	13	9
Specialization 70 to 79 percent ...	481	6 739	218 722	679 908	492 124	655 429	402 712	24 478	15	14	22
Specialization 60 to 69 percent ...	288	5 251	184 180	527 854	328 177	493 298	289 763	34 556	14	15	20
Specialization 51 to 59 percent ...	131	2 338	76 052	212 556	114 491	193 254	117 082	19 302	27	24	35
Health care and institutional buildings											
All establishments specializing	537	7 965	294 492	873 680	640 301	819 012	521 737	54 667	13	11	11
Specialization 100 percent	^{§83}	558	19 289	^{§58} 396	^{§58} 396	^{§58} 030	^{§30} 269	366	34	44	19
Specialization 90 to 99 percent ...	^{§23}	^{§35}	^{§24} 558	^{§67} 518	^{§63} 152	^{§63} 261	41 255	4 157	42	40	20
Specialization 80 to 89 percent ...	^{§61}	1 621	58 316	191 209	157 342	170 201	107 027	21 008	38	29	20
Specialization 70 to 79 percent ...	173	1 631	61 847	187 532	136 853	178 434	116 562	^{§9} 098	26	26	43
Specialization 60 to 69 percent ...	177	2 815	100 188	279 507	174 988	264 714	177 396	14 793	23	18	17
Specialization 51 to 59 percent ...	^{§20}	804	30 295	89 518	49 571	84 272	49 227	5 246	14	12	7
Highways, streets, and related work											
All establishments specializing	504	9 678	371 577	1 252 385	1 127 744	1 170 644	686 421	81 742	10	9	8
Specialization 100 percent	394	5 774	211 489	725 168	725 168	679 369	384 418	45 798	14	13	12
Specialization 90 to 99 percent ...	^{§34}	^{§994}	^{§36} 623	^{§123} 596	^{§116} 375	^{§117} 963	^{§69} 165	^{§5} 632	45	44	50
Specialization 80 to 89 percent ...	^{§20}	985	46 157	144 375	119 372	134 028	85 379	10 347	23	15	Z
Specialization 70 to 79 percent ...	^{§28}	1 004	39 053	133 114	97 065	122 865	80 922	10 249	25	9	Z
Specialization 60 to 69 percent ...	^{§9}	^{§300}	^{§10} 988	^{§36} 447	^{§21} 868	^{§34} 424	^{§21} 455	S	68	68	S
Specialization 51 to 59 percent ...	^{§18}	621	27 267	89 686	47 896	81 994	45 081	7 692	24	23	38
Blast furnaces, petroleum refineries, chemical complexes, etc											
All establishments specializing	81	6 662	246 746	626 408	474 687	601 001	406 570	25 407	10	8	9
Specialization 100 percent	15	1 641	68 827	131 276	131 276	126 521	86 054	4 755	10	18	3
Specialization 90 to 99 percent ...	^{§12}	882	30 481	64 156	59 267	62 495	51 739	1 661	10	15	1
Specialization 80 to 89 percent ...	4	418	14 447	47 268	39 741	44 190	30 278	3 078	Z	Z	Z
Specialization 70 to 79 percent ...	5	987	32 400	103 772	77 992	100 182	63 337	3 590	Z	Z	Z
Specialization 60 to 69 percent ...	^{§21}	2 334	81 170	226 602	137 621	218 763	143 784	7 839	28	18	30
Specialization 51 to 59 percent ...	S	401	19 420	53 335	28 790	48 851	31 377	4 484	5	5	Z

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
235310, ELECTRICAL CONTRACTORS		
Total	64 915 068	1
Special trade contractors, total	62 746 291	1
Cable television contractor	596 118	15
Electric power installation and service contractor, including lighting	43 307 099	1
Electronic control systems installation and service, except environmental control	3 000 723	3
Fire and security systems installation and service	4 028 726	3
Highway lighting and signal installation and service	2 143 771	6
Telecommunications installation and service	9 669 855	2
Other construction activities, nec	1 085 913	4
Other business activities secondary to construction activities, total	647 481	7
Engineering services, secondary to construction activities	125 573	13
Other business activities, secondary to construction activities, nec	181 345	7
Retail trade, secondary to construction activities	229 657	13
Wholesale trade, secondary to construction activities	110 906	17
Kind of business activity, nsk	435 384	2

Table 10. Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
235310, ELECTRICAL CONTRACTORS											
Total	61 414	641 985	21 680 036	64 260 292	X	61 121 104	38 580 524	3 139 188	1	1	1
Establishments not specializing	1 799	32 368	1 158 183	3 370 224	X	3 151 724	2 134 543	218 500	5	4	8
Establishments specializing 51 percent or more	59 616	609 617	20 521 855	60 890 072	54 064 745	57 969 384	36 445 983	2 920 688	1	1	1
Cable television contractor											
All establishments specializing	585	7 597	219 199	591 708	566 364	563 534	400 504	28 174	16	15	20
Specialization 100 percent	463	5 592	152 600	417 431	417 431	398 026	273 702	19 405	20	19	27
Specialization 90 to 99 percent	*30	*665	*21 012	*53 482	*50 263	*50 547	*39 505	S	48	53	S
Specialization 80 to 89 percent	82	892	30 580	80 446	68 349	76 875	52 264	*3 571	35	35	65
Specialization 70 to 79 percent	2	D	D	D	D	D	D	D	D	D	D
Specialization 60 to 69 percent	*8	D	D	D	D	D	D	D	D	D	D
Specialization 51 to 59 percent	1	D	D	D	D	D	D	D	D	D	D
Electric power installation and service contractor, including lighting											
All establishments specializing	47 348	475 041	16 017 262	47 076 286	41 268 512	45 051 533	28 080 372	2 024 752	1	1	2
Specialization 100 percent	29 320	179 125	5 243 366	15 839 116	15 839 116	15 305 322	9 538 581	533 794	2	2	4
Specialization 90 to 99 percent	9 356	114 777	3 820 090	11 082 432	10 371 863	10 645 629	6 617 675	436 803	3	3	4
Specialization 80 to 89 percent	3 832	85 953	3 280 137	9 460 527	7 878 722	8 986 856	5 567 564	473 671	3	2	3
Specialization 70 to 79 percent	2 445	47 664	1 808 960	5 297 571	3 898 899	5 002 789	3 132 176	294 782	4	3	3
Specialization 60 to 69 percent	1 625	33 953	1 363 150	3 983 250	2 507 135	3 772 822	2 347 925	210 429	4	4	6
Specialization 51 to 59 percent	770	13 569	501 559	1 413 389	772 778	1 338 116	876 451	75 273	7	6	5
Electronic control systems installation and service, except environmental control											
All establishments specializing	1 392	12 433	404 781	1 206 365	982 765	1 146 432	752 738	59 932	11	9	19
Specialization 100 percent	544	4 793	143 240	405 173	405 173	391 690	251 907	13 483	18	13	19
Specialization 90 to 99 percent	138	1 521	52 259	160 761	153 432	149 749	98 928	S	31	32	S
Specialization 80 to 89 percent	114	*1 541	49 927	138 772	111 897	127 769	88 140	*11 003	47	33	64
Specialization 70 to 79 percent	178	1 809	67 973	195 435	141 497	186 009	118 448	9 425	21	22	30
Specialization 60 to 69 percent	215	1 023	27 564	102 559	64 360	99 198	70 012	3 361	21	19	21
Specialization 51 to 59 percent	203	1 746	63 817	203 664	106 405	192 017	125 303	11 647	19	16	27
Fire and security systems installation and service											
All establishments specializing	3 023	23 087	712 745	2 060 585	1 889 228	1 982 157	1 313 058	78 427	7	7	10
Specialization 100 percent	1 963	14 021	437 088	1 270 720	1 270 720	1 225 888	804 428	44 831	9	9	14
Specialization 90 to 99 percent	417	3 627	111 399	317 015	297 528	304 331	199 048	12 685	21	20	20
Specialization 80 to 89 percent	290	1 791	52 243	157 357	129 287	150 788	93 782	6 569	21	17	29
Specialization 70 to 79 percent	156	989	29 305	78 186	56 563	74 071	38 676	4 116	36	33	34
Specialization 60 to 69 percent	71	1 245	41 202	114 239	70 546	108 886	90 794	5 352	24	23	33
Specialization 51 to 59 percent	126	1 415	41 509	123 068	64 584	118 193	86 331	*4 875	33	34	45
Highway lighting and signal installation and service											
All establishments specializing	670	12 087	457 264	1 556 787	1 334 318	1 444 343	832 264	112 444	10	10	13
Specialization 100 percent	384	5 345	192 556	666 918	666 918	628 603	348 995	38 315	14	14	12
Specialization 90 to 99 percent	*59	1 632	70 425	257 098	240 010	231 376	128 210	*25 722	37	35	47
Specialization 80 to 89 percent	*69	1 405	53 053	164 077	134 507	149 753	86 110	14 324	32	29	26
Specialization 70 to 79 percent	*43	1 372	54 053	178 651	130 515	165 562	111 485	13 089	25	14	Z
Specialization 60 to 69 percent	*44	*899	*26 879	*106 988	*64 557	*100 042	*61 918	*6 946	47	47	44
Specialization 51 to 59 percent	*71	1 434	60 296	183 056	97 811	169 007	95 545	14 049	27	23	30
Telecommunications installation and service											
All establishments specializing	5 250	74 617	2 573 757	7 963 771	7 588 988	7 364 477	4 809 350	599 294	3	3	4
Specialization 100 percent	4 308	57 902	1 984 418	6 211 289	6 211 289	5 772 521	3 724 273	438 768	3	3	3
Specialization 90 to 99 percent	294	6 312	225 071	660 625	629 437	602 775	414 816	57 850	13	15	30
Specialization 80 to 89 percent	190	2 910	81 094	271 799	231 155	260 645	179 994	11 154	22	20	17
Specialization 70 to 79 percent	122	1 862	64 497	195 908	143 432	187 517	130 870	8 391	21	22	38
Specialization 60 to 69 percent	256	3 559	140 134	412 333	258 709	349 307	244 048	63 026	19	17	12
Specialization 51 to 59 percent	79	2 071	78 543	211 817	114 966	191 713	115 350	20 103	22	22	28

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
235310, ELECTRICAL CONTRACTORS										
United States	64 260 292	37 130	45 208 916	11 206	5 427 879	23 864	13 623 500	1	1	3
Alabama	671 183	389	360 270	222	113 214	491	197 699	4	7	4
Alaska	282 414	146	194 198	91	³ 37 875	74	50 342	10	11	50
Arizona	1 062 645	657	769 055	83	104 097	372	189 493	5	8	Z
Arkansas	340 366	309	198 035	84	50 623	141	91 708	7	14	29
California	7 126 678	3 343	5 314 624	320	231 444	2 646	1 580 610	2	2	5
Colorado	1 514 686	855	1 087 997	115	54 659	478	372 030	4	5	2
Connecticut	879 835	760	649 944	173	65 419	322	164 472	4	7	5
Delaware	279 624	88	133 529	161	56 368	147	89 728	7	14	10
District of Columbia	237 300	³ 31	6 508	359	210 758	9	20 033	4	22	4
Florida	3 367 789	2 186	2 338 557	266	176 816	1 584	852 416	2	4	11
Georgia	1 913 674	917	1 292 769	345	135 911	939	484 994	4	5	11
Hawaii *	297 240	181	219 510	³ 36	26 608	75	51 122	5	13	Z
Idaho	267 405	226	200 982	105	27 574	158	³ 38 848	8	10	2
Illinois	3 276 519	1 701	2 486 045	235	151 217	835	639 258	2	3	13
Indiana	1 380 977	871	1 082 262	330	121 903	307	176 812	4	6	8
Iowa	608 630	464	444 658	210	92 442	187	71 530	4	7	10
Kansas	558 598	313	330 120	179	86 953	230	141 525	6	13	16
Kentucky	833 535	424	404 016	400	164 166	353	265 354	5	7	22
Louisiana	1 121 745	633	835 963	178	73 927	316	211 855	7	10	12
Maine	227 161	230	131 882	88	18 528	161	⁷ 76 751	11	23	12
Maryland	1 250 278	874	882 428	242	167 817	458	200 032	3	5	5
Massachusetts	1 545 460	1 054	1 101 779	319	82 383	724	361 298	4	4	18
Michigan	2 703 326	1 360	2 218 020	181	72 727	797	412 579	7	9	18
Minnesota	1 230 862	949	991 966	218	66 665	350	172 231	3	3	14
Mississippi	372 427	285	236 666	164	90 792	168	44 970	9	13	24
Missouri	1 277 285	648	864 876	209	80 421	342	331 988	3	6	9
Montana	156 732	129	87 033	⁵ 52	12 884	121	56 815	17	26	6
Nebraska	405 634	344	241 941	127	51 502	145	112 191	4	7	14
Nevada	844 794	218	548 293	191	191 257	181	105 244	4	7	3
New Hampshire	226 832	242	151 510	329	46 135	162	29 188	13	19	14
New Jersey	2 066 894	1 526	1 333 497	412	149 339	1 067	584 059	3	5	7
New Mexico	399 517	259	230 657	188	63 662	242	105 198	5	17	12
New York	4 867 752	2 027	3 232 787	361	184 532	1 821	1 450 433	2	3	10
North Carolina	1 949 679	1 377	1 330 623	401	196 777	890	422 279	4	5	20
North Dakota	145 940	174	104 951	96	28 459	⁴ 48	S	11	18	7
Ohio	2 449 332	1 314	1 783 857	387	196 905	809	468 570	3	4	5
Oklahoma	527 141	476	446 760	127	30 543	357	49 839	6	8	15
Oregon	1 025 737	561	789 474	106	159 914	211	76 349	3	5	1
Pennsylvania	2 552 851	1 512	1 893 144	530	161 340	991	498 367	4	5	20
Rhode Island	206 037	244	132 480	97	32 794	⁶ 61	40 764	7	9	3
South Carolina	732 101	504	497 603	334	115 260	403	119 238	4	6	3
South Dakota	154 558	148	117 116	94	³ 32 279	76	⁵ 164	11	8	42
Tennessee	1 168 923	602	814 032	246	188 189	282	166 702	7	7	33
Texas	4 288 779	2 108	2 877 060	423	381 454	1 438	1 030 265	2	3	7
Utah	520 627	292	386 822	53	20 208	251	113 597	6	8	1
Vermont	99 283	96	57 160	98	15 664	114	26 459	12	33	10
Virginia	1 692 373	1 006	1 065 819	619	301 590	571	324 964	3	5	9
Washington	1 627 828	873	1 196 258	218	175 387	444	256 184	3	5	4
West Virginia	225 282	190	102 007	177	77 480	102	⁴ 45 795	10	12	16
Wisconsin	1 181 315	887	915 090	170	40 674	347	225 552	4	5	9
Wyoming	116 715	129	96 287	⁶ 61	12 347	66	8 081	10	13	17

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e, office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **All other nonresidential buildings.** Includes nonresidential buildings that are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military non-building such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Masonry and Stone Contractors

1997

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1997 Economic Census

Construction

Industry Series



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U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
235410 174100	Masonry & stone contractors Masonry, stone setting, & oth stone work special trade contrt	22 614 22 614	164 236 164 236	4 068 498 4 068 498	12 231 875 12 231 875	11 438 477 11 438 477	7 593 673 7 593 673	3 910 609 3 910 609	231 463 231 463

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—	
		All	Con- struction workers	January to March	April to June	July to September	October to December	All employees	Construction workers		
											A
235410, MASONRY & STONE CONTRACTORS											
United States	22 614	164 236	145 919	131 511	148 587	155 867	147 712	4 068 498	3 348 713	1	
Alabama	385	3 239	2 893	2 924	3 129	2 652	2 868	62 306	50 506	7	
Alaska	*22	128	112	19	117	166	147	3 136	2 573	24	
Arizona	336	4 106	3 793	3 404	3 802	4 033	3 931	95 468	81 961	4	
Arkansas	201	1 127	1 014	925	994	1 041	1 097	20 095	16 745	10	
California	1 291	9 967	8 789	8 351	8 676	8 973	9 155	265 479	217 764	4	
Colorado	392	3 292	2 994	2 671	3 003	3 123	3 182	86 888	71 251	6	
Connecticut	294	1 512	1 348	1 053	1 316	1 548	1 474	42 275	34 002	11	
Delaware	137	793	652	684	662	636	627	18 158	13 943	11	
District of Columbia	7	S	S	S	S	S	S	S	S	S	
Florida	833	7 713	6 905	6 831	6 615	7 127	7 047	162 498	132 314	5	
Georgia	510	3 908	3 456	3 251	3 608	3 707	3 258	76 776	61 850	8	
Hawaii *	74	343	289	298	233	329	297	9 759	7 993	10	
Idaho	63	517	477	405	466	526	512	14 485	12 395	6	
Illinois	1 115	8 223	7 314	6 171	7 711	7 914	7 461	274 565	230 224	3	
Indiana	652	4 670	4 172	3 859	4 234	4 358	4 238	112 965	96 406	4	
Iowa	229	1 623	1 448	1 290	1 463	1 519	1 520	41 482	34 751	12	
Kansas	198	1 413	1 315	1 323	1 338	1 405	1 194	32 507	28 393	11	
Kentucky	383	3 313	3 060	3 060	3 147	3 065	2 968	64 638	56 240	5	
Louisiana	180	2 014	1 729	1 590	1 804	1 804	1 720	49 279	36 336	14	
Maine	140	546	466	293	561	513	496	10 782	8 707	11	
Maryland	547	5 850	5 191	4 855	5 146	5 530	5 234	137 572	110 699	8	
Massachusetts	487	3 244	2 750	1 968	2 772	3 345	2 914	103 568	82 516	5	
Michigan	996	6 245	5 551	4 299	5 840	6 301	5 766	188 363	158 633	4	
Minnesota	498	3 118	2 649	2 058	2 804	3 008	2 728	107 305	83 378	5	
Mississippi	171	977	900	914	982	927	777	14 568	11 622	11	
Missouri	515	3 867	3 473	3 158	3 593	3 640	3 500	106 841	89 840	6	
Montana	67	350	333	288	365	363	316	6 733	6 014	19	
Nebraska	206	1 167	1 089	1 051	1 107	1 150	1 049	24 809	22 104	14	
Nevada	132	2 458	2 274	2 171	2 235	2 292	2 399	55 965	48 906	9	
New Hampshire	116	662	585	518	557	633	631	17 927	15 901	11	
New Jersey	865	4 427	3 771	3 226	3 989	4 266	3 602	124 444	100 139	6	
New Mexico	97	917	810	699	842	893	805	16 271	13 046	9	
New York	1 281	7 960	6 530	5 029	6 661	7 359	7 072	225 530	167 193	4	
North Carolina	1 415	8 737	7 977	7 985	8 128	8 283	7 511	166 049	142 015	4	
North Dakota	37	295	270	218	294	321	247	6 171	4 957	9	
Ohio	1 212	8 475	7 485	6 268	7 857	8 328	7 486	222 883	187 440	3	
Oklahoma	223	1 676	1 546	1 413	1 628	1 341	1 802	33 580	28 472	7	
Oregon	212	990	897	811	955	937	886	27 974	23 884	8	
Pennsylvania	1 439	10 349	9 097	7 510	9 304	10 139	9 436	269 922	216 793	4	
Rhode Island	109	604	511	408	523	567	547	21 294	17 459	10	
South Carolina	573	3 109	2 813	2 875	2 911	2 803	2 665	48 604	41 752	7	
South Dakota	50	505	485	352	505	617	469	10 850	10 156	24	
Tennessee	427	3 947	3 644	3 628	3 667	3 766	3 512	88 820	73 103	6	
Texas	969	9 335	8 398	7 574	8 413	8 986	8 619	197 204	162 428	12	
Utah	277	1 382	1 269	1 277	1 174	1 389	1 235	32 704	28 946	8	
Vermont	95	S	S	S	267	339	7 805	6 064	6 064	S	
Virginia	949	7 718	6 951	6 993	7 239	7 073	6 499	155 184	128 931	5	
Washington	391	2 123	1 837	1 555	2 061	2 105	2 105	70 266	58 244	8	
West Virginia	192	851	773	780	840	793	679	13 659	12 073	16	
Wisconsin	580	3 831	3 314	2 645	3 347	3 800	3 466	116 612	96 846	5	
Wyoming	45	225	204	255	180	191	192	4 641	4 044	12	

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
235410. MASONRY & STONE CONTRACTORS										
United States	12 231 875	11 438 477	7 593 673	3 910 609	793 398	195 487	231 463	1 745 715	1	2
Alabama	167 455	160 181	97 992	67 525	7 274	3 162	3 155	21 953	4	13
Alaska	D	9 522	6 390	3 149	D	157	167	1 848	14	23
Arizona	291 282	281 342	149 750	131 883	9 939	3 084	4 999	33 090	3	14
Arkansas	65 794	63 928	39 795	24 555	1 867	1 198	794	11 975	12	21
California	847 848	821 312	516 330	312 304	26 536	13 025	12 271	103 090	4	7
Colorado	235 800	226 819	139 864	87 077	8 981	3 509	5 046	38 288	5	17
Connecticut	136 622	126 140	87 380	39 949	10 482	2 375	2 021	15 253	11	20
Delaware	55 331	53 395	36 215	17 180	1 936	1 246	1 018	7 766	10	18
District of Columbia	D	D	S	S	D	5	S	S	D	S
Florida	514 124	464 995	317 274	147 770	49 129	7 350	8 994	56 675	6	8
Georgia	269 562	240 277	145 337	97 310	29 285	4 339	3 940	32 838	9	18
Hawaii *	28 874	28 701	23 501	5 387	S	1 023	^s 294	4 299	12	45
Idaho	41 950	41 165	17 814	23 485	^s 785	603	680	6 566	9	6
Illinois	750 905	711 132	506 024	207 939	39 773	10 873	12 867	97 515	3	8
Indiana	310 059	285 482	201 341	84 804	^s 24 577	4 502	9 013	50 377	4	15
Iowa	116 369	113 687	79 908	37 194	^s 2 682	420	4 907	27 687	11	16
Kansas	86 151	83 246	57 573	25 673	2 905	1 489	1 859	16 813	12	18
Kentucky	175 530	167 165	129 060	39 694	S	2 945	4 628	25 228	4	15
Louisiana	161 425	159 023	84 703	^s 74 637	2 402	4 460	^s 3 817	^s 33 594	39	55
Maine	30 277	29 303	16 644	12 659	^s 974	637	962	6 168	13	20
Maryland	362 996	341 781	219 163	124 196	21 215	5 562	5 550	49 007	6	13
Massachusetts	321 607	289 711	193 394	96 335	31 896	7 519	4 439	42 182	6	12
Michigan	549 992	519 111	332 763	188 650	30 881	7 538	11 917	77 816	4	10
Minnesota	324 229	311 942	207 018	105 280	12 287	4 306	6 437	47 174	5	10
Mississippi	37 882	37 416	27 526	S	^s 467	660	498	S	7	14
Missouri	292 610	282 654	199 820	83 166	9 956	2 857	5 145	43 446	5	7
Montana	20 772	20 661	13 823	7 000	111	234	329	3 012	21	14
Nebraska	68 993	66 700	49 356	17 768	^s 2 293	1 074	2 683	11 745	16	24
Nevada	180 082	178 693	103 784	75 245	S	1 760	1 977	21 357	9	15
New Hampshire	64 263	57 903	34 175	23 773	6 361	1 296	^s 2 092	10 877	14	40
New Jersey	453 074	409 695	272 362	137 853	43 379	7 004	8 843	74 481	7	12
New Mexico	51 855	47 939	28 612	19 369	3 916	825	1 291	8 529	6	29
New York	807 385	696 324	474 419	227 279	111 060	13 050	10 820	95 884	5	9
North Carolina	494 212	459 511	330 516	133 727	34 701	5 825	11 280	67 576	6	10
North Dakota	16 520	16 267	10 414	5 853	^s 254	213	S	2 550	13	S
Ohio	660 511	614 395	421 445	199 255	46 116	13 712	12 244	94 381	4	7
Oklahoma	96 183	88 205	71 122	17 953	7 978	954	1 533	14 445	6	8
Oregon	92 222	89 977	49 797	40 180	2 246	1 748	2 089	14 823	9	27
Pennsylvania	835 472	778 935	526 520	256 485	56 536	12 223	17 198	144 987	4	9
Rhode Island	70 692	69 305	37 878	31 427	1 386	2 139	^s 1 132	^s 6 109	7	55
South Carolina	134 290	121 603	96 791	24 813	12 687	2 336	2 110	16 667	9	16
South Dakota	31 153	30 035	19 591	10 444	S	^s 546	782	5 209	27	23
Tennessee	219 404	211 823	144 187	69 537	7 581	2 735	5 279	41 030	5	14
Texas	626 299	567 388	367 274	203 512	58 910	14 548	12 273	86 465	14	16
Utah	103 750	100 345	58 282	42 063	3 405	1 290	1 794	14 932	10	22
Vermont	23 343	22 393	13 609	8 784	^s 950	264	^s 796	3 528	5	41
Virginia	382 951	366 306	254 032	115 789	S	7 611	8 744	63 117	4	14
Washington	216 769	204 478	135 026	71 090	^s 12 290	3 226	2 760	23 986	7	12
West Virginia	42 313	38 018	24 540	13 478	4 294	751	760	4 085	16	26
Wisconsin	338 448	316 336	213 232	104 686	^s 22 112	5 132	6 700	57 127	4	12
Wyoming	D	D	8 710	4 815	D	148	221	2 594	D	17

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
235410, MASONRY & STONE CONTRACTORS			235410, MASONRY & STONE CONTRACTORS— Con.		
Number of establishments in business during year	22 614	1	Selected costs—Con.		
Number of proprietors and working partners	12 865	3	Cost of selected power, fuels, and lubricants	160 506	2
Total number of employees	164 236	1	Cost of electricity	18 187	5
Number of construction workers in March	131 511	1	Cost of natural gas and manufactured gas	6 110	6
Number of construction workers in May	148 587	1	Cost of gasoline and diesel fuel	128 561	2
Number of construction workers in August	155 867	1	Cost of on-highway use of gasoline and diesel fuel	106 757	2
Number of construction workers in November	147 712	1	Cost of off-highway use of gasoline and diesel fuel	21 804	8
Average number of construction workers	145 919	1	Cost of all other fuels and lubricants	7 648	6
Number of other employees in March	18 136	2	Rental cost for machinery, equipment, and buildings	195 487	2
Number of other employees in May	18 212	2	Rental cost for machinery and equipment	142 087	2
Number of other employees in August	18 531	2	Rental cost for buildings	53 400	4
Number of other employees in November	18 388	2	Selected purchased services	226 964	2
Average number of other employees	18 317	2	Purchased communication services	78 458	3
Payroll, all employees	4 068 498	1	Cost of repairs to buildings and other structures	11 773	5
Payroll, construction workers	3 348 713	1	Cost of repairs to machinery and equipment	136 734	3
Payroll, other employees	719 785	2	Value of construction work	12 231 875	1
First-quarter payroll, all employees	813 595	1	Value of construction work on government owned projects ..	2 614 169	3
Fringe benefits, all employees	1 045 670	1	Value of construction work on federally owned projects ..	467 937	9
Legally required expenditures	724 557	1	Value of construction work on state and locally owned projects	2 146 232	2
Voluntary expenditures	321 113	2	Value of construction work on privately owned projects	9 617 705	1
Value of business done	12 297 679	1	Beginning-of-year gross book value of depreciable assets	1 562 962	2
Value of construction work	12 231 875	1	Capital expenditures, other than land	231 463	2
Value of construction work subcontracted in from others ...	8 790 683	2	Retirements and disposition of depreciable assets	48 710	4
Other business receipts	65 804	11	End-of-year gross book value of depreciable assets	1 745 715	2
Net value of construction	11 438 477	1	Depreciation charges during year	201 793	2
Value added	7 593 673	1	Number of establishments with inventories	3 056	5
Selected costs	4 704 007	2	Value of construction work for establishments with inventories ..	3 377 570	4
Cost of materials, components, and supplies	3 750 102	2	End of 1997, inventories of materials and supplies	76 813	6
Cost of construction work subcontracted out to others	793 398	5	End of 1996, inventories of materials and supplies	70 666	6
			Number of establishments with no inventories	11 033	3
			Value of construction work for establishments with no inventories	5 988 116	2
			Number of establishments not reporting inventories	8 525	3
			Value of construction work for establishments not reporting inventories	2 866 189	3

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
	A	B	C	D	E	F	G	H	I	B	F	
235410. MASONRY & STONE CONTRACTORS												
Total	22 614	164 236	4 068 498	12 297 679	12 231 875	11 438 477	7 593 673	3 910 609	793 398	1	1	
Establishments with 1 to 4 employees	14 296	29 073	479 224	2 031 907	2 021 561	1 867 601	1 290 428	587 519	153 959	3	3	
Establishments with 5 to 9 employees	4 765	30 114	579 557	1 788 115	1 778 310	1 631 695	1 134 924	506 575	146 616	4	4	
Establishments with 10 to 19 employees	1 925	25 562	628 161	1 792 428	1 786 489	1 684 683	1 169 029	521 593	101 806	4	4	
Establishments with 20 to 49 employees	1 181	35 491	1 026 830	2 943 664	2 927 557	2 747 797	1 784 019	979 884	179 761	3	4	
Establishments with 50 to 99 employees	310	21 085	682 084	1 866 180	1 846 087	1 735 960	1 106 580	649 473	110 128	2	1	
Establishments with 100 to 249 employees	116	15 695	469 975	1 329 612	1 326 321	1 240 122	793 335	450 078	86 199	7	5	
Establishments with 250 to 499 employees	20	D	D	D	D	D	D	D	D	D	D	
Establishments with 500 to 999 employees	1	D	D	D	D	D	D	D	D	D	D	
Establishments with 1,000 employees or more	—	—	—	—	—	—	—	—	—	—	—	

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235410. MASONRY & STONE CONTRACTORS											
Total	22 614	164 236	4 068 498	12 297 679	12 231 875	11 438 477	7 593 673	3 910 609	793 398	1	1
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	1 716	2 261	19 904	64 156	64 156	61 910	47 969	13 941	S	11	9
Establishments with value of business done \$50,000 to \$99,999	3 832	7 734	89 818	282 319	281 771	270 930	209 861	61 616	10 841	7	6
Establishments with value of business done \$100,000 to \$249,999	7 487	24 694	379 601	1 184 567	1 183 442	1 132 737	829 937	303 926	50 705	4	4
Establishments with value of business done \$250,000 to \$499,999	3 783	21 423	419 469	1 305 790	1 301 858	1 228 517	844 950	387 498	73 342	5	5
Establishments with value of business done \$500,000 to \$999,999	2 059	20 049	462 311	1 434 353	1 422 670	1 325 108	911 250	425 542	97 562	5	5
Establishments with value of business done \$1,000,000 to \$2,499,999	1 404	27 373	752 184	2 175 889	2 160 362	2 016 667	1 343 355	688 839	143 695	3	4
Establishments with value of business done \$2,500,000 to \$4,999,999	587	22 451	678 833	2 039 417	2 027 923	1 892 481	1 220 583	683 392	135 442	3	3
Establishments with value of business done \$5,000,000 to \$9,999,999	266	19 007	618 556	1 785 012	1 766 787	1 659 842	1 058 425	619 642	106 945	6	6
Establishments with value of business done \$10,000,000 or more	120	18 240	641 756	2 008 264	2 005 007	1 833 116	1 113 849	722 524	171 891	Z	Z

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
235410, MASONRY & STONE CONTRACTORS								
Total	12 231 875	8 712 070	1 899 837	1 501 139	1	2	3	3
Building construction, total	11 223 557	8 359 628	1 773 968	1 089 960	1	2	2	3
Single-family houses, detached and attached	3 899 882	3 153 278	474 808	271 795	2	3	6	7
Single-family houses, detached	3 221 702	2 596 964	395 244	229 494	3	3	6	8
Single-family houses, attached	678 180	556 314	79 565	42 301	8	9	12	13
Apartment buildings, apartment type condominiums and cooperatives	565 804	363 767	77 274	124 763	4	6	8	6
Manufacturing and light industrial buildings	658 763	390 835	108 114	159 813	6	9	5	8
Manufacturing and light industrial warehouses	238 155	176 914	35 885	25 356	5	5	13	5
Hotels and motels	238 609	193 739	22 627	22 244	4	5	7	11
Office buildings	1 046 990	722 810	169 825	154 355	3	4	9	4
All other commercial buildings, nec	1 254 289	1 023 944	153 381	76 963	3	4	7	15
Commercial warehouses	348 670	294 221	37 025	17 424	7	8	14	10
Religious buildings	351 219	199 314	93 158	58 747	5	4	13	8
Educational buildings	1 559 028	1 058 695	399 433	100 900	3	3	4	6
Health care and institutional buildings	443 190	303 922	96 937	42 330	3	4	4	13
Public safety buildings	319 391	256 988	46 331	16 072	5	5	20	12
Amusement, social, and recreational buildings	188 773	142 222	37 371	9 181	4	5	7	7
All other nonresidential buildings	110 794	78 979	21 799	10 017	10	12	10	12
Nonbuilding construction, total	889 490	352 442	125 869	411 179	8	19	17	3
Blast furnaces, petroleum refineries, chemical complexes, etc	437 016	77 550	65 179	294 286	8	19	29	3
Other nonbuilding construction, nec	452 474	274 891	60 690	116 893	15	24	17	6
Construction work, nsk	118 829	X	X	X	10	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
235410, MASONRY & STONE CONTRACTORS											
Total	22 614	164 236	4 068 498	12 231 875	X	11 438 477	7 593 673	793 398	1	1	5
Establishments not specializing ..	4 525	56 779	1 570 384	4 403 049	X	4 173 227	2 768 081	229 822	3	2	6
Establishments specializing 51 percent or more	18 088	107 457	2 498 114	7 828 826	6 720 890	7 265 250	4 825 591	563 576	1	2	6
Single-family houses, detached and attached											
All establishments specializing	14 391	56 262	1 074 958	3 591 345	3 262 142	3 337 360	2 270 842	253 985	2	3	11
Specialization 100 percent	9 142	32 226	556 698	1 934 491	1 934 491	1 789 792	1 259 090	144 699	4	4	18
Specialization 90 to 99 percent ...	2 041	8 953	184 262	576 900	536 045	532 773	355 274	44 127	7	7	17
Specialization 80 to 89 percent ...	1 214	6 226	147 473	478 437	391 286	446 278	287 157	32 159	8	8	24
Specialization 70 to 79 percent ...	1 004	4 496	96 239	316 021	229 935	299 825	192 348	16 195	10	10	19
Specialization 60 to 69 percent ...	734	3 324	67 063	212 552	130 226	198 244	129 732	14 308	12	11	22
Specialization 51 to 59 percent ...	S	S	23 224	72 943	40 158	70 447	47 242	S	S	20	S
Manufacturing and light industrial buildings											
All establishments specializing	247	3 908	109 165	351 938	306 744	328 766	234 449	23 172	10	13	4
Specialization 100 percent	90	2 000	55 403	184 266	184 266	163 220	119 325	21 046	7	5	3
Specialization 90 to 99 percent ...	40	330	10 800	28 069	27 059	27 340	17 415	730	29	31	21
Specialization 80 to 89 percent ...	8	140	44 465	*10 219	*8 342	D	*7 166	D	48	40	D
Specialization 70 to 79 percent ...	42	S	S	S	S	D	S	232	S	S	6
Specialization 60 to 69 percent ...	59	664	12 653	S	S	S	S	S	21	S	S
Specialization 51 to 59 percent ...	7	169	4 007	13 102	7 324	D	7 751	D	33	24	D
Office buildings											
All establishments specializing	322	5 148	147 673	465 039	365 740	427 391	262 150	37 648	9	8	26
Specialization 100 percent	113	1 150	33 605	106 905	106 905	93 268	65 157	*13 637	15	20	63
Specialization 90 to 99 percent ...	24	*174	*4 627	S	S	S	S	1 458	68	S	9
Specialization 80 to 89 percent ...	84	1 267	34 010	112 184	90 662	99 627	69 972	12 557	25	19	37
Specialization 70 to 79 percent ...	41	950	30 768	82 967	59 269	81 247	41 737	1 720	11	10	6
Specialization 60 to 69 percent ...	55	1 304	37 067	113 298	71 690	106 794	53 441	6 505	20	9	1
Specialization 51 to 59 percent ...	6	303	7 596	23 995	13 032	22 224	15 971	1 771	Z	Z	Z
All other commercial buildings, nec											
All establishments specializing	1 089	10 287	232 755	675 649	556 763	641 304	408 321	34 345	7	6	19
Specialization 100 percent	540	3 473	70 147	217 544	217 544	205 466	120 438	*12 079	14	12	40
Specialization 90 to 99 percent ...	76	937	21 295	52 741	49 791	48 686	31 712	*4 056	19	14	44
Specialization 80 to 89 percent ...	142	1 560	35 438	123 638	102 124	113 431	73 029	10 207	20	20	35
Specialization 70 to 79 percent ...	130	2 101	51 548	148 379	108 261	143 443	98 028	4 935	14	12	37
Specialization 60 to 69 percent ...	165	1 416	33 274	82 689	51 450	80 488	52 230	2 201	18	17	23
Specialization 51 to 59 percent ...	36	800	21 053	50 658	27 592	49 791	32 883	*867	17	17	46
Educational buildings											
All establishments specializing	455	12 297	386 453	1 025 488	757 480	970 662	647 799	54 825	3	3	13
Specialization 100 percent	93	1 219	33 142	81 010	81 010	79 935	52 529	1 074	8	9	28
Specialization 90 to 99 percent ...	52	1 889	61 877	162 779	150 484	159 098	97 326	3 682	4	4	37
Specialization 80 to 89 percent ...	69	2 276	73 229	183 692	149 673	176 019	110 042	7 673	8	7	23
Specialization 70 to 79 percent ...	76	2 078	58 733	150 183	109 507	143 650	100 605	*6 533	9	11	54
Specialization 60 to 69 percent ...	114	2 854	90 179	265 439	165 934	239 484	173 332	25 955	9	7	21
Specialization 51 to 59 percent ...	51	1 981	69 293	182 384	100 874	172 476	113 965	9 907	7	6	4

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
235410, MASONRY & STONE CONTRACTORS		
Total	12 297 679	1
Special trade contractors, total	11 771 296	1
Concrete contractor, except paving of roads, highways, and streets	253 968	5
Foundation contractor: brick, block, or stone	1 005 770	5
Marble, granite, and slate contractor: exterior	192 892	5
Masonry contractor: brick or block	8 069 093	2
Masonry contractor: pointing, cleaning, or caulking	766 766	3
Refractory brick contractor	720 856	5
Stonework contractor	761 952	9
Other construction activities, nec	458 966	6
Other business activities secondary to construction activities, total	65 381	11
Other business activities, secondary to construction activities, nec	65 381	11
Kind of business activity, nsk	2 037	28

Table 10. Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
235410, MASONRY & STONE CONTRACTORS											
Total	22 614	164 236	4 068 498	12 231 875	X	11 438 477	7 593 673	793 398	1	1	5
Establishments not specializing	2 702	14 002	313 794	1 110 319	X	956 751	608 240	153 568	6	6	18
Establishments specializing 51 percent or more	19 912	150 234	3 754 705	11 121 556	10 232 467	10 481 726	6 985 432	639 830	1	1	4
Foundation contractor: brick, block, or stone											
All establishments specializing	2 185	11 225	229 086	789 845	710 226	741 945	471 466	47 900	7	6	15
Specialization 100 percent	1 368	7 632	156 301	498 023	498 023	471 790	312 479	26 234	9	8	21
Specialization 90 to 99 percent	194	887	18 022	75 153	69 867	70 745	41 452	4 409	24	22	6
Specialization 80 to 89 percent	147	458	6 517	S	S	S	S	S	35	S	S
Specialization 70 to 79 percent	191	732	13 171	47 584	34 660	46 860	32 109	723	22	20	14
Specialization 60 to 69 percent	139	652	11 019	48 052	29 438	43 427	26 317	^{§4} 625	24	27	53
Specialization 51 to 59 percent	147	863	24 056	72 743	39 113	69 834	40 751	2 909	17	15	23
Marble, granite, and slate contractor: exterior											
All establishments specializing	116	1 778	58 505	178 003	131 853	168 017	114 756	9 986	10	6	8
Specialization 100 percent	70	568	12 782	33 550	33 550	32 554	22 587	^{§996}	29	22	51
Specialization 90 to 99 percent	^{§5}	D	D	D	15 628	D	D	D	D	D	D
Specialization 80 to 89 percent	1	D	D	D	D	D	D	D	D	D	D
Specialization 70 to 79 percent	6	191	6 365	17 241	D	16 694	11 370	547	1	1	Z
Specialization 60 to 69 percent	27	501	18 705	59 829	37 553	57 161	36 412	2 669	15	11	22
Specialization 51 to 59 percent	^{§6}	317	12 014	34 535	18 848	D	28 230	D	12	10	D
Masonry contractor: brick or block											
All establishments specializing	15 293	115 448	2 813 485	8 172 407	7 634 571	7 766 833	5 142 954	405 574	2	2	6
Specialization 100 percent	11 486	78 247	1 831 989	5 365 526	5 365 526	5 110 410	3 373 714	255 116	2	2	7
Specialization 90 to 99 percent	1 195	15 559	423 063	1 138 505	1 072 428	1 091 185	715 805	47 319	4	3	12
Specialization 80 to 89 percent	913	8 527	230 101	634 678	524 180	614 584	407 916	20 094	6	6	9
Specialization 70 to 79 percent	960	6 620	153 239	446 430	324 563	431 733	287 774	14 697	7	7	8
Specialization 60 to 69 percent	576	4 522	115 132	373 154	232 805	344 919	248 910	^{§28} 235	11	12	41
Specialization 51 to 59 percent	164	1 991	59 961	214 114	115 070	174 001	108 835	40 113	7	6	7
Masonry contractor: pointing, cleaning, or caulking											
All establishments specializing	749	7 280	240 505	693 041	591 013	605 357	453 999	87 684	5	4	8
Specialization 100 percent	420	3 561	110 188	308 460	308 460	273 098	212 236	35 361	8	6	18
Specialization 90 to 99 percent	63	738	24 777	62 736	59 182	57 598	38 127	5 137	15	14	27
Specialization 80 to 89 percent	58	735	24 945	75 982	62 152	69 132	51 939	6 850	11	11	26
Specialization 70 to 79 percent	84	892	32 114	108 780	80 595	88 108	67 469	20 672	11	9	1
Specialization 60 to 69 percent	99	837	30 104	90 603	55 152	73 053	50 473	17 549	15	8	4
Specialization 51 to 59 percent	25	517	18 376	46 481	25 473	44 367	33 755	2 114	17	15	16
Refractory brick contractor											
All establishments specializing	326	8 346	256 924	759 693	687 569	717 314	491 448	42 379	6	6	3
Specialization 100 percent	176	4 815	151 513	465 791	465 791	436 501	303 891	29 290	5	5	3
Specialization 90 to 99 percent	18	436	17 234	46 316	44 087	44 001	22 298	2 315	19	13	17
Specialization 80 to 89 percent	^{§39}	S	24 806	67 717	58 291	65 123	48 603	2 594	S	30	19
Specialization 70 to 79 percent	16	807	28 688	90 018	66 681	87 610	50 961	2 408	23	33	Z
Specialization 60 to 69 percent	10	959	21 105	50 713	32 554	47 484	41 080	3 229	4	6	Z
Specialization 51 to 59 percent	^{§67}	392	13 578	39 138	20 165	36 595	24 614	S	14	15	S
Stonework contractor											
All establishments specializing	1 225	6 114	155 552	526 535	475 203	480 292	309 630	46 243	9	14	14
Specialization 100 percent	784	3 243	77 477	294 588	294 588	274 211	158 995	20 377	13	23	25
Specialization 90 to 99 percent	^{§64}	676	17 146	58 246	54 923	49 877	39 845	8 369	21	18	28
Specialization 80 to 89 percent	177	792	20 266	60 523	50 215	55 401	40 251	5 122	32	30	23
Specialization 70 to 79 percent	81	748	18 446	59 117	43 872	50 800	39 296	8 317	25	24	38
Specialization 60 to 69 percent	110	^{§226}	^{§4} 296	14 653	9 433	13 657	^{§7} 967	^{§996}	40	38	42
Specialization 51 to 59 percent	9	431	17 923	39 408	22 172	36 347	23 277	3 061	6	9	26

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Value of construction work	Value of construction work	Value of construction work	Value of construction work	Value of construction work	A	C	E	
	A	B	C	D	E	F	G			
235410, MASONRY & STONE CONTRACTORS										
United States	12 231 875	15 612	8 900 604	2 744	1 000 422	6 864	2 330 850	1	2	3
Alabama	135 457	230	81 792	46	15 914	155	37 750	6	11	24
Alaska	D	^{\$15}	D	^{\$14}	D	^{\$7}	^{\$2} 951	D	D	D
Arizona	298 569	205	243 057	10	7 288	131	48 225	4	6	Z
Arkansas	66 587	156	53 743	10	7 994	^{\$45}	4 849	6	8	Z
California	804 370	788	603 662	16	13 226	502	187 483	4	4	Z
Colorado	230 220	307	181 982	^{\$32}	6 054	85	42 185	6	7	21
Connecticut	146 172	232	95 921	71	12 234	62	38 017	10	16	7
Delaware	69 176	109	40 146	27	17 260	^{\$28}	^{\$11} 770	9	19	4
District of Columbia	48 498	3	D	92	46 285	4	D	6	D	6
Florida	554 696	642	416 261	55	51 403	191	87 031	7	8	20
Georgia	253 356	305	171 316	50	19 550	185	62 490	10	12	2
Hawaii *	D	51	24 791	2	D	^{\$23}	D	D	12	D
Idaho	40 675	40	32 348	S	3 606	S	4 721	9	11	15
Illinois	773 729	765	635 361	115	45 606	328	92 762	3	4	15
Indiana	307 128	483	218 663	94	36 451	148	52 014	5	6	21
Iowa	126 063	160	91 913	55	28 207	69	5 943	10	13	13
Kansas	82 741	161	49 610	92	19 900	^{\$37}	^{\$13} 231	10	12	4
Kentucky	175 225	341	103 926	147	50 070	41	21 229	10	7	8
Louisiana	130 873	170	^{\$111} 647	19	12 495	10	6 730	38	44	18
Maine	33 919	110	25 404	6	4 673	^{\$30}	^{\$3} 842	12	16	3
Maryland	329 299	373	219 824	135	28 548	174	80 927	6	6	15
Massachusetts	302 854	285	219 674	42	16 040	203	67 140	6	8	30
Michigan	577 688	659	411 097	95	33 673	337	132 919	4	5	5
Minnesota	321 649	408	255 011	49	9 432	90	57 206	5	6	16
Mississippi	47 628	121	24 637	22	12 386	^{\$50}	10 605	7	11	2
Missouri	283 686	313	206 927	82	21 744	201	55 014	6	8	29
Montana	21 492	62	20 267	5	D	5	D	21	22	D
Nebraska	75 924	188	52 784	13	12 648	^{\$18}	S	14	13	Z
Nevada	201 466	119	169 130	^{\$44}	22 119	13	^{\$10} 218	8	11	4
New Hampshire	61 194	93	47 604	^{\$42}	4 737	S	8 853	16	22	16
New Jersey	484 249	542	294 050	111	50 642	315	139 557	7	9	9
New Mexico	51 458	62	43 159	3	1 641	^{\$36}	^{\$6} 659	4	7	Z
New York	819 237	889	641 822	125	29 844	390	147 570	6	7	14
North Carolina	497 838	924	353 173	99	60 440	490	84 225	6	8	11
North Dakota	21 850	^{\$28}	11 523	9	5 732	^{\$9}	^{\$4} 596	10	23	Z
Ohio	624 469	800	465 650	145	34 927	410	123 892	4	5	18
Oklahoma	88 076	142	70 441	13	4 170	81	13 465	7	9	32
Oregon	103 216	181	76 235	^{\$54}	23 980	^{\$31}	S	9	11	22
Pennsylvania	748 297	1 044	583 101	86	20 900	375	144 296	5	5	31
Rhode Island	74 072	67	63 221	^{\$49}	4 648	^{\$42}	6 204	7	9	18
South Carolina	159 499	351	87 890	62	35 481	213	36 127	8	14	5
South Dakota	29 582	31	22 857	20	1 943	S	S	24	27	27
Tennessee	241 280	336	152 832	86	39 167	91	49 281	4	7	10
Texas	611 221	595	421 232	^{\$48}	18 733	373	171 257	13	16	5
Utah	117 196	249	85 603	9	18 965	^{\$28}	^{\$12} 627	9	15	Z
Vermont	25 211	61	16 210	7	2 266	^{\$34}	^{\$6} 736	5	18	Z
Virginia	384 028	625	242 951	122	38 619	314	102 458	5	5	15
Washington	204 304	312	145 269	18	6 291	78	52 744	7	10	2
West Virginia	61 080	92	28 388	93	21 104	80	11 588	12	22	18
Wisconsin	325 079	361	264 907	65	12 843	218	47 329	6	8	12
Wyoming	17 603	27	13 291	15	4 009	S	S	8	8	21

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **All other nonresidential buildings.** Includes nonresidential buildings that are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military non-building such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

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1997 Economic Census

Construction

Industry Series



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Economics and Statistics Administration
U.S. CENSUS BUREAU



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division	301-457-4673
Service Sector Statistics Division	301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
235420	Drywall, plastering, acoustical, & insulation contractors	20 457	266 710	7 479 440	22 369 364	20 113 940	13 082 540	7 290 708	268 950
174200	Plastering, drywall, acoustical, & insul work special trade contr	19 333	256 538	7 258 262	21 652 598	19 475 684	12 674 453	7 054 884	255 610
174310	Terrazzo, tile, marble, & mosaic work special trade contr (pt)	-	-	-	-	-	-	-	-
177110	Concrete work special trade contractors (pt)	1 124	10 172	221 178	716 768	638 255	408 086	235 824	13 340

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—	
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers		
											A
235420, DRYWALL, PLASTERING, ACOUSTICAL, & INSULATION CONTRACTORS											
United States	20 457	266 710	229 934	219 949	229 823	238 753	231 209	7 479 440	5 940 419	1	
Alabama	281	4 023	3 494	3 692	3 573	3 407	3 304	92 438	71 081	7	
Alaska	79	360	293	379	325	315	154	14 366	10 812	9	
Arizona	494	13 866	12 532	12 355	12 593	12 844	12 335	308 389	252 067	4	
Arkansas	157	1 488	1 245	1 200	1 354	1 177	1 251	31 604	25 492	11	
California	2 590	39 210	34 795	32 407	34 766	36 874	35 136	1 102 292	910 752	2	
Colorado	558	6 921	6 079	5 822	5 817	6 560	6 116	192 058	150 235	5	
Connecticut	154	2 025	1 671	1 538	1 644	1 775	1 727	77 087	58 737	7	
Delaware	60	687	532	492	609	561	464	24 638	18 236	6	
District of Columbia	3	D	D	D	D	D	D	D	D	D	
Florida	1 760	17 959	15 009	14 813	14 771	15 111	15 339	451 315	340 198	4	
Georgia	592	6 223	5 063	4 991	4 947	5 062	5 252	152 968	111 450	6	
Hawaii*	90	1 110	914	935	923	960	836	42 689	35 513	8	
Idaho	266	1 890	1 760	1 535	1 843	1 902	1 761	40 223	35 555	15	
Illinois	692	10 268	8 741	8 166	8 650	9 263	8 884	357 554	289 344	3	
Indiana	507	5 005	4 338	3 941	4 040	4 785	4 586	141 407	114 023	12	
Iowa	261	2 491	2 142	2 010	2 157	2 284	2 118	69 470	53 417	11	
Kansas	153	2 422	2 010	1 930	1 880	2 110	2 119	76 941	57 294	6	
Kentucky	255	3 689	3 046	3 019	3 069	3 152	2 946	82 516	60 748	9	
Louisiana	136	4 653	4 230	3 916	4 030	4 495	4 479	135 762	117 651	5	
Maine	108	1 010	872	777	913	923	877	19 902	16 025	23	
Maryland	441	7 367	6 230	6 112	6 493	6 318	5 997	216 720	170 066	5	
Massachusetts	426	3 849	3 145	2 876	3 035	3 415	3 252	124 571	95 251	9	
Michigan	643	7 069	6 181	5 861	6 176	6 453	6 232	218 406	173 240	5	
Minnesota	416	4 496	3 767	3 237	3 971	4 122	3 738	154 183	120 136	6	
Mississippi	142	2 531	2 157	1 853	2 173	2 303	2 296	67 019	53 486	5	
Missouri	457	4 916	4 242	4 025	4 395	4 195	4 352	155 230	124 263	6	
Montana	126	309	268	237	264	261	311	D	D	13	
Nebraska	183	2 166	1 744	1 622	1 733	1 774	1 845	59 189	42 467	18	
Nevada	167	6 729	6 036	6 327	6 153	5 983	5 683	175 733	147 284	6	
New Hampshire	79	1 120	936	885	943	938	977	38 059	29 170	8	
New Jersey	504	5 178	4 189	4 099	4 341	4 098	4 219	186 158	145 241	7	
New Mexico	201	2 525	2 217	2 201	2 148	2 390	2 131	49 753	41 544	11	
New York	839	11 284	9 421	8 757	9 168	9 874	9 887	435 287	339 988	4	
North Carolina	643	7 151	5 907	5 717	5 952	5 955	6 005	180 406	132 320	4	
North Dakota	69	614	529	451	542	607	518	13 922	10 427	4	
Ohio	638	7 610	6 480	6 486	6 611	6 741	6 080	216 735	169 846	5	
Oklahoma	185	1 501	1 301	1 144	1 192	1 365	1 503	34 401	26 014	12	
Oregon	400	3 841	3 328	3 198	3 493	3 365	3 254	112 812	92 387	5	
Pennsylvania	601	8 087	7 076	6 518	6 759	7 753	7 273	273 508	227 489	3	
Rhode Island	134	1 006	847	737	832	906	911	45 115	35 819	7	
South Carolina	307	3 480	2 941	2 739	2 875	3 112	3 040	77 155	57 544	7	
South Dakota	82	383	346	350	356	372	308	9 705	8 462	15	
Tennessee	284	4 614	4 023	3 874	3 987	4 118	4 111	118 515	88 402	5	
Texas	983	16 479	14 402	13 545	14 336	14 830	14 898	370 461	292 708	4	
Utah	369	4 239	3 866	4 051	4 217	3 865	3 334	114 334	97 893	6	
Vermont	24	D	D	D	D	D	D	7 985	5 655	D	
Virginia	477	7 623	6 314	6 267	6 451	6 307	6 302	186 203	135 985	5	
Washington	810	8 927	7 811	7 776	7 958	7 999	7 509	245 401	203 280	5	
West Virginia	58	403	328	282	338	350	344	11 063	8 802	13	
Wisconsin	513	4 917	4 265	3 936	4 173	4 562	4 389	142 974	116 093	4	
Wyoming	59	495	433	381	428	506	417	11 780	9 087	22	

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
235420, DRYWALL, PLASTERING, ACOUSTICAL, & INSULATION CONTRACTORS										
United States	22 369 364	20 113 940	13 082 540	7 290 708	2 255 424	265 495	268 950	1 949 828	1	2
Alabama	291 772	259 627	160 976	103 815	32 145	3 776	5 802	19 905	9	31
Alaska	45 663	41 488	27 159	14 329	^{s4} 175	479	197	4 036	11	33
Arizona	789 421	762 603	475 544	295 107	26 818	8 383	10 081	72 095	2	4
Arkansas	121 292	100 574	61 069	39 662	^{s20} 719	2 237	1 437	16 863	9	22
California	2 938 517	2 743 878	1 851 317	905 134	194 639	32 876	32 420	228 373	2	4
Colorado	525 653	482 117	316 461	168 283	43 536	7 664	7 585	47 639	5	10
Connecticut	225 464	191 841	134 797	64 579	33 622	3 221	1 983	14 047	12	23
Delaware	81 742	70 742	42 472	28 270	^{s11} 000	799	987	4 152	7	32
District of Columbia.....	D	D	D	D	D	D	D	D	D	D
Florida	1 725 369	1 418 719	834 947	590 978	306 650	20 592	19 681	126 663	4	9
Georgia	604 662	509 207	292 099	229 117	95 455	5 753	7 475	85 065	8	19
Hawaii *.....	119 813	117 859	80 628	37 231	1 954	1 898	906	11 960	4	14
Idaho	122 304	112 954	73 309	40 052	9 350	1 654	D	D	15	D
Illinois	1 012 381	915 125	622 713	301 668	97 257	11 304	13 149	82 879	3	10
Iowa	434 306	381 072	255 371	128 128	53 235	6 406	5 524	33 438	11	21
Indiana	224 109	210 169	136 311	78 114	13 940	3 305	5 184	25 615	15	31
Iowa	270 066	218 609	133 251	86 105	51 458	3 300	1 961	17 106	8	10
Kansas	250 125	229 792	151 328	82 675	20 333	3 525	3 429	30 586	12	20
Kentucky	336 573	317 489	207 713	110 992	19 083	3 106	3 263	25 956	5	8
Louisiana	67 099	60 183	38 254	21 929	6 916	1 101	800	9 580	16	32
Maryland	631 413	558 995	357 344	207 092	72 418	6 790	6 465	45 577	5	15
Massachusetts	429 396	378 779	248 691	130 111	50 617	5 110	5 311	50 866	8	16
Michigan	689 850	589 450	367 985	226 153	100 400	7 103	8 730	55 367	4	13
Minnesota	465 829	422 990	281 996	151 339	42 839	5 556	5 858	51 115	6	16
Mississippi	202 019	186 596	127 646	62 002	15 423	2 319	3 589	22 689	5	14
Missouri	412 116	387 447	261 506	133 326	24 669	3 409	6 039	36 029	5	15
Montana	25 805	23 313	16 415	10 208	2 491	446	432	4 249	24	33
Nebraska	255 220	215 801	131 142	90 609	39 419	3 300	2 793	22 043	21	34
Nevada	415 067	402 692	270 957	138 130	12 375	4 952	3 765	36 276	5	10
New Hampshire	107 289	99 684	60 470	39 214	^{s7} 606	1 516	1 242	8 911	9	8
New Jersey	567 626	506 750	342 782	165 717	60 877	5 927	3 980	32 022	4	9
New Mexico	150 978	143 279	95 497	49 172	7 699	1 720	2 365	16 329	7	9
New York	1 222 995	1 090 233	779 428	313 001	132 762	14 760	11 718	90 794	3	9
North Carolina	670 651	568 012	332 877	241 080	102 639	6 801	10 940	62 965	6	12
North Dakota	45 802	44 970	28 527	16 795	^{s832}	382	791	7 466	5	25
Ohio	661 986	587 849	369 506	222 178	74 137	7 919	5 327	54 836	4	11
Oklahoma	118 379	111 993	69 570	43 935	6 386	1 125	1 778	12 525	14	17
Oregon	326 373	306 037	191 694	114 759	20 337	4 791	4 642	24 017	5	16
Pennsylvania	734 278	674 889	475 324	245 921	59 389	9 931	7 751	73 634	4	9
Rhode Island	137 707	116 531	74 450	42 081	21 176	1 296	1 124	10 188	5	22
South Carolina	292 708	261 433	159 980	111 344	31 274	2 938	3 508	24 488	6	19
South Dakota	32 374	31 114	21 477	10 098	^{s1} 260	D	167	^{s7} 066	22	7
Tennessee	347 357	313 316	197 967	123 232	34 041	4 154	3 959	24 648	3	11
Texas	1 223 608	1 083 493	669 185	427 509	140 116	13 475	15 608	109 944	5	11
Utah	324 333	307 704	206 022	105 165	16 630	3 644	3 880	34 407	7	18
Vermont	D	D	D	D	D	315	461	3 448	D	23
Virginia	527 161	472 403	303 645	183 536	54 759	6 889	6 440	44 346	4	10
Washington	661 975	619 024	425 526	196 010	42 952	9 794	7 773	55 616	4	8
West Virginia	25 219	23 861	21 737	7 863	1 358	460	265	2 813	13	31
Wisconsin	406 630	374 029	252 353	134 856	32 601	5 671	6 652	43 688	4	17
Wyoming.....	31 727	31 361	20 581	10 780	366	529	^{s689}	5 903	20	46

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
235420, DRYWALL, PLASTERING, ACOUSTICAL, & INSULATION CONTRACTORS			235420, DRYWALL, PLASTERING, ACOUSTICAL, & INSULATION CONTRACTORS—Con.		
Number of establishments in business during year	20 457	1	Selected costs	9 546 132	2
Number of proprietors and working partners	8 326	3	Cost of materials, components, and supplies	7 070 458	1
Total number of employees	266 710	1	Cost of construction work subcontracted out to others	2 255 424	3
Number of construction workers in March	219 949	1	Cost of selected power, fuels, and lubricants	220 251	2
Number of construction workers in May	229 823	1	Cost of electricity	32 271	3
Number of construction workers in August	238 753	1	Cost of natural gas and manufactured gas	7 536	8
Number of construction workers in November	231 209	1	Cost of gasoline and diesel fuel	173 413	2
Average number of construction workers	229 934	1	Cost of on-highway use of gasoline and diesel fuel	157 456	2
Number of other employees in March	37 022	1	Cost of off-highway use of gasoline and diesel fuel	15 958	6
Number of other employees in May	36 385	1	Cost of all other fuels and lubricants	7 030	7
Number of other employees in August	36 859	1	Rental cost for machinery, equipment, and buildings	265 495	2
Number of other employees in November	36 841	1	Rental cost for machinery and equipment	137 268	2
Average number of other employees	36 777	1	Rental cost for buildings	128 227	2
Payroll, all employees	7 479 440	1	Selected purchased services	266 828	2
Payroll, construction workers	5 940 419	1	Purchased communication services	120 465	2
Payroll, other employees	1 539 021	1	Cost of repairs to buildings and other structures	18 057	4
First-quarter payroll, all employees	1 660 386	1	Cost of repairs to machinery and equipment	128 306	2
Fringe benefits, all employees	1 853 695	1	Value of construction work	22 369 364	1
Legally required expenditures	1 237 248	1	Value of construction work on government owned projects ..	3 399 882	2
Voluntary expenditures	616 447	1	Value of construction work on federally owned projects ..	955 605	3
Value of business done	22 628 672	1	Value of construction work on state and locally owned projects	2 444 277	3
Value of construction work	22 369 364	1	Value of construction work on privately owned projects	18 969 484	1
Value of construction work subcontracted in from others ..	19 509 336	1	Beginning-of-year gross book value of depreciable assets	1 764 492	3
Other business receipts	259 307	4	Capital expenditures, other than land	268 950	2
Net value of construction	20 113 940	1	Retirements and disposition of depreciable assets	83 614	3
Value added	13 082 540	1	End-of-year gross book value of depreciable assets	1 949 828	2
			Depreciation charges during year	207 835	2
			Number of establishments with inventories	5 321	4
			Value of construction work for establishments with inventories ..	12 747 127	2
			End of 1997, inventories of materials and supplies	199 438	2
			End of 1996, inventories of materials and supplies	197 715	3
			Number of establishments with no inventories	8 333	3
			Value of construction work for establishments with no inventories	6 311 409	2
			Number of establishments not reporting inventories	6 803	4
			Value of construction work for establishments not reporting inventories	3 310 829	3

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235420, DRYWALL, PLASTERING, ACOUSTICAL, & INSULATION CONTRACTORS											
Total	20 457	266 710	7 479 440	22 628 672	22 369 364	20 113 940	13 082 540	7 290 708	2 255 424	1	1
Establishments with 1 to 4 employees	10 461	20 126	386 850	2 138 022	2 125 154	1 743 119	998 826	757 160	382 036	3	5
Establishments with 5 to 9 employees	4 092	25 973	572 864	2 155 694	2 151 049	1 881 031	1 167 709	717 967	270 018	5	5
Establishments with 10 to 19 employees	2 648	35 779	901 887	2 935 684	2 911 087	2 584 094	1 628 664	980 026	326 993	5	5
Establishments with 20 to 49 employees	2 172	65 221	1 840 813	5 426 148	5 365 011	4 892 866	3 199 349	1 754 653	472 145	3	2
Establishments with 50 to 99 employees	711	48 646	1 479 432	4 130 249	4 065 172	3 737 141	2 472 394	1 329 823	328 032	2	2
Establishments with 100 to 249 employees	310	45 795	1 478 162	3 839 519	3 794 469	3 474 244	2 375 202	1 144 092	320 225	1	1
Establishments with 250 to 499 employees	52	16 902	556 349	1 366 208	1 366 008	1 262 001	856 425	405 776	104 007	Z	Z
Establishments with 500 to 999 employees	8	5 159	161 527	398 502		D	352 626		D	D	Z
Establishments with 1,000 employees or more	3	3 108	101 555	238 647		D	186 820		D	D	Z

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235420, DRYWALL, PLASTERING, ACOUSTICAL, & INSULATION CONTRACTORS											
Total	20 457	266 710	7 479 440	22 628 672	22 369 364	20 113 940	13 082 540	7 290 708	2 255 424	1	1
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	2 294	4 039	S	S	S	S	S	S	10 022	10	S
Establishments with value of business done \$100,000 to \$249,999	4 713	14 159	226 153	778 591	772 518	707 241	471 683	241 631	65 277	6	5
Establishments with value of business done \$250,000 to \$499,999	3 630	18 468	373 666	1 301 869	1 296 159	1 179 401	740 971	444 140	116 757	6	5
Establishments with value of business done \$500,000 to \$999,999	2 985	29 650	669 559	2 104 658	2 093 289	1 885 066	1 207 610	688 825	208 223	5	5
Establishments with value of business done \$1,000,000 to \$2,499,999	2 683	50 139	1 301 477	4 198 169	4 176 466	3 687 087	2 307 626	1 401 164	489 379	3	4
Establishments with value of business done \$2,500,000 to \$4,999,999	1 214	47 464	1 408 867	4 186 673	4 131 552	3 735 373	2 406 390	1 384 104	396 179	3	3
Establishments with value of business done \$5,000,000 to \$9,999,999	602	45 189	1 421 205	4 132 625	4 065 046	3 721 918	2 429 972	1 359 525	343 128	2	2
Establishments with value of business done \$10,000,000 or more	287	56 054	2 015 354	5 705 698	5 615 117	4 991 379	3 371 007	1 710 953	623 738	1	1

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
235420, DRYWALL, PLASTERING, ACOUSTICAL, & INSULATION CONTRACTORS								
Total	22 369 364	16 218 804	4 796 485	1 247 749	1	1	2	4
Building construction, total	21 841 215	16 135 396	4 682 983	1 022 836	1	1	2	4
Single-family houses, detached and attached	7 056 355	6 101 466	657 306	297 582	2	3	4	9
Single-family houses, detached	6 046 367	5 232 262	569 896	244 210	3	3	5	11
Single-family houses, attached	1 009 987	869 204	87 411	53 372	6	7	14	10
Apartment buildings, apartment type condominiums and cooperatives	1 371 275	1 185 248	135 428	50 599	4	5	9	11
Manufacturing and light industrial buildings	930 830	545 308	262 602	122 919	3	4	5	8
Manufacturing and light industrial warehouses	459 374	333 099	93 440	32 834	5	5	10	6
Hotels and motels	926 795	768 328	136 761	21 706	3	3	10	10
Office buildings	4 077 618	2 386 437	1 494 118	197 063	2	3	3	9
All other commercial buildings, nec	2 322 605	1 562 766	672 328	87 511	3	3	5	6
Commercial warehouses	407 760	313 226	78 784	15 750	6	7	9	8
Religious buildings	433 491	292 859	112 765	27 868	5	5	7	27
Educational buildings	1 540 556	1 034 579	445 408	60 568	3	3	5	7
Health care and institutional buildings	1 430 742	944 244	424 634	61 864	4	6	4	5
Public safety buildings	360 528	274 748	70 547	15 234	9	11	6	36
Amusement, social, and recreational buildings	353 647	259 849	70 905	22 894	8	8	18	24
All other nonresidential buildings	169 640	133 238	27 957	8 446	8	9	11	17
Nonbuilding construction, total	421 822	83 408	113 502	224 912	2	4	4	2
Blast furnaces, petroleum refineries, chemical complexes, etc	238 484	32 811	76 099	129 574	1	3	1	1
Other nonbuilding construction, nec	183 338	50 597	37 403	95 339	4	6	13	4
Construction work, nsk	106 328	X	X	X	11	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—			
				For all types	For specialized type				B	D	H	
												A
235420, DRYWALL, PLASTERING, ACOUSTICAL, & INSULATION CONTRACTORS												
Total	20 457	266 710	7 479 440	22 369 364	X	20 113 940	13 082 540	2 255 424	1	1	3	
Establishments not specializing ..	4 609	102 842	3 168 952	8 820 635	X	8 007 479	5 382 194	813 156	2	2	5	
Establishments specializing 51 percent or more	15 848	163 868	4 310 488	13 548 730	11 255 694	12 106 462	7 700 346	1 442 268	1	2	4	
Single-family houses, detached and attached												
All establishments specializing	11 088	86 999	1 970 119	6 854 801	5 882 228	6 091 127	3 627 218	763 674	2	3	7	
Specialization 100 percent	4 959	27 494	564 357	2 177 049	2 177 049	1 835 292	1 089 263	341 757	5	6	13	
Specialization 90 to 99 percent	2 147	19 542	461 082	1 540 591	1 441 164	1 404 451	817 734	136 139	6	6	19	
Specialization 80 to 89 percent	1 842	16 789	374 154	1 196 478	991 543	1 077 807	653 348	118 672	6	6	16	
Specialization 70 to 79 percent	935	9 283	233 677	777 392	564 376	715 690	437 654	61 702	7	8	20	
Specialization 60 to 69 percent	947	10 168	238 579	843 185	532 888	759 597	452 515	83 588	7	9	23	
Specialization 51 to 59 percent	258	3 723	98 271	320 106	175 208	298 290	176 703	21 816	12	11	10	
Apartment buildings, apartment type condominiums and cooperatives												
All establishments specializing	612	7 154	176 886	641 715	504 646	544 948	340 423	96 767	9	10	15	
Specialization 100 percent	165	1 977	35 057	133 293	133 293	115 277	66 601	18 016	20	20	34	
Specialization 90 to 99 percent	103	779	20 587	112 916	104 824	91 674	55 976	*21 242	18	33	48	
Specialization 80 to 89 percent	113	988	24 787	79 599	65 436	70 981	46 501	*8 618	27	26	40	
Specialization 70 to 79 percent	83	1 012	26 469	103 418	75 054	79 604	49 280	23 815	23	17	27	
Specialization 60 to 69 percent	113	2 035	59 273	152 789	93 890	136 483	94 524	16 306	18	16	17	
Specialization 51 to 59 percent	*36	*363	*8 712	*59 700	*32 149	*50 929	*27 541	*8 771	43	43	45	
Office buildings												
All establishments specializing	1 534	27 804	943 436	2 554 395	2 027 214	2 321 864	1 583 063	232 531	4	4	8	
Specialization 100 percent	322	5 488	191 191	547 604	547 604	503 030	342 200	44 575	11	10	14	
Specialization 90 to 99 percent	183	4 011	146 082	417 877	385 414	369 595	244 605	48 282	11	11	31	
Specialization 80 to 89 percent	177	3 078	111 941	305 781	251 009	277 910	196 820	27 872	8	7	25	
Specialization 70 to 79 percent	304	6 735	220 546	551 376	402 120	506 864	349 140	44 512	7	7	12	
Specialization 60 to 69 percent	430	6 261	202 145	526 080	328 169	474 878	324 284	51 202	7	7	13	
Specialization 51 to 59 percent	117	2 231	71 531	205 677	112 898	189 587	126 013	16 089	10	8	9	
All other commercial buildings, nec												
All establishments specializing	818	13 710	372 403	1 132 442	926 661	1 002 143	675 300	130 299	7	8	14	
Specialization 100 percent	332	4 836	123 081	376 791	376 791	325 451	210 066	51 340	10	10	25	
Specialization 90 to 99 percent	93	1 282	35 106	106 919	98 998	95 480	58 416	11 439	14	16	36	
Specialization 80 to 89 percent	140	2 206	68 210	213 044	172 334	183 895	128 539	29 149	14	17	22	
Specialization 70 to 79 percent	105	1 895	49 317	135 738	97 543	125 233	89 069	*9 505	20	18	42	
Specialization 60 to 69 percent	93	2 270	70 256	205 988	129 776	181 229	128 572	*24 759	26	26	43	
Specialization 51 to 59 percent	54	1 222	26 434	93 962	51 219	89 855	60 638	4 107	23	29	29	
Educational buildings												
All establishments specializing	357	5 464	155 364	435 134	314 393	394 458	254 075	40 677	13	11	17	
Specialization 100 percent	*57	*524	*15 662	*36 810	*36 810	*35 768	*21 547	1 041	54	52	35	
Specialization 90 to 99 percent	*26	498	13 201	31 608	29 002	30 002	20 033	1 606	34	28	7	
Specialization 80 to 89 percent	*46	580	19 424	47 519	38 403	45 742	33 067	1 777	28	31	23	
Specialization 70 to 79 percent	124	2 391	58 739	176 967	125 553	158 149	98 169	18 819	23	19	34	
Specialization 60 to 69 percent	75	1 070	36 360	111 449	68 061	96 744	59 327	14 705	19	17	18	
Specialization 51 to 59 percent	*29	400	11 977	30 781	16 564	28 053	21 932	2 729	28	22	38	
Health care and institutional buildings												
All establishments specializing	224	4 440	137 762	379 546	276 921	341 762	230 529	37 784	12	14	26	
Specialization 100 percent	*61	*802	*20 809	*75 374	*75 374	*61 650	*36 116	*13 725	47	55	71	
Specialization 90 to 99 percent	*55	*217	*3 902	*14 488	*13 082	*14 333	*6 128	*155	50	45	66	
Specialization 80 to 89 percent	*19	331	10 916	29 389	23 554	26 231	19 092	3 158	39	34	28	
Specialization 70 to 79 percent	15	574	21 911	53 460	39 108	49 902	37 297	3 558	17	10	22	
Specialization 60 to 69 percent	26	1 790	62 850	155 251	96 653	141 463	102 309	13 787	8	7	7	
Specialization 51 to 59 percent	*48	*727	*17 374	*51 583	*29 149	*48 182	*29 585	*3 401	44	53	48	

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
235420, DRYWALL, PLASTERING, ACOUSTICAL, & INSULATION CONTRACTORS		
Total	22 628 672	1
Special trade contractors, total	21 535 394	1
Acoustical contractor	2 242 918	4
Carpentry contractor	424 679	7
Drywall contractor	11 018 270	2
Insulation contractor	4 256 039	3
Lathing contractor	680 519	5
Painting contractor	324 056	5
Plastering contractor	1 898 371	4
Stucco contractor	690 543	10
Other construction activities, nec	824 765	4
Other business activities secondary to construction activities, total	257 163	4
Other business activities, secondary to construction activities, nec	163 786	5
Retail trade, secondary to construction activities	93 377	6
Kind of business activity, nsk	11 351	Z

Table 10. Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
235420, DRYWALL, PLASTERING, ACOUSTICAL, & INSULATION CONTRACTORS											
Total	20 457	266 710	7 479 440	22 369 364	X	20 113 940	13 082 540	2 255 424	1	1	3
Establishments not specializing	1 491	36 469	1 128 427	3 258 070	X	2 871 870	1 961 974	386 200	3	4	10
Establishments specializing 51 percent or more	18 966	230 241	6 351 013	19 111 296	16 701 765	17 242 072	11 120 566	1 869 224	1	1	4
Acoustical contractor											
All establishments specializing	1 176	13 305	407 188	1 307 196	1 140 360	1 212 469	748 254	94 727	7	7	16
Specialization 100 percent	844	7 181	212 747	718 401	718 401	669 930	401 896	48 470	8	9	21
Specialization 90 to 99 percent	131	1 292	36 468	112 481	105 157	108 038	71 614	4 443	20	18	34
Specialization 80 to 89 percent	66	946	32 796	109 009	90 117	102 591	73 836	6 418	21	25	18
Specialization 70 to 79 percent	62	^{\$1} 308	^{\$3} 828	^{\$113} 546	^{\$80} 838	^{\$98} 741	^{\$64} 863	^{\$14} 805	44	45	71
Specialization 60 to 69 percent	24	1 032	42 511	107 943	66 689	101 431	65 886	6 512	12	10	3
Specialization 51 to 59 percent	49	1 546	43 839	145 815	79 158	131 737	70 159	14 078	7	5	4
Drywall contractor											
All establishments specializing	10 916	135 609	3 856 165	11 425 186	9 814 323	10 002 022	6 502 904	1 423 163	2	2	4
Specialization 100 percent	8 004	64 007	1 617 200	5 206 764	5 206 764	4 497 606	2 833 013	709 158	3	3	6
Specialization 90 to 99 percent	859	14 800	435 004	1 176 492	1 100 554	1 036 267	700 060	140 225	6	6	18
Specialization 80 to 89 percent	578	13 459	423 327	1 241 074	1 020 075	1 090 494	739 809	150 580	5	6	14
Specialization 70 to 79 percent	640	16 143	518 421	1 514 219	1 106 386	1 291 840	855 902	222 380	5	6	10
Specialization 60 to 69 percent	502	19 715	614 957	1 623 635	1 019 547	1 481 693	979 224	141 942	4	4	13
Specialization 51 to 59 percent	333	7 485	247 255	663 002	360 997	604 123	394 895	58 879	7	6	11
Insulation contractor											
All establishments specializing	3 196	46 806	1 306 704	4 142 542	3 811 461	3 983 766	2 504 424	158 777	3	3	11
Specialization 100 percent	2 547	29 506	808 521	2 616 183	2 616 183	2 512 361	1 554 440	103 822	4	4	16
Specialization 90 to 99 percent	212	5 571	176 641	519 652	485 786	498 230	299 539	21 422	7	6	5
Specialization 80 to 89 percent	120	3 611	96 088	286 051	240 309	281 876	175 993	4 175	11	8	23
Specialization 70 to 79 percent	107	3 242	91 935	305 977	224 282	296 716	184 016	9 261	10	10	20
Specialization 60 to 69 percent	105	2 760	79 033	224 738	141 799	218 893	172 660	5 845	9	7	10
Specialization 51 to 59 percent	105	2 116	54 487	189 941	103 102	175 690	117 776	14 251	16	13	21
Lathing contractor											
All establishments specializing	329	3 552	81 272	199 687	135 595	193 230	130 093	6 457	14	11	14
Specialization 100 percent	150	1 294	24 511	52 128	52 128	49 986	34 881	2 142	34	27	35
Specialization 90 to 99 percent	S	D	D	D	D	D	D	D	D	D	D
Specialization 80 to 89 percent	^{\$10}	^{\$92}	^{\$3} 794	^{\$8} 494	^{\$6} 795	^{\$7} 801	^{\$6} 061	^{\$693}	67	65	57
Specialization 70 to 79 percent	2	D	D	D	D	D	D	D	D	D	D
Specialization 60 to 69 percent	7	365	10 740	26 402	16 154	24 157	16 245	2 245	3	4	7
Specialization 51 to 59 percent	155	1 658	38 583	103 191	53 415	102 283	66 978	908	16	15	28
Plastering contractor											
All establishments specializing	2 274	21 165	486 397	1 347 437	1 143 975	1 238 858	844 394	108 580	6	6	14
Specialization 100 percent	1 518	11 173	245 097	695 996	695 996	635 451	432 397	60 545	8	8	22
Specialization 90 to 99 percent	159	907	23 341	75 938	70 226	68 023	43 153	^{\$7} 915	22	25	57
Specialization 80 to 89 percent	105	1 317	35 938	84 631	70 165	80 695	54 106	3 937	31	28	17
Specialization 70 to 79 percent	115	2 429	56 913	147 977	107 719	139 403	99 067	8 574	16	14	34
Specialization 60 to 69 percent	209	3 128	74 974	212 191	132 309	193 413	136 462	18 778	13	14	30
Specialization 51 to 59 percent	167	2 211	50 133	130 704	67 560	121 873	79 211	8 831	16	16	24
Stucco contractor											
All establishments specializing	1 025	9 567	207 904	668 673	635 476	592 482	378 220	76 191	8	11	30
Specialization 100 percent	905	7 732	163 361	557 893	557 893	488 992	300 926	68 901	9	13	33
Specialization 90 to 99 percent	^{\$160}	^{\$3} 403	^{\$10} 993	^{\$10} 993	^{\$10} 630	^{\$8} 997	^{\$6} 093	1 996	49	53	38
Specialization 80 to 89 percent	8	307	7 076	13 187	10 635	13 039	8 751	148	5	4	Z
Specialization 70 to 79 percent	^{\$19}	270	7 074	21 025	15 166	19 387	13 139	1 638	35	32	19
Specialization 60 to 69 percent	63	1 033	25 187	60 648	38 568	58 287	46 589	2 361	18	27	26
Specialization 51 to 59 percent	^{\$6}	^{\$64}	^{\$1} 803	^{\$4} 928	^{\$2} 584	^{\$3} 780	^{\$2} 721	^{\$1} 148	55	65	56

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Value of construction work done in this state	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—		
		Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
		A	B	D	E	F	G			
235420, DRYWALL, PLASTERING, ACOUSTICAL, & INSULATION CONTRACTORS										
United States	22 369 364	13 808	16 894 980	3 825	1 842 820	6 602	3 631 565	1	1	3
Alabama	293 568	180	196 128	55	^{§32} 485	101	^{§64} 956	11	8	42
Alaska	45 938	^{§43}	27 575	^{§49}	5 826	^{§36}	12 537	12	20	15
Arizona	713 912	335	588 503	28	8 919	158	116 491	3	3	7
Arkansas	108 338	107	85 853	58	12 837	^{§47}	^{§9} 648	15	20	6
California	2 878 738	1 729	2 359 125	21	54 543	858	465 069	3	2	Z
Colorado	550 642	409	425 398	47	29 664	149	95 580	5	7	16
Connecticut	235 435	126	198 829	75	27 209	27	9 397	15	17	14
Delaware	96 813	47	58 057	62	^{§31} 215	^{§14}	^{§7} 542	19	19	52
District of Columbia.....	105 175	2	D	130	D	1	D	9	D	D
Florida	1 714 374	1 214	1 387 413	65	44 987	536	281 974	5	7	10
Georgia	616 156	372	471 033	114	55 788	215	89 334	10	13	30
Hawaii *	127 492	64	101 847	6	10 554	27	15 091	3	4	Z
Idaho	125 482	146	84 157	41	9 733	120	^{§31} 592	14	13	8
Illinois	1 001 247	515	805 024	163	41 368	177	154 855	4	5	19
Indiana	463 149	348	340 024	182	53 953	159	69 172	10	14	11
Iowa	249 624	187	200 829	118	40 789	74	^{§8} 005	13	17	12
Kansas	231 782	120	187 995	80	36 719	^{§33}	7 068	18	22	22
Kentucky	250 501	149	160 225	137	39 296	105	50 980	11	19	11
Louisiana	285 528	82	199 393	32	24 191	^{§54}	61 944	6	7	31
Maine	62 147	89	49 093	9	1 919	^{§18}	^{§11} 135	15	24	13
Maryland	498 985	286	310 458	89	40 427	155	148 100	6	8	12
Massachusetts	510 608	284	344 287	118	102 737	142	63 585	7	10	3
Michigan	658 981	403	546 913	36	15 505	240	96 563	5	6	15
Minnesota	407 125	310	350 790	98	13 298	106	43 037	7	8	24
Mississippi	208 825	104	160 352	33	29 324	^{§38}	^{§19} 149	5	8	6
Missouri	418 175	252	301 154	95	52 605	205	64 415	5	7	20
Montana	27 511	121	D	5	D	5	D	21	D	D
Nebraska	181 976	144	145 156	97	14 036	34	^{§22} 784	14	18	18
Nevada	560 309	127	299 729	63	151 788	40	108 791	3	7	3
New Hampshire	56 018	72	36 614	62	10 612	^{§6}	8 792	17	26	13
New Jersey	556 349	317	365 246	75	65 177	182	125 925	5	7	10
New Mexico	159 090	163	124 469	^{§28}	8 262	^{§38}	26 359	7	8	9
New York	1 220 942	554	985 531	80	48 920	283	186 491	4	5	10
North Carolina	678 126	408	554 377	66	41 077	235	82 672	6	8	10
North Dakota	39 524	66	35 763	10	3 217	3	544	5	6	1
Ohio	672 194	488	560 406	65	44 454	150	67 334	4	6	13
Oklahoma	132 372	105	84 204	71	17 277	80	^{§30} 892	13	10	10
Oregon	349 881	249	257 084	57	40 064	152	52 732	4	5	11
Pennsylvania	742 904	423	508 535	133	66 220	169	168 150	5	4	15
Rhode Island	102 003	^{§45}	73 295	106	14 843	89	^{§13} 865	7	8	26
South Carolina	338 702	205	225 377	151	53 783	103	59 542	7	8	26
South Dakota	54 779	^{§47}	25 716	83	^{§23} 001	^{§35}	^{§6} 062	23	32	44
Tennessee	323 460	158	240 467	100	38 487	123	44 507	5	5	8
Texas	1 229 232	589	929 452	55	71 690	394	228 090	5	7	4
Utah	315 066	238	231 135	^{§17}	13 674	131	^{§70} 258	7	11	5
Vermont	28 284	16	D	28	D	^{§8}	D	12	D	D
Virginia	608 618	335	377 312	204	127 547	143	103 760	5	5	15
Washington	642 451	594	471 031	49	25 122	217	146 298	4	6	5
West Virginia	40 692	^{§30}	18 185	82	20 741	^{§28}	^{§1} 766	8	18	4
Wisconsin	414 169	360	319 886	104	22 704	153	71 579	5	7	13
Wyoming	35 970	50	25 210	94	7 134	9	3 626	17	25	11

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **All other nonresidential buildings.** Includes nonresidential buildings that are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military non-building such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Tile, Marble, Terrazzo, and Mosaic Contractors

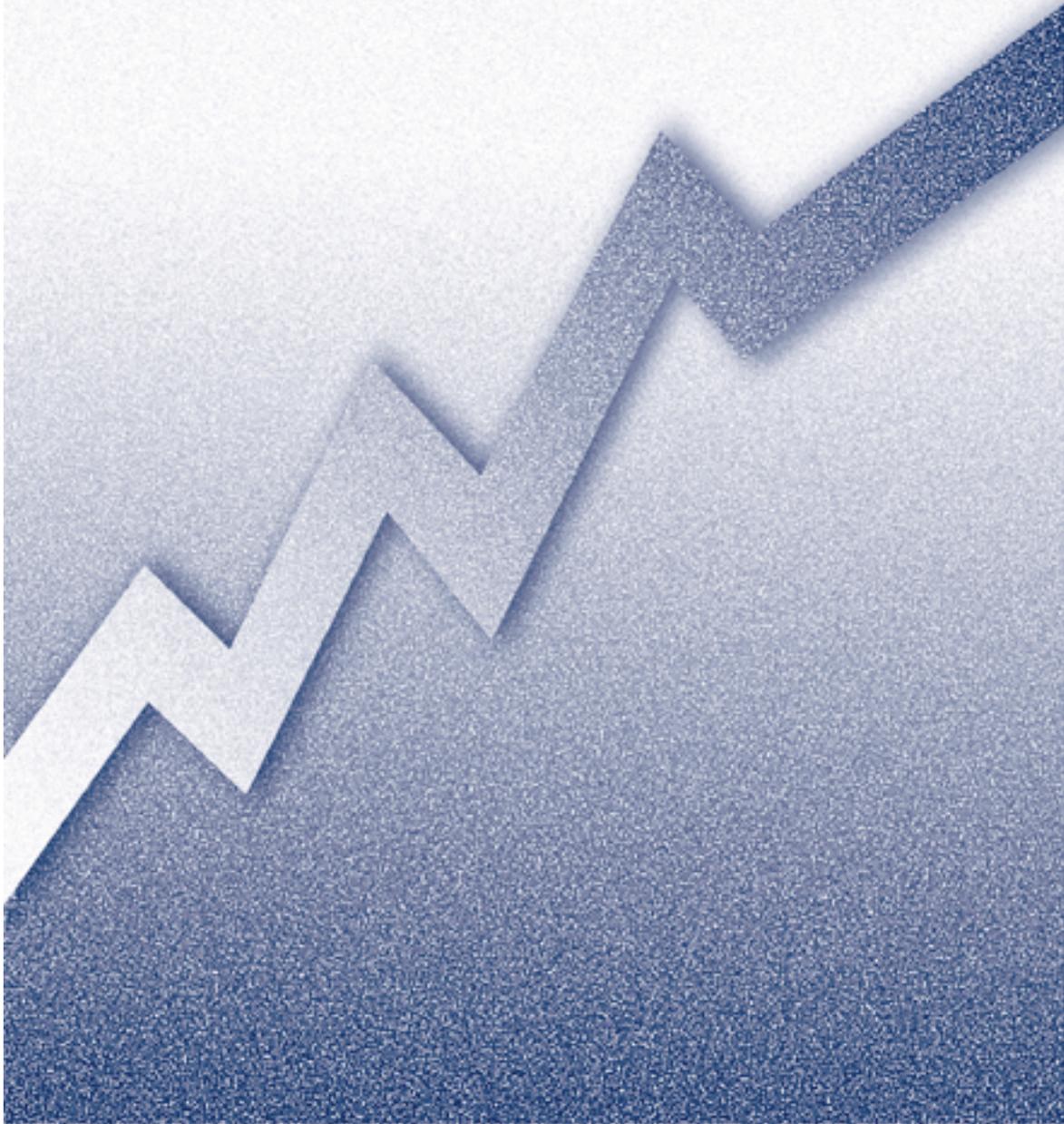
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1997 Economic Census

Construction
Industry Series



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Tile, Marble, Terrazzo, and Mosaic Contractors

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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
235430 174320	Tile, marble, terrazzo, & mosaic contractors Terrazzo, tile, marble, & mosaic work special trade contr (pt	6 847 6 847	39 755 39 755	1 064 176 1 064 176	3 491 653 3 491 653	3 290 990 3 290 990	1 992 726 1 992 726	1 339 614 1 339 614	47 905 47 905

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—	
		All	Con- struction workers	January to March	April to June	July to September	October to December	All employees	Construction workers		
											A
235430, TILE, MARBLE, TERRAZZO, & MOSAIC CONTRACTORS											
United States	6 847	39 755	31 847	30 303	32 023	32 885	32 177	1 064 176	783 825	2	
Alabama	78	595	495	492	467	505	518	15 353	11 195	6	
Alaska	14	30	22	11	36	32	9	1 141	940	8	
Arizona	253	1 588	1 275	1 296	1 265	1 346	1 194	34 994	25 952	8	
Arkansas	75	^s 319	^s 275	^s 277	^s 300	227	227	4 909	4 175	43	
California	1 187	7 575	6 396	5 898	6 340	6 580	6 765	206 982	162 226	2	
Colorado	130	364	258	228	259	274	273	10 431	7 548	18	
Connecticut	71	218	166	156	179	165	166	7 069	5 362	19	
Delaware	12	44	34	36	32	33	33	1 530	1 016	Z	
District of Columbia	—	—	—	—	—	—	—	—	—	—	
Florida	795	3 658	2 887	2 860	2 923	2 905	2 860	79 879	57 351	5	
Georgia	139	1 005	753	760	767	763	723	24 852	18 275	7	
Hawaii *	47	315	250	236	263	258	244	10 329	7 107	11	
Idaho	63	256	206	164	224	204	232	4 386	3 676	34	
Illinois	189	1 420	1 085	1 063	1 061	1 083	1 131	51 364	37 209	3	
Indiana	89	713	579	529	588	630	570	19 480	14 681	13	
Iowa	^s 50	305	244	272	235	253	216	7 032	5 739	23	
Kansas	40	225	192	171	170	215	211	5 760	4 068	14	
Kentucky	65	332	289	273	300	297	286	9 596	7 523	11	
Louisiana	77	535	436	419	412	461	450	11 528	8 212	16	
Maine	^s 6	^s 19	13	^s 12	13	13	13	^s 481	^s 321	41	
Maryland	137	819	664	556	681	708	713	18 355	14 370	14	
Massachusetts	95	393	294	279	320	276	302	12 657	9 687	10	
Michigan	160	707	587	538	619	599	592	22 850	17 545	14	
Minnesota	106	520	394	425	373	390	388	18 392	13 193	8	
Mississippi	16	113	85	72	92	92	84	2 602	1 566	1	
Missouri	81	604	467	387	496	515	468	17 719	12 557	6	
Montana	^s 23	^s 118	^s 100	^s 100	^s 100	^s 100	^s 100	^s 2 670	^s 2 028	68	
Nebraska	23	149	115	112	118	122	108	4 112	2 930	9	
Nevada	114	1 261	1 059	992	1 046	1 159	1 040	32 677	24 443	4	
New Hampshire	12	35	26	28	34	22	19	1 157	844	23	
New Jersey	253	1 072	786	756	817	765	805	34 129	23 009	10	
New Mexico	^s 72	182	158	144	149	179	160	4 057	3 432	26	
New York	365	2 055	1 597	1 479	1 645	1 665	1 596	69 073	49 629	5	
North Carolina	244	1 421	1 089	1 163	1 095	1 071	1 027	32 224	22 117	8	
North Dakota	4	20	15	15	15	15	16	222	146	30	
Ohio	152	967	770	674	771	798	835	27 571	21 422	11	
Oklahoma	82	359	257	285	254	264	225	8 107	5 299	18	
Oregon	90	287	222	214	206	241	225	7 105	5 687	11	
Pennsylvania	150	1 158	930	869	937	952	962	37 657	27 544	4	
Rhode Island	54	111	91	86	92	95	90	2 619	1 849	22	
South Carolina	113	414	321	263	336	390	297	8 105	6 145	17	
South Dakota	6	69	49	46	41	53	54	1 831	1 285	18	
Tennessee	125	785	642	658	664	644	601	20 827	13 265	12	
Texas	428	2 961	2 376	2 342	2 442	2 424	2 296	75 200	51 726	13	
Utah	149	1 047	871	730	819	926	1 010	22 141	16 992	11	
Vermont	6	16	14	14	14	14	14	354	328	Z	
Virginia	158	1 322	1 065	1 061	1 047	1 064	1 088	32 145	22 235	6	
Washington	135	784	585	544	572	617	609	26 013	19 472	14	
West Virginia	^s 8	^s 26	^s 19	^s 19	^s 19	^s 19	^s 19	S	S	72	
Wisconsin	99	424	318	271	347	366	287	12 591	9 246	5	
Wyoming	9	43	29	32	29	31	26	841	490	10	

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
235430, TILE, MARBLE, TERRAZZO, & MOSAIC CONTRACTORS										
United States	3 491 653	3 290 990	1 992 726	1 339 614	200 663	37 334	47 905	405 292	2	4
Alabama	43 314	41 658	25 050	17 182	1 657	240	556	5 258	6	13
Alaska	4 296	4 185	2 291	1 895	*111	*71	75	1 469	14	32
Arizona	97 634	94 390	60 983	34 601	3 244	1 396	1 624	11 365	6	12
Arkansas	17 045	16 960	10 800	6 160	*85	108	*361	*2 733	31	56
California	649 655	622 593	375 992	249 429	27 062	6 963	7 402	69 198	4	7
Colorado	40 872	37 384	22 647	14 949	*3 488	425	309	3 662	20	36
Connecticut	23 125	20 973	12 765	8 839	*2 152	187	225	*2 042	21	35
Delaware	4 328	4 063	2 432	1 631	*265	*7	52	620	6	13
District of Columbia	—	—	—	—	—	—	—	—	—	—
Florida	338 800	303 309	169 472	137 280	35 492	4 099	5 224	37 080	7	18
Georgia	88 423	82 536	51 247	39 584	5 888	794	1 402	10 540	8	18
Hawaii *	30 621	28 562	20 189	9 509	2 059	397	302	6 602	11	28
Idaho	18 134	17 980	11 468	6 512	154	*139	*236	2 919	34	44
Illinois	172 231	166 494	104 252	62 524	5 737	2 595	3 042	24 478	4	7
Indiana	55 425	53 484	32 971	21 015	1 940	*288	669	6 483	9	19
Iowa	*31 296	29 574	15 608	14 298	S	*305	*467	*4 636	37	63
Kansas	17 835	16 881	10 587	6 304	954	1 631	348	2 710	6	9
Kentucky	28 851	28 470	16 565	11 905	382	193	221	2 777	16	26
Louisiana	32 043	31 774	21 662	10 112	269	139	*875	5 185	9	41
Maine	*2 286	*2 175	*1 240	*935	*112	*72	*159	*540	42	47
Maryland	52 756	50 241	31 395	19 446	2 516	322	705	6 649	10	25
Massachusetts	40 616	38 780	25 371	14 436	1 836	688	348	3 805	10	38
Michigan	67 337	65 150	40 833	24 456	2 187	647	858	6 433	16	34
Minnesota	54 966	52 986	31 497	21 615	1 980	374	474	4 616	6	16
Mississippi	7 187	6 904	4 098	2 907	283	70	83	1 262	1	9
Missouri	54 630	52 352	34 878	18 251	2 278	543	1 607	7 271	7	9
Montana	*7 937	*7 817	*4 976	*2 855	S	*108	*79	*499	64	74
Nebraska	10 617	10 528	6 710	4 927	89	58	247	1 697	6	7
Nevada	103 296	99 052	59 735	39 317	4 244	1 217	863	8 988	4	12
New Hampshire	3 369	3 054	2 173	881	315	10	30	648	24	16
New Jersey	105 091	98 697	61 369	39 085	6 394	1 436	1 317	11 690	8	18
New Mexico	14 465	14 199	9 036	5 163	*266	109	*107	2 051	29	54
New York	231 426	215 562	132 564	87 183	15 864	2 121	2 481	26 541	4	13
North Carolina	114 792	105 119	62 294	48 065	9 673	1 186	2 177	17 290	7	20
North Dakota	1 404	1 397	875	*522	*8	21	*3	96	31	58
Ohio	83 134	78 391	46 679	31 712	4 743	773	1 007	7 956	11	24
Oklahoma	*40 749	38 210	20 347	*17 863	S	*712	447	3 953	39	27
Oregon	22 236	20 823	12 663	8 588	*1 413	*197	358	2 551	12	21
Pennsylvania	123 252	117 008	68 937	50 058	6 244	1 196	1 446	11 182	4	23
Rhode Island	8 254	7 817	5 704	2 545	*437	*28	75	920	14	23
South Carolina	27 424	25 433	15 766	10 055	1 991	*249	*424	4 369	16	42
South Dakota	8 639	8 588	3 686	4 902	51	141	105	811	13	1
Tennessee	66 936	62 008	36 360	25 859	4 929	668	1 263	8 562	14	18
Texas	256 973	229 244	132 411	97 396	27 729	2 336	3 672	31 373	10	18
Utah	65 277	62 867	39 927	22 941	2 410	799	844	7 188	12	24
Vermont	992	962	597	365	30	11	14	342	4	7
Virginia	93 501	90 129	53 598	37 984	3 372	1 212	1 415	12 213	6	20
Washington	79 125	76 510	47 931	28 579	2 615	987	1 349	9 079	14	18
West Virginia	S	S	S	S	S	—	S	S	S	S
Wisconsin	42 557	41 294	28 148	14 514	1 263	493	487	4 646	6	13
Wyoming	2 656	2 620	1 618	1 003	36	44	26	719	8	18

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
235430, TILE, MARBLE, TERRAZZO, & MOSAIC CONTRACTORS			235430, TILE, MARBLE, TERRAZZO, & MOSAIC CONTRACTORS—Con.		
Number of establishments in business during year	6 847	2	Selected costs	1 540 277	3
Number of proprietors and working partners	3 027	4	Cost of materials, components, and supplies	1 293 448	2
Total number of employees	39 755	2	Cost of construction work subcontracted out to others	200 663	6
Number of construction workers in March	30 303	2	Cost of selected power, fuels, and lubricants	46 166	2
Number of construction workers in May	32 023	2	Cost of electricity	7 671	3
Number of construction workers in August	32 885	2	Cost of natural gas and manufactured gas	2 043	6
Number of construction workers in November	32 177	2	Cost of gasoline and diesel fuel	34 852	2
Average number of construction workers	31 847	2	Cost of on-highway use of gasoline and diesel fuel	32 499	2
Number of other employees in March	7 982	2	Cost of off-highway use of gasoline and diesel fuel	2 352	9
Number of other employees in May	7 863	3	Cost of all other fuels and lubricants	1 600	8
Number of other employees in August	7 894	3	Rental cost for machinery, equipment, and buildings	37 334	3
Number of other employees in November	7 893	3	Rental cost for machinery and equipment	10 115	5
Average number of other employees	7 908	2	Rental cost for buildings	27 219	3
Payroll, all employees	1 064 176	2	Selected purchased services	50 530	2
Payroll, construction workers	783 825	2	Purchased communication services	26 714	2
Payroll, other employees	280 352	2	Cost of repairs to buildings and other structures	2 402	4
First-quarter payroll, all employees	235 964	1	Cost of repairs to machinery and equipment	21 414	3
Fringe benefits, all employees	239 606	1	Value of construction work	3 491 653	2
Legally required expenditures	159 998	2	Value of construction work on government owned projects ..	445 675	3
Voluntary expenditures	79 608	2	Value of construction work on federally owned projects ..	115 230	4
Value of business done	3 533 003	2	Value of construction work on state and locally owned projects	330 444	3
Value of construction work	3 491 653	2	Value of construction work on privately owned projects	3 045 979	2
Value of construction work subcontracted in from others ..	2 796 219	2	Beginning-of-year gross book value of depreciable assets	369 472	3
Other business receipts	41 350	9	Capital expenditures, other than land	47 905	4
Net value of construction	3 290 990	2	Retirements and disposition of depreciable assets	12 085	6
Value added	1 992 726	1	End-of-year gross book value of depreciable assets	405 292	3
			Depreciation charges during year	43 723	3
			Number of establishments with inventories	1 654	5
			Value of construction work for establishments with inventories ..	2 050 288	3
			End of 1997, inventories of materials and supplies	62 769	4
			End of 1996, inventories of materials and supplies	57 939	4
			Number of establishments with no inventories	2 860	4
			Value of construction work for establishments with no inventories	905 637	3
			Number of establishments not reporting inventories	2 332	4
			Value of construction work for establishments not reporting inventories	535 729	4

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235430, TILE, MARBLE, TERRAZZO, & MOSAIC CONTRACTORS											
Total	6 847	39 755	1 064 176	3 533 003	3 491 653	3 290 990	1 992 726	1 339 614	200 663	2	2
Establishments with 1 to 4 employees	4 734	8 035	154 352	754 866	750 275	689 237	396 573	297 256	61 038	3	6
Establishments with 5 to 9 employees	1 071	6 926	172 496	595 429	590 084	553 311	330 154	228 502	36 773	5	5
Establishments with 10 to 19 employees	630	8 259	222 333	722 992	711 559	666 857	397 522	280 770	44 701	5	5
Establishments with 20 to 49 employees	325	9 651	293 051	854 958	841 937	807 706	495 347	325 381	34 230	5	3
Establishments with 50 to 99 employees	69	4 483	143 672	384 731	378 151	365 552	234 911	137 221	12 599	Z	Z
Establishments with 100 to 249 employees	18	2 400	78 272	220 026	219 648	208 326	138 220	70 484	11 322	Z	Z
Establishments with 250 to 499 employees	—	—	—	—	—	—	—	—	—	—	—
Establishments with 500 to 999 employees	—	—	—	—	—	—	—	—	—	—	—
Establishments with 1,000 employees or more	—	—	—	—	—	—	—	—	—	—	—

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235430, TILE, MARBLE, TERRAZZO, & MOSAIC CONTRACTORS											
Total	6 847	39 755	1 064 176	3 533 003	3 491 653	3 290 990	1 992 726	1 339 614	200 663	2	2
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	1 153	1 486	20 824	86 280	85 961	84 080	53 824	30 575	1 881	9	8
Establishments with value of business done \$100,000 to \$249,999	2 225	4 813	87 679	349 876	346 596	331 973	209 940	125 313	14 623	6	5
Establishments with value of business done \$250,000 to \$499,999	998	4 816	105 363	343 821	342 131	325 313	203 676	123 327	16 818	7	7
Establishments with value of business done \$500,000 to \$999,999	744	6 367	160 384	528 192	524 104	493 372	287 795	209 665	30 732	6	6
Establishments with value of business done \$1,000,000 to \$2,499,999	597	9 439	266 803	885 965	870 555	812 731	486 827	341 314	57 824	5	5
Establishments with value of business done \$2,500,000 to \$4,999,999	203	6 744	221 841	685 491	680 137	636 368	374 423	267 299	43 769	2	5
Establishments with value of business done \$5,000,000 to \$9,999,999	61	3 739	128 034	415 945	405 425	385 075	234 711	160 884	20 350	1	3
Establishments with value of business done \$10,000,000 or more	14	1 699	66 918	213 925	213 284	199 092	126 349	73 384	14 192	Z	Z

Table 7. **Value of Construction Work for Establishments With Payroll by Type of Construction: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
235430, TILE, MARBLE, TERRAZZO, & MOSAIC CONTRACTORS								
Total	3 491 653	2 364 582	900 261	205 280	2	2	3	4
Building construction, total	3 433 907	2 341 791	889 828	202 288	2	2	3	4
Single-family houses, detached and attached	1 637 944	1 151 124	409 431	77 389	3	4	5	6
Single-family houses, detached	1 439 957	1 022 877	352 663	64 418	3	4	4	6
Single-family houses, attached	197 987	128 248	56 768	12 971	11	10	18	11
Apartment buildings, apartment type condominiums and cooperatives	160 215	99 161	43 618	17 435	9	13	7	20
Manufacturing and light industrial buildings	91 723	58 920	21 326	11 478	7	7	9	28
Hotels and motels	149 957	95 728	42 120	12 109	4	5	6	5
Office buildings	333 935	217 592	98 317	18 027	2	2	5	7
All other commercial buildings, nec	447 489	308 389	109 351	29 748	5	5	10	8
Religious buildings	51 344	26 778	19 614	4 952	7	6	11	21
Educational buildings	236 368	162 699	62 330	11 338	4	4	5	9
Health care and institutional buildings	118 272	63 864	47 079	7 329	4	4	7	6
Public safety buildings	49 772	36 661	10 481	2 629	6	6	18	7
Amusement, social, and recreational buildings	42 301	31 349	8 449	2 502	5	5	8	2
All other nonresidential buildings	114 588	89 525	17 711	7 353	11	12	12	34
Nonbuilding construction, total	36 217	22 791	10 434	2 992	18	28	10	9
Other nonbuilding construction, nec	36 217	22 791	10 434	2 992	18	28	10	9
Construction work, nsk	21 530	X	X	X	9	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
235430, TILE, MARBLE, TERRAZZO, & MOSAIC CONTRACTORS											
Total	6 847	39 755	1 064 176	3 491 653	X	3 290 990	1 992 726	200 663	2	2	6
Establishments not specializing ..	1 323	12 221	361 044	1 144 560	X	1 078 759	653 590	65 802	3	3	9
Establishments specializing 51 percent or more	5 524	27 534	703 132	2 347 093	1 991 867	2 212 232	1 339 136	134 862	2	3	8
Single-family houses, detached and attached											
All establishments specializing	4 310	19 222	464 173	1 559 443	1 362 565	1 471 895	888 091	87 548	3	4	12
Specialization 100 percent	2 282	7 512	171 705	602 577	602 577	565 721	351 235	36 855	6	6	15
Specialization 90 to 99 percent ...	721	4 084	99 500	324 769	306 852	305 043	186 851	19 725	6	7	20
Specialization 80 to 89 percent ...	681	3 026	67 330	216 079	177 627	208 364	127 727	7 715	8	8	19
Specialization 70 to 79 percent ...	331	2 118	62 006	177 863	130 564	171 079	105 859	6 784	7	6	21
Specialization 60 to 69 percent ...	254	2 007	51 664	200 236	123 752	185 382	94 883	^{\$14} 854	9	19	53
Specialization 51 to 59 percent ...	42	474	11 969	37 919	21 194	36 305	21 535	1 614	16	14	39
Apartment buildings, apartment type condominiums and cooperatives											
All establishments specializing	111	433	10 877	50 858	45 123	45 698	21 495	^{\$5} 159	17	23	46
Specialization 100 percent	^{\$46}	162	4 628	13 536	13 536	13 152	7 795	S	27	36	S
Specialization 90 to 99 percent ...	^{\$27}	^{\$104}	1 770	^{\$20} 903	^{\$19} 708	^{\$16} 752	^{\$4} 713	^{\$4} 151	41	45	56
Specialization 80 to 89 percent ...	S	^{\$42}	S	S	S	S	S	—	74	S	—
Specialization 70 to 79 percent ...	^{\$11}	52	1 095	5 138	3 737	4 692	2 466	446	35	26	10
Specialization 60 to 69 percent ...	^{\$9}	^{\$34}	^{\$728}	^{\$3} 060	^{\$1} 961	^{\$2} 881	^{\$1} 669	^{\$179}	57	53	72
Specialization 51 to 59 percent ...	S	39	979	3 068	1 787	3 068	1 691	—	24	24	—
Office buildings											
All establishments specializing	129	1 804	59 294	175 240	127 725	166 189	108 022	9 051	5	4	11
Specialization 100 percent	S	478	10 030	31 928	31 928	31 233	22 168	696	13	8	24
Specialization 90 to 99 percent ...	^{\$7}	^{\$28}	^{\$770}	^{\$1} 969	^{\$1} 840	^{\$1} 917	^{\$1} 455	^{\$2}	40	45	49
Specialization 80 to 89 percent ...	8	125	4 347	12 323	10 151	12 210	5 792	113	13	15	31
Specialization 70 to 79 percent ...	29	502	19 497	52 269	38 835	50 704	32 659	1 565	7	7	Z
Specialization 60 to 69 percent ...	14	194	6 329	17 165	10 729	16 830	9 873	^{\$335}	8	10	55
Specialization 51 to 59 percent ...	^{\$23}	479	18 322	59 585	34 243	53 295	36 074	6 290	6	7	16
All other commercial buildings, nec											
All establishments specializing	540	2 912	69 494	257 769	212 954	241 248	138 772	16 521	9	10	21
Specialization 100 percent	265	1 327	29 826	113 299	113 299	103 813	59 912	9 487	15	13	26
Specialization 90 to 99 percent ...	58	230	5 808	20 117	19 277	19 050	9 273	^{\$1} 067	32	34	52
Specialization 80 to 89 percent ...	50	317	6 018	17 777	14 435	17 552	11 085	226	23	21	25
Specialization 70 to 79 percent ...	49	392	10 025	28 987	20 877	28 035	17 544	^{\$953}	27	23	56
Specialization 60 to 69 percent ...	74	356	10 834	36 113	22 247	34 003	20 313	2 109	19	17	27
Specialization 51 to 59 percent ...	43	290	6 982	^{\$41} 476	^{\$22} 818	^{\$38} 796	20 646	S	26	46	S

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
235430, TILE, MARBLE, TERRAZZO, & MOSAIC CONTRACTORS		
Total	3 533 003	2
Special trade contractors, total	3 413 651	2
Carpet laying or removal contractor	50 574	11
Marble, granite, and slate contractor: exterior	74 654	5
Marble, granite, and slate contractor: interior	776 096	3
Resilient floor laying contractor	37 128	11
Terrazzo contractor	171 199	5
Tile contractor	2 303 999	2
Other construction activities, nec	78 157	11
Other business activities secondary to construction activities, total	41 195	9
Other business activities, secondary to construction activities, nec	21 694	10
Retail trade, secondary to construction activities	19 500	14

Table 10. **Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
235430, TILE, MARBLE, TERRAZZO, & MOSAIC CONTRACTORS											
Total	6 847	39 755	1 064 176	3 491 653	X	3 290 990	1 992 726	200 663	2	2	6
Establishments not specializing	393	3 849	111 039	324 564	X	303 101	192 963	21 464	5	6	13
Establishments specializing 51 percent or more	6 453	35 906	953 137	3 167 089	2 786 601	2 987 890	1 799 763	179 199	2	2	7
Marble, granite, and slate contractor: interior											
All establishments specializing	786	7 310	204 970	637 651	547 641	604 960	379 837	32 691	4	4	9
Specialization 100 percent	492	3 362	82 892	277 372	277 372	263 528	160 803	13 844	6	6	16
Specialization 90 to 99 percent	84	1 168	33 438	107 823	99 704	102 458	62 423	5 365	10	10	32
Specialization 80 to 89 percent	52	714	21 504	63 339	52 733	58 284	37 332	5 055	20	12	3
Specialization 70 to 79 percent	49	665	20 871	58 714	42 645	54 914	35 000	3 799	17	13	24
Specialization 60 to 69 percent	59	727	20 793	57 825	36 010	55 650	36 420	2 176	21	19	34
Specialization 51 to 59 percent	50	675	25 472	72 578	39 177	70 127	47 860	2 452	8	8	9
Tile contractor											
All establishments specializing	5 557	27 256	706 427	2 410 116	2 133 360	2 267 128	1 342 527	142 988	2	3	9
Specialization 100 percent	3 713	14 488	367 061	1 245 865	1 245 865	1 174 793	705 939	71 072	4	4	12
Specialization 90 to 99 percent	573	3 434	84 243	275 985	257 054	261 765	158 689	14 221	6	9	20
Specialization 80 to 89 percent	471	3 272	87 204	283 607	232 784	271 468	165 307	12 140	7	7	17
Specialization 70 to 79 percent	435	2 556	68 183	278 612	201 713	254 240	137 889	24 372	7	13	31
Specialization 60 to 69 percent	225	2 467	70 530	231 410	145 370	213 679	120 000	17 732	8	9	22
Specialization 51 to 59 percent	141	1 040	29 206	94 636	50 574	91 184	54 703	\$3 451	10	15	50

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
235430, TILE, MARBLE, TERRAZZO, & MOSAIC CONTRACTORS										
United States	3 491 653	4 455	2 572 080	1 329	247 726	2 351	671 847	2	3	4
Alabama	37 484	45	23 992	20	5 047	33	8 445	7	13	20
Alaska	7 772	8	3 469	12	⁵³ 476	6	827	24	16	52
Arizona	101 413	166	75 326	12	3 779	87	22 308	6	9	15
Arkansas	13 153	³⁶	4 387	14	771	⁴⁰	7 996	18	32	27
California	646 083	715	492 770	²⁸	3 268	472	150 044	5	7	37
Colorado	42 322	92	36 092	¹⁸	¹ 811	39	4 420	21	24	41
Connecticut	26 536	⁴⁹	16 097	30	3 559	²¹	6 880	20	34	12
Delaware	6 038	10	D	8	D	2	D	7	D	D
District of Columbia	8 629	—	—	19	8 629	—	—	4	—	4
Florida	343 764	522	276 747	32	9 730	253	57 287	8	10	3
Georgia	85 952	64	61 217	31	6 323	76	18 412	6	9	5
Hawaii *	D	²⁶	24 734	1	D	²¹	D	D	15	D
Idaho	16 614	55	13 544	7	1 062	8	² 009	31	39	3
Illinois	176 848	153	153 607	53	6 802	36	16 439	4	4	17
Indiana	54 654	57	46 567	37	3 353	21	⁴ 733	8	8	12
Iowa	³⁰ 464	³⁷	²⁴ 106	⁴²	3 065	¹³	³ 292	41	51	32
Kansas	25 778	²⁵	8 851	41	14 605	¹⁵	² 321	8	14	13
Kentucky	31 830	44	20 344	66	5 239	21	S	16	12	30
Louisiana	39 930	40	17 151	17	8 000	37	¹⁴ 778	7	32	8
Maine	2 591	²	D	⁴	D	⁴	⁵⁴³	31	D	D
Maryland	57 045	99	30 450	25	12 019	39	14 576	9	15	6
Massachusetts	44 121	71	27 941	³⁸	4 163	²⁴	¹² 017	10	12	19
Michigan	70 069	84	53 140	34	2 732	76	14 197	15	19	39
Minnesota	49 216	64	33 155	¹⁸	²²⁴	⁴¹	15 837	7	8	50
Mississippi	17 273	5	4 477	25	10 262	11	2 534	1	1	1
Missouri	43 999	63	34 575	³⁸	5 820	¹⁸	3 605	6	8	17
Montana	⁸ 042	¹⁶	⁶ 992	⁵	105	7	945	64	74	10
Nebraska	10 590	21	D	¹¹	D	2	D	7	D	D
Nevada	107 341	81	84 867	²⁷	4 313	³³	18 161	4	5	25
New Hampshire	3 146	12	2 712	5	434	—	—	17	20	20
New Jersey	104 119	168	70 326	56	10 878	85	22 915	9	12	12
New Mexico	15 464	⁴⁷	10 373	3	1 682	²⁶	3 410	26	37	Z
New York	252 529	237	173 493	62	32 461	127	46 575	5	6	10
North Carolina	105 943	141	77 775	54	9 881	103	18 287	8	11	16
North Dakota	D	²	D	¹	D	3	D	D	D	D
Ohio	76 961	108	57 773	35	2 590	41	16 598	13	18	18
Oklahoma	³⁸ 393	62	³² 033	²²	829	20	5 530	43	51	34
Oregon	29 074	72	17 129	²⁹	⁷ 532	17	⁴ 413	19	18	63
Pennsylvania	106 350	76	81 699	69	6 521	70	18 130	5	5	18
Rhode Island	6 332	³⁷	3 964	⁵	168	¹⁸	² 199	14	22	7
South Carolina	35 839	70	19 511	29	9 224	43	⁷ 104	13	22	11
South Dakota	D	4	D	2	D	2	D	D	D	D
Tennessee	64 775	101	45 681	28	6 328	24	12 766	15	21	10
Texas	247 994	272	198 171	⁷⁰	3 871	155	45 952	12	15	37
Utah	65 521	105	45 821	⁶	¹ 849	44	17 851	12	16	70
Vermont	1 730	4	D	4	D	3	D	3	D	D
Virginia	92 724	125	64 326	79	14 818	32	13 580	6	8	9
Washington	52 046	111	44 929	16	¹ 246	23	⁵ 871	17	20	42
West Virginia	⁵ 244	⁸	S	24	1 404	—	—	60	S	8
Wisconsin	34 933	38	22 199	4	471	60	12 263	7	9	2
Wyoming	4 577	7	D	12	D	²	D	14	D	D

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of socialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **All other nonresidential buildings.** Includes nonresidential buildings that are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military non-building such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Carpentry Contractors

1997

Issued August 1999

EC97C-2355A

1997 Economic Census

Construction

Industry Series



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U.S. Department of Commerce
Economics and Statistics Administration
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Construction

Industry Series



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
235510	Carpentry contractors	44 858	230 409	5 490 471	20 311 034	18 006 142	11 031 365	7 306 600	251 195
175100	Carpentry work special trade contractors	44 858	230 409	5 490 471	20 311 034	18 006 142	11 031 365	7 306 600	251 195

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers	
235510, CARPENTRY CONTRACTORS										
United States	44 858	230 409	185 610	172 661	185 313	195 586	188 882	5 490 471	4 086 221	1
Alabama	493	1 719	1 361	1 413	1 339	1 361	1 330	31 404	23 866	11
Alaska	107	582	485	393	548	598	401	*15 142	11 212	27
Arizona	609	10 880	9 618	8 687	9 088	10 143	10 555	258 715	206 846	3
Arkansas	250	831	652	625	679	684	622	14 933	10 753	15
California	2 733	33 707	28 925	26 054	29 378	30 440	29 830	872 323	679 452	2
Colorado	1 426	5 278	3 902	3 789	4 168	3 975	3 678	112 115	78 503	7
Connecticut	635	2 103	1 556	1 449	1 494	1 658	1 621	60 065	43 362	7
Delaware	189	1 017	863	786	891	900	873	23 615	19 002	12
District of Columbia	9	*75	*57	*58	*54	*53	*63	*1 960	D	59
Florida	2 287	10 656	8 198	7 940	8 179	8 409	8 263	227 688	153 640	4
Georgia	924	3 927	3 073	3 230	2 896	3 136	3 028	77 812	53 450	13
Hawaii *	59	548	394	403	398	387	389	20 698	15 264	8
Idaho	428	1 733	1 364	1 112	1 563	1 466	1 313	30 667	24 187	14
Illinois	2 335	14 976	12 169	10 795	11 929	13 265	12 688	473 490	367 447	3
Indiana	1 239	5 343	3 862	3 802	3 819	4 022	3 805	114 362	77 724	6
Iowa	726	2 681	2 241	1 990	2 316	2 467	2 191	49 891	41 122	8
Kansas	685	2 448	2 127	2 097	2 148	2 137	2 128	48 126	37 851	8
Kentucky	636	2 254	1 750	1 891	1 722	1 789	1 597	46 598	32 242	9
Louisiana	536	1 947	1 673	1 737	1 772	1 771	1 412	31 959	24 303	10
Maine	438	988	779	711	742	802	863	20 387	16 473	12
Maryland	971	5 239	4 235	4 035	4 307	4 400	4 199	131 057	93 097	7
Massachusetts	1 061	4 244	3 309	3 063	3 341	3 486	3 347	112 405	83 039	6
Michigan	2 024	10 448	8 371	7 487	8 634	8 965	8 398	264 216	202 199	5
Minnesota	1 080	3 867	3 104	2 742	3 070	3 539	3 066	102 370	79 326	4
Mississippi	234	708	633	554	556	683	738	14 693	11 476	15
Missouri	1 148	5 455	4 569	4 495	4 683	4 875	4 220	123 255	98 215	7
Montana	182	700	600	392	653	710	646	11 449	9 859	16
Nebraska	479	2 067	1 504	1 406	1 430	1 696	1 483	39 466	26 493	6
Nevada	259	5 982	5 247	5 004	5 024	5 458	5 503	165 317	128 933	3
New Hampshire	294	926	762	726	731	776	816	24 650	18 938	11
New Jersey	1 728	6 598	5 019	4 895	5 221	5 161	4 797	174 128	118 894	5
New Mexico	192	1 161	966	993	1 021	940	912	19 088	14 406	14
New York	3 161	13 166	10 043	8 839	9 722	10 776	10 833	357 414	248 304	4
North Carolina	1 699	7 067	5 339	5 109	5 284	5 440	5 525	142 297	99 981	8
North Dakota	182	555	499	442	498	578	479	10 133	8 135	22
Ohio	1 878	9 250	7 148	6 538	7 185	7 491	7 378	205 576	151 909	5
Oklahoma	326	1 593	1 322	1 151	1 251	1 532	1 352	33 898	24 412	11
Oregon	775	3 467	2 930	2 448	2 954	3 158	3 160	74 637	58 527	12
Pennsylvania	1 870	7 886	5 958	5 638	6 017	6 420	5 759	175 902	125 114	4
Rhode Island	266	886	686	566	666	693	820	19 567	13 741	16
South Carolina	744	2 799	2 283	2 235	2 263	2 297	2 337	55 944	44 420	11
South Dakota	197	506	404	404	396	444	372	10 717	7 625	5
Tennessee	639	3 134	2 434	2 357	2 492	2 697	2 189	53 057	37 443	11
Texas	1 761	9 791	7 907	7 351	7 623	8 441	8 212	202 236	139 489	11
Utah	465	1 471	1 203	1 062	1 179	1 294	1 278	30 210	23 823	12
Vermont	182	430	395	292	384	469	436	7 053	5 981	13
Virginia	1 265	6 263	4 823	4 671	4 963	4 745	4 915	149 034	106 017	6
Washington	1 374	4 865	3 951	3 825	3 696	4 018	4 266	112 037	83 461	7
West Virginia	214	757	678	907	506	652	648	12 588	10 364	17
Wisconsin	1 360	5 157	3 997	3 862	4 117	4 082	3 927	120 391	91 595	6
Wyoming	103	277	240	210	324	*209	*218	3 738	D	30

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
235510, CARPENTRY CONTRACTORS										
United States	20 311 034	18 006 142	11 031 365	7 306 600	2 304 892	265 882	251 195	2 026 619	2	3
Alabama	139 542	129 620	78 459	53 422	9 922	1 288	1 251	12 571	15	27
Alaska	56 518	47 196	34 717	12 486	⁹ 322	^s 293	128	3 502	33	34
Arizona	991 562	969 450	429 570	545 814	22 111	9 423	10 049	63 428	3	6
Arkansas	55 779	52 295	31 160	22 379	3 484	656	1 127	7 854	12	37
California	2 907 854	2 729 553	1 490 419	1 276 171	178 300	43 250	30 197	236 515	1	4
Colorado	508 744	422 702	248 530	178 765	86 042	5 273	7 293	52 171	9	16
Connecticut	220 265	187 390	115 296	72 480	32 876	2 733	2 329	22 065	8	33
Delaware	70 076	59 710	38 209	21 645	^s 10 366	1 268	652	9 452	8	17
District of Columbia	11 706	D	8 752	D	D	D	D	544	D	D
Florida	945 449	802 668	503 731	353 218	142 781	13 920	10 418	86 513	5	11
Georgia	297 483	250 453	164 067	S	47 031	4 547	3 415	32 814	9	22
Hawaii *	96 012	77 125	58 426	D	18 887	1 011	D	9 303	9	D
Idaho	100 861	94 615	64 004	S	6 246	1 946	1 966	S	14	27
Illinois	1 525 167	1 352 148	847 640	523 678	173 019	18 643	17 449	138 863	3	8
Indiana	395 231	357 291	208 158	153 727	37 940	5 403	5 774	52 736	6	10
Iowa	195 051	178 998	108 902	71 739	16 054	2 113	4 036	28 521	6	19
Kansas	159 684	145 594	98 888	48 727	14 090	1 186	1 320	15 036	8	13
Kentucky	161 123	144 820	95 793	50 084	16 302	1 845	1 602	14 961	8	34
Louisiana	169 003	140 649	73 199	68 385	^s 28 354	1 228	^s 2 167	15 113	21	49
Maine	98 077	88 560	58 273	31 071	5 573	565	^s 1 350	13 074	13	44
Maryland	455 300	377 984	248 188	133 821	77 316	6 690	6 735	56 652	6	15
Massachusetts	495 363	411 882	254 185	159 826	83 481	9 583	7 870	42 465	8	24
Michigan	854 387	761 016	497 318	270 322	93 372	11 690	10 018	91 391	5	12
Minnesota	330 196	299 796	200 687	104 921	30 400	4 362	7 160	41 146	5	14
Mississippi	72 182	D	46 693	D	D	S	^s 985	5 081	D	46
Missouri	354 105	322 486	239 066	89 339	31 620	4 457	4 920	37 539	6	20
Montana	51 121	46 015	26 090	D	5 106	508	^s 1 457	^s 9 390	21	40
Nebraska	154 642	131 173	91 289	40 949	23 469	1 165	2 205	34 386	10	19
Nevada	590 283	570 215	295 443	276 218	20 068	5 561	4 523	40 562	3	8
New Hampshire	117 324	92 892	68 435	D	24 431	1 084	1 107	9 756	15	24
New Jersey	716 761	613 355	358 475	275 827	103 406	11 140	7 343	72 975	6	20
New Mexico	78 288	67 918	32 644	38 472	^s 10 370	866	^s 863	7 695	25	59
New York	1 353 165	1 167 239	747 918	434 065	185 926	16 392	15 121	132 080	4	10
North Carolina	477 562	416 058	279 522	143 996	61 504	D	6 957	66 642	8	15
North Dakota	46 678	42 523	31 457	14 063	^s 4 155	335	249	4 971	21	31
Ohio	780 733	668 389	428 715	256 187	112 344	12 369	9 284	70 000	4	11
Oklahoma	99 656	95 828	68 861	D	3 828	808	945	11 224	8	17
Oregon	244 415	213 309	157 803	62 857	31 107	3 876	3 417	S	9	17
Pennsylvania	790 665	670 214	396 247	280 904	120 451	8 224	9 905	89 034	4	10
Rhode Island	90 219	80 239	42 957	37 390	9 981	1 097	1 366	8 386	13	39
South Carolina	182 520	162 682	111 327	51 430	19 838	2 991	3 695	23 914	11	28
South Dakota	47 823	44 516	26 275	18 577	^s 3 308	401	577	6 137	11	36
Tennessee	229 965	193 539	117 695	80 281	36 425	2 885	2 425	21 240	13	27
Texas	1 010 075	858 699	594 978	277 959	151 376	10 992	12 136	83 071	30	16
Utah	103 520	95 740	57 357	39 942	7 780	1 153	^s 2 025	13 381	16	48
Vermont	26 501	22 876	15 442	7 465	3 625	209	485	2 285	14	28
Virginia	543 657	469 631	304 003	191 502	74 025	S	10 527	59 600	6	16
Washington	394 792	351 364	242 534	120 185	43 429	6 651	5 006	46 411	7	12
West Virginia	50 772	47 217	31 357	15 860	^s 3 555	405	622	7 755	14	20
Wisconsin	447 061	397 140	253 520	148 335	49 921	5 327	7 434	61 572	7	17
Wyoming	16 113	13 525	8 693	D	^s 2 588	^s 146	S	2 093	16	S

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
235510, CARPENTRY CONTRACTORS			235510, CARPENTRY CONTRACTORS—Con.		
Number of establishments in business during year	44 858	1	Selected costs—Con.		
Number of proprietors and working partners	24 253	2	Cost of selected power, fuels, and lubricants	280 286	2
Total number of employees	230 409	1	Cost of electricity	65 334	3
Number of construction workers in March	172 661	1	Cost of natural gas and manufactured gas	9 845	7
Number of construction workers in May	185 313	1	Cost of gasoline and diesel fuel	196 306	2
Number of construction workers in August	195 586	1	Cost of on-highway use of gasoline and diesel fuel	167 531	3
Number of construction workers in November	188 882	1	Cost of off-highway use of gasoline and diesel fuel	28 774	4
Average number of construction workers	185 610	1	Cost of all other fuels and lubricants	8 801	7
Number of other employees in March	45 957	2	Rental cost for machinery, equipment, and buildings	265 882	3
Number of other employees in May	43 462	2	Rental cost for machinery and equipment	135 046	4
Number of other employees in August	45 482	2	Rental cost for buildings	130 836	3
Number of other employees in November	44 292	2	Selected purchased services	325 673	2
Average number of other employees	44 799	2	Purchased communication services	152 574	2
Payroll, all employees	5 490 471	1	Cost of repairs to buildings and other structures	18 495	6
Payroll, construction workers	4 086 221	1	Cost of repairs to machinery and equipment	154 604	3
Payroll, other employees	1 404 249	1	Value of construction work	20 311 034	2
First-quarter payroll, all employees	1 167 345	1	Value of construction work on government owned projects	1 475 158	4
Fringe benefits, all employees	1 164 437	1	Value of construction work on federally owned projects	405 279	4
Legally required expenditures	873 154	1	Value of construction work on state and locally owned projects	1 069 879	5
Voluntary expenditures	291 283	1	Value of construction work on privately owned projects	18 835 876	2
Value of business done	20 642 856	2	Beginning-of-year gross book value of depreciable assets	1 853 949	2
Value of construction work	20 311 034	2	Capital expenditures, other than land	251 195	3
Value of construction work subcontracted in from others	11 182 316	1	Retirements and disposition of depreciable assets	78 525	6
Other business receipts	331 822	8	End-of-year gross book value of depreciable assets	2 026 619	2
Net value of construction	18 006 142	2	Depreciation charges during year	265 163	2
Value added	11 031 365	2	Number of establishments with inventories	8 742	3
Selected costs	9 611 491	2	Value of construction work for establishments with inventories	7 210 674	4
Cost of materials, components, and supplies	7 026 314	2	End of 1997, inventories of materials and supplies	303 139	3
Cost of construction work subcontracted out to others	2 304 892	3	End of 1996, inventories of materials and supplies	254 448	3
			Number of establishments with no inventories	19 018	2
			Value of construction work for establishments with no inventories	8 289 320	2
			Number of establishments not reporting inventories	17 098	2
			Value of construction work for establishments not reporting inventories	4 811 041	2

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235510, CARPENTRY CONTRACTORS											
Total	44 858	230 409	5 490 471	20 642 856	20 311 034	18 006 142	11 031 365	7 306 600	2 304 892	1	2
Establishments with 1 to 4 employees	S	56 547	1 031 124	5 046 019	5 015 798	4 317 828	2 779 131	1 568 918	697 970	2	2
Establishments with 5 to 9 employees	7 283	45 526	955 657	3 530 659	3 447 337	3 073 038	1 983 751	1 172 610	374 299	3	3
Establishments with 10 to 19 employees	3 001	39 221	994 009	3 548 100	3 488 262	2 935 089	1 925 045	1 069 882	553 173	4	4
Establishments with 20 to 49 employees	1 182	34 116	1 005 451	3 557 968	3 483 599	3 054 674	1 766 374	1 362 670	428 924	2	2
Establishments with 50 to 99 employees	323	21 171	582 682	1 918 451	1 891 344	1 754 476	1 108 051	673 532	136 868	6	14
Establishments with 100 to 249 employees	140	21 259	580 480	1 897 857	1 879 197	1 795 307	917 581	896 386	83 890	2	Z
Establishments with 250 to 499 employees	26	8 562	225 458	752 282	D	731 954	371 596	D	D	Z	Z
Establishments with 500 to 999 employees	5	D	D	D	D	D	D	D	D	D	D
Establishments with 1,000 employees or more	1	D	D	D	D	D	D	D	D	D	D

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235510, CARPENTRY CONTRACTORS											
Total	44 858	230 409	5 490 471	20 642 856	20 311 034	18 006 142	11 031 365	7 306 600	2 304 892	1	2
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	S	12 761	173 450	S	S	S	S	S	S	5	S
Establishments with value of business done \$100,000 to \$249,999	14 666	39 813	669 382	2 364 131	2 351 130	2 127 586	1 480 592	659 996	223 543	3	3
Establishments with value of business done \$250,000 to \$499,999	6 690	30 737	628 956	2 296 049	2 280 475	2 054 233	1 357 168	712 638	226 242	4	4
Establishments with value of business done \$500,000 to \$999,999	3 925	32 230	766 389	2 733 171	2 695 739	2 352 717	1 529 919	860 229	343 022	4	4
Establishments with value of business done \$1,000,000 to \$2,499,999	2 481	36 733	993 270	3 732 045	3 631 265	3 124 008	1 954 435	1 270 353	507 257	3	4
Establishments with value of business done \$2,500,000 to \$4,999,999	817	24 533	724 953	2 751 080	2 709 109	2 331 904	1 388 578	985 297	377 205	3	3
Establishments with value of business done \$5,000,000 to \$9,999,999	304	17 758	528 576	2 043 534	1 994 029	1 762 596	997 776	814 325	231 433	1	1
Establishments with value of business done \$10,000,000 or more	198	30 239	945 534	3 901 689	3 831 938	3 491 834	1 776 543	1 785 042	340 104	3	7

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
235510, CARPENTRY CONTRACTORS								
Total	20 311 034	12 638 889	5 397 669	1 912 023	2	2	2	7
Building construction, total	19 781 363	12 530 137	5 360 124	1 891 102	2	2	2	7
Single-family houses, detached and attached	12 400 677	8 342 239	2 950 557	1 107 881	2	2	3	12
Single-family houses, detached	10 599 789	7 120 720	2 547 672	931 397	3	2	3	14
Single-family houses, attached	1 800 888	1 221 519	402 885	176 484	3	3	6	8
Apartment buildings, apartment type condominiums and cooperatives	1 638 114	1 215 177	296 829	126 108	4	5	5	10
Manufacturing and light industrial buildings	520 098	246 618	144 223	129 257	6	5	7	15
Manufacturing and light industrial warehouses	290 798	144 457	90 127	56 213	7	6	17	10
Hotels and motels	274 895	188 202	65 152	21 541	6	5	17	18
Office buildings	1 288 371	550 670	631 889	105 812	3	3	6	7
All other commercial buildings, nec	1 328 520	741 206	463 787	123 527	4	5	7	8
Commercial warehouses	400 039	244 254	88 491	67 294	6	7	8	8
Educational buildings	574 498	260 132	289 662	24 704	6	9	6	18
Health care and institutional buildings	387 787	204 353	166 691	16 743	6	9	8	14
Farm buildings, nonresidential	130 182	99 525	16 727	13 930	13	16	14	14
All other nonresidential buildings	547 382	293 303	155 988	98 091	5	6	7	8
Nonbuilding construction, total	167 218	108 752	37 545	20 921	15	15	22	9
Other nonbuilding construction, nec	167 218	108 752	37 545	20 921	15	15	22	9
Construction work, nsk	362 454	X	X	X	5	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
235510, CARPENTRY CONTRACTORS											
Total	44 858	230 409	5 490 471	20 311 034	X	18 006 142	11 031 365	2 304 892	1	2	3
Establishments not specializing ..	4 438	33 268	938 752	3 329 019	X	2 935 508	1 861 438	393 512	3	3	8
Establishments specializing 51 percent or more	40 420	197 141	4 551 719	16 982 016	15 317 745	15 070 636	9 169 928	1 911 380	1	2	3
Single-family houses, detached and attached											
All establishments specializing	31 644	146 271	3 164 145	11 902 635	10 910 099	10 693 953	6 458 220	1 208 682	1	3	4
Specialization 100 percent	22 067	84 003	1 693 024	6 575 201	6 575 201	5 859 677	3 758 783	715 524	2	4	5
Specialization 90 to 99 percent ...	3 707	24 073	565 832	2 072 380	1 944 504	1 866 619	1 072 131	205 762	4	3	11
Specialization 80 to 89 percent ...	2 625	15 821	360 274	1 303 068	1 074 734	1 179 282	647 484	123 786	4	4	15
Specialization 70 to 79 percent ...	1 815	12 460	308 098	1 076 453	787 417	1 000 931	546 631	75 522	5	5	11
Specialization 60 to 69 percent ...	1 101	7 325	176 504	653 611	404 844	595 247	332 684	58 364	7	7	18
Specialization 51 to 59 percent ...	328	2 589	60 413	221 922	123 400	192 198	100 507	29 724	10	9	8
Apartment buildings, apartment type condominiums and cooperatives											
All establishments specializing	1 544	14 324	350 108	1 278 559	1 101 835	1 073 760	625 410	204 799	5	5	11
Specialization 100 percent	784	5 619	134 680	578 752	578 752	446 772	255 829	131 980	7	11	17
Specialization 90 to 99 percent ...	173	2 263	50 093	179 025	168 533	160 741	87 671	18 284	11	8	22
Specialization 80 to 89 percent ...	133	1 141	29 226	89 227	72 421	73 821	46 581	15 406	11	10	17
Specialization 70 to 79 percent ...	185	2 578	66 302	203 491	146 972	192 602	112 619	10 888	18	12	26
Specialization 60 to 69 percent ...	167	1 754	43 429	137 814	86 106	120 130	81 482	17 685	10	9	13
Specialization 51 to 59 percent ...	S	970	26 378	90 250	49 050	79 695	41 228	10 556	11	6	16
Manufacturing and light industrial warehouses											
All establishments specializing	119	657	22 896	90 763	62 051	79 458	45 217	11 305	13	13	21
Specialization 100 percent	S	90	2 517	D	9 223	D	6 469	D	30	D	D
Specialization 90 to 99 percent ...	S	D	D	S	D	D	D	D	D	S	D
Specialization 80 to 89 percent ...	S	D	D	D	D	D	D	D	D	D	D
Specialization 70 to 79 percent ...	^s 119	^s 119	^s 3 600	^s 13 560	^s 9 597	^s 10 493	^s 6 477	^s 3 067	52	62	60
Specialization 60 to 69 percent ...	10	137	5 646	21 926	13 372	19 435	10 539	^s 2 491	24	25	61
Specialization 51 to 59 percent ...	^s 11	234	7 897	31 433	17 360	31 232	15 452	201	13	10	3
Hotels and motels											
All establishments specializing	105	943	23 417	96 791	77 540	84 032	54 943	12 759	16	14	25
Specialization 100 percent	^s 29	288	6 448	31 007	31 007	27 750	17 422	3 257	9	8	6
Specialization 90 to 99 percent ...	^s 4	^s 24	S	S	S	S	S	S	74	S	S
Specialization 80 to 89 percent ...	S	S	5 692	20 549	16 702	17 119	9 175	3 430	S	20	4
Specialization 70 to 79 percent ...	^s 3	^s 67	^s 2 899	^s 14 909	^s 11 062	^s 11 578	^s 9 238	^s 3 331	46	62	71
Specialization 60 to 69 percent ...	16	175	5 742	15 001	9 000	14 615	11 893	S	27	34	S
Specialization 51 to 59 percent ...	S	^s 116	2 305	^s 12 463	^s 7 029	^s 10 178	^s 4 755	S	50	51	S
Office buildings											
All establishments specializing	855	7 933	273 843	900 857	779 280	765 655	482 859	135 202	5	5	9
Specialization 100 percent	482	3 377	116 334	361 307	361 307	306 850	213 872	54 457	8	9	21
Specialization 90 to 99 percent ...	S	1 339	49 607	198 080	185 774	160 210	88 507	37 870	9	7	14
Specialization 80 to 89 percent ...	65	676	25 764	92 393	75 478	85 286	50 788	7 107	13	7	8
Specialization 70 to 79 percent ...	59	770	25 757	73 958	53 611	67 647	40 523	6 311	11	7	2
Specialization 60 to 69 percent ...	45	955	34 983	104 557	64 540	80 431	48 771	24 126	5	4	4
Specialization 51 to 59 percent ...	76	816	21 399	70 562	38 570	65 232	40 398	5 331	22	23	27
All other commercial buildings, nec											
All establishments specializing	1 572	10 290	282 680	939 835	831 661	818 099	569 459	121 736	6	6	11
Specialization 100 percent	986	6 258	168 427	554 687	554 687	473 098	350 727	81 589	7	7	15
Specialization 90 to 99 percent ...	185	1 107	29 501	99 862	93 227	89 597	50 594	10 265	19	19	27
Specialization 80 to 89 percent ...	37	430	16 952	60 081	48 659	47 575	33 583	12 506	19	12	20
Specialization 70 to 79 percent ...	S	859	18 695	64 831	46 197	59 246	33 645	5 586	19	20	36
Specialization 60 to 69 percent ...	104	557	12 372	41 278	25 210	36 051	20 601	^s 5 227	18	20	48
Specialization 51 to 59 percent ...	^s 55	1 079	36 733	119 096	63 681	112 532	80 310	^s 6 565	35	24	49

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997—Con.

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				A	E						
235510, CARPENTRY CONTRACTORS—Con.											
Commercial warehouses											
All establishments specializing	231	1 706	43 902	186 973	148 847	164 080	75 868	22 894	22	11	10
Specialization 100 percent	⁶⁷	310	9 850	52 546	52 546	47 115	18 315	5 431	10	16	16
Specialization 90 to 99 percent ...	⁹	D	D	D	D	D	D	D	D	D	D
Specialization 80 to 89 percent ...	7	228	7 719	38 603	31 287	38 252	16 066	351	4	2	2
Specialization 70 to 79 percent ...	³⁹	407	11 691	43 907	32 379	31 264	15 619	12 643	23	15	2
Specialization 60 to 69 percent ...	108	⁶⁶⁸	^{12 584}	47 434	28 649	43 294	^{22 589}	^{4 139}	55	36	53
Specialization 51 to 59 percent ...	1	D	D	D	D	D	D	D	D	D	D
Educational buildings											
All establishments specializing	309	2 314	81 084	367 154	295 733	288 265	155 055	78 889	7	9	20
Specialization 100 percent	S	469	16 663	109 890	109 890	72 043	37 423	37 847	18	23	39
Specialization 90 to 99 percent ...	12	219	7 320	26 091	24 671	D	13 922	D	13	5	D
Specialization 80 to 89 percent ...	23	378	10 885	50 305	41 036	37 436	20 401	^{12 870}	23	27	44
Specialization 70 to 79 percent ...	55	701	24 789	96 797	70 476	83 353	52 865	13 443	14	14	10
Specialization 60 to 69 percent ...	⁶⁹	296	13 213	57 641	35 175	49 353	17 572	8 288	12	18	19
Specialization 51 to 59 percent ...	7	251	8 214	26 429	14 484	D	12 871	D	Z	Z	D
Health care and institutional buildings											
All establishments specializing	S	1 536	42 201	168 024	133 104	135 201	80 261	^{32 823}	17	17	40
Specialization 100 percent	⁵³	¹³⁸	4 121	17 505	17 505	11 737	6 245	5 768	48	22	5
Specialization 90 to 99 percent ...	S	S	S	S	S	34 520	25 245	S	S	S	S
Specialization 80 to 89 percent ...	¹⁵	D	D	D	D	D	D	D	D	D	D
Specialization 70 to 79 percent ...	³³	551	13 343	75 744	55 059	59 617	28 257	S	29	30	S
Specialization 60 to 69 percent ...	S	190	6 800	21 519	13 140	20 044	15 747	^{1 474}	36	26	51
Specialization 51 to 59 percent ...	2	D	D	D	D	D	D	D	D	D	D

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
235510, CARPENTRY CONTRACTORS		
Total	20 642 856	2
Special trade contractors, total	18 914 910	2
Carpentry contractor	11 188 390	3
Framing contractor	5 338 886	2
Garage door and overhead door installation contractor	1 895 459	4
Siding contractor	293 076	6
Steel framing contractor	199 100	11
Other construction activities, nec	1 149 885	5
Other business activities secondary to construction activities, total	326 484	8
Other business activities, secondary to construction activities, nec	145 187	10
Retail trade, secondary to construction activities	82 982	9
Wholesale trade, secondary to construction activities	98 316	17
Kind of business activity, nsk	251 579	6

Table 10. Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
235510, CARPENTRY CONTRACTORS											
Total	44 858	230 409	5 490 471	20 311 034	X	18 006 142	11 031 365	2 304 892	1	2	3
Establishments not specializing	3 681	15 919	367 297	1 740 964	X	1 278 011	771 850	462 953	5	6	9
Establishments specializing 51 percent or more	41 177	214 490	5 123 174	18 570 072	17 315 603	16 728 132	10 259 516	1 841 939	1	2	3
Carpentry contractor											
All establishments specializing	27 569	122 226	3 029 239	11 233 139	10 379 259	10 031 430	6 212 152	1 201 709	2	3	3
Specialization 100 percent	19 828	84 164	2 110 288	7 669 415	7 669 415	6 919 135	4 246 956	750 280	2	2	4
Specialization 90 to 99 percent	1 915	9 545	246 869	1 028 573	971 874	929 402	608 733	99 171	12	25	16
Specialization 80 to 89 percent	1 485	6 972	160 091	622 733	515 012	537 664	333 209	85 069	7	7	10
Specialization 70 to 79 percent	1 668	7 493	187 540	722 830	529 665	619 532	372 183	103 298	7	7	12
Specialization 60 to 69 percent	1 573	7 382	168 736	655 246	407 016	557 033	343 255	98 213	8	7	13
Specialization 51 to 59 percent	1 099	6 671	155 715	534 341	286 277	468 663	307 817	65 678	7	8	20
Framing contractor											
All establishments specializing	8 884	71 138	1 537 694	5 078 169	4 826 131	4 542 630	2 784 562	535 539	2	2	6
Specialization 100 percent	6 675	54 904	1 164 746	3 823 583	3 823 583	3 458 237	2 144 081	365 346	3	2	7
Specialization 90 to 99 percent	909	6 060	135 831	403 261	379 584	376 918	240 330	26 343	6	5	15
Specialization 80 to 89 percent	456	3 787	82 144	308 295	256 791	264 960	138 271	43 335	8	8	24
Specialization 70 to 79 percent	458	3 730	90 368	328 528	239 946	265 598	156 942	62 930	11	10	29
Specialization 60 to 69 percent	266	1 701	39 815	123 192	76 706	98 969	64 121	24 223	15	9	9
Specialization 51 to 59 percent	120	955	24 789	91 310	49 520	77 948	40 817	13 362	9	4	5
Garage door and overhead door installation contractor											
All establishments specializing	2 322	16 922	460 206	1 899 112	1 778 263	1 822 848	1 032 927	76 265	4	4	17
Specialization 100 percent	1 783	11 529	305 384	1 323 267	1 323 267	1 276 048	720 969	47 218	6	5	19
Specialization 90 to 99 percent	143	1 763	49 481	207 903	196 650	200 587	100 207	7 317	9	9	8
Specialization 80 to 89 percent	104	737	23 705	93 217	77 265	89 743	54 627	3 474	14	11	11
Specialization 70 to 79 percent	112	1 171	30 281	112 578	84 362	97 656	62 780	*14 922	19	24	59
Specialization 60 to 69 percent	114	971	30 480	95 614	61 519	94 177	54 203	1 437	12	8	38
Specialization 51 to 59 percent	65	S	S	S	S	S	S	1 897	S	S	22
Steel framing contractor											
All establishments specializing	151	1 349	33 868	111 880	84 178	100 085	70 909	11 794	13	17	35
Specialization 100 percent	*36	330	8 122	27 455	27 455	25 482	11 183	1 973	16	13	22
Specialization 90 to 99 percent	*25	163	*4 910	15 828	14 246	15 575	5 441	S	37	37	S
Specialization 80 to 89 percent	S	D	D	D	D	D	D	D	D	D	D
Specialization 70 to 79 percent	2	D	D	D	D	D	D	D	D	D	D
Specialization 60 to 69 percent	*47	492	12 674	43 959	26 736	37 813	S	*6 146	32	39	53
Specialization 51 to 59 percent	*32	308	5 590	14 748	7 734	14 014	9 503	734	6	8	Z

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
235510, CARPENTRY CONTRACTORS										
United States	20 311 034	25 858	14 409 514	4 622	1 047 789	18 751	4 853 732	2	2	4
Alabama	140 082	254	78 364	66	^{\$10} 937	238	50 780	13	19	41
Alaska	59 765	73	^{\$45} 823	S	S	35	10 696	33	42	S
Arizona	940 843	377	805 289	43	30 356	232	105 198	3	4	10
Arkansas	51 507	139	36 388	^{\$33}	^{\$1} 771	91	13 347	9	17	51
California	2 866 946	1 677	2 391 711	41	36 928	1 048	438 307	1	2	1
Colorado	511 095	815	392 034	66	8 837	590	110 225	9	11	16
Connecticut	236 490	414	146 728	275	39 529	219	50 233	8	11	22
Delaware	58 427	141	43 053	104	10 090	42	^{\$5} 284	8	13	25
District of Columbia	31 293	^{\$4}	4 562	81	26 404	6	328	7	24	7
Florida	951 301	1 249	667 702	107	19 839	1 038	263 761	5	7	25
Georgia	315 260	493	190 092	123	^{\$34} 196	430	90 971	10	12	45
Hawaii *	100 297	^{\$36}	87 779	^{\$15}	4 285	23	8 233	7	9	3
Idaho	103 977	248	56 491	^{\$58}	^{\$5} 013	180	42 473	13	13	45
Illinois	1 485 459	1 534	1 228 209	130	27 196	790	230 054	3	4	4
Indiana	422 305	805	269 254	173	42 565	434	110 486	7	9	24
Iowa	198 986	437	111 995	87	11 375	288	75 616	6	10	16
Kansas	168 379	439	104 179	83	15 743	246	48 457	8	13	15
Kentucky	164 292	363	104 146	114	16 660	273	43 487	10	17	13
Louisiana	178 444	358	^{\$117} 871	^{\$42}	11 055	177	49 517	26	40	2
Maine	94 316	279	61 708	^{\$62}	3 912	158	28 696	14	21	39
Maryland	425 026	538	285 432	235	40 270	432	99 324	7	10	11
Massachusetts	516 714	599	329 517	195	48 952	462	138 245	8	12	10
Michigan	860 225	1 209	634 399	72	14 217	812	211 609	5	7	7
Minnesota	325 763	620	229 694	82	9 762	460	86 308	6	8	24
Mississippi	77 496	94	^{\$30} 956	69	13 967	120	^{\$32} 573	28	51	26
Missouri	348 436	666	258 362	97	11 224	480	78 851	7	10	17
Montana	48 345	122	38 144	7	1 532	60	8 669	24	31	Z
Nebraska	151 330	330	124 724	^{\$42}	^{\$10} 581	143	16 025	12	13	53
Nevada	692 359	141	453 076	65	107 642	118	131 642	3	3	2
New Hampshire	81 505	180	52 262	91	15 342	84	13 901	16	22	34
New Jersey	667 552	934	383 901	195	32 114	792	251 537	6	9	21
New Mexico	83 420	119	60 500	^{\$13}	^{\$5} 570	72	17 350	22	31	58
New York	1 372 087	1 647	835 659	241	66 943	1 489	469 484	4	6	9
North Carolina	459 418	746	292 940	110	10 544	953	155 934	7	11	24
North Dakota	44 756	88	23 462	7	^{\$1} 075	94	^{\$20} 220	21	33	61
Ohio	779 548	1 121	553 423	169	30 273	757	195 851	4	5	10
Oklahoma	102 157	198	59 418	54	2 623	128	40 117	7	13	19
Oregon	248 705	445	160 557	65	18 321	329	69 327	10	9	8
Pennsylvania	790 640	1 181	571 610	206	42 314	640	176 717	4	6	19
Rhode Island	73 698	155	46 470	80	9 362	104	17 867	14	27	25
South Carolina	198 729	349	100 785	81	^{\$19} 327	388	78 617	11	14	44
South Dakota	48 736	^{\$72}	34 272	60	3 017	125	11 447	13	22	17
Tennessee	224 807	386	153 653	76	11 935	253	59 219	12	18	39
Texas	992 663	960	750 309	62	16 313	791	226 041	26	34	17
Utah	110 097	238	70 328	9	12 837	227	26 932	15	23	Z
Vermont	27 419	117	16 881	43	^{\$3} 670	64	^{\$6} 868	15	16	46
Virginia	540 404	707	311 074	210	60 961	550	168 369	6	9	10
Washington	422 096	701	249 714	75	42 402	672	129 979	6	10	8
West Virginia	53 959	118	34 825	75	8 931	96	10 204	13	21	14
Wisconsin	441 571	888	308 663	83	9 538	468	123 370	7	10	34
Wyoming	21 909	55	11 124	28	^{\$5} 796	47	^{\$4} 989	15	21	42

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

NUMBER OF CONSTRUCTION WORKERS: QUARTERLY PAY PERIOD

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS NOT REPORTING INVENTORIES

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH NO INVENTORIES

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY PERIOD

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

NUMBER OF PROPRIETORS AND WORKING PARTNERS

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **All other nonresidential buildings.** Includes nonresidential buildings that are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military non-building such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Floor Laying and Other Floor Contractors

1997

Issued September 1999

EC97C-2355B

1997 Economic Census

Construction

Industry Series



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U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
235520 175200	Floor laying & other floor contractors	12 078	60 533	1 672 303	6 675 721	6 042 611	3 455 155	2 727 249	75 917
	Floor laying & other floor work special trade contractors, n.e.c.	12 078	60 533	1 672 303	6 675 721	6 042 611	3 455 155	2 727 249	75 917

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers	
235520, FLOOR LAYING & OTHER FLOOR CONTRACTORS										
United States	12 078	60 533	42 663	40 272	41 674	45 413	43 293	1 672 303	1 029 921	1
Alabama	160	687	485	434	467	495	544	18 178	10 606	9
Alaska ^{*30}	73	41	41	41	39	43	39	2 362	830	17
Arizona	236	1 542	1 115	1 089	1 097	1 114	1 160	41 803	24 253	11
Arkansas	57	220	155	150	149	158	158	5 150	3 108	14
California	1 519	9 466	6 929	6 469	6 692	7 372	7 182	272 059	172 357	3
Colorado	281	2 060	1 417	1 453	1 409	1 397	1 409	61 685	40 335	8
Connecticut	166	910	668	525	676	786	684	26 516	18 774	10
Delaware	55	275	225	235	227	232	206	6 051	4 597	14
District of Columbia	8	97	71	63	71	77	75	2 895	1 601	1
Florida	509	1 969	1 150	1 082	1 103	1 278	1 137	52 272	27 953	7
Georgia	284	1 258	818	827	840	852	753	34 881	18 061	12
Hawaii [*]	62	349	246	241	248	257	240	11 092	7 238	6
Idaho	88	319	237	210	214	277	249	6 413	3 906	14
Illinois	576	3 430	2 460	2 092	2 420	2 735	2 593	108 841	75 092	4
Indiana	248	1 086	663	598	601	713	739	32 004	16 275	7
Iowa	133	505	382	334	375	425	397	11 860	7 176	10
Kansas	149	723	501	461	477	517	549	18 045	11 730	14
Kentucky	157	647	493	493	468	532	480	13 975	10 132	5
Louisiana	128	731	502	520	481	540	467	15 786	9 442	11
Maine	74	309	232	244	226	221	235	7 872	5 022	27
Maryland	301	2 081	1 344	1 278	1 295	1 439	1 364	58 255	29 324	6
Massachusetts	251	1 250	800	781	819	829	770	40 316	21 276	11
Michigan	413	1 669	1 107	1 033	1 082	1 159	1 162	48 929	28 045	8
Minnesota	263	1 355	1 016	881	953	1 120	1 110	38 919	26 889	12
Mississippi	81	243	190	195	160	217	188	7 609	6 677	7
Missouri	242	1 881	1 405	1 327	1 379	1 472	1 443	52 720	32 726	7
Montana	42	55	40	40	42	37	40	744	505	10
Nebraska	116	360	232	174	226	278	249	7 762	4 978	17
Nevada	82	1 147	978	998	974	975	967	27 075	20 233	21
New Hampshire	36	187	127	124	131	133	121	5 571	3 057	9
New Jersey	424	2 009	1 283	1 177	1 248	1 364	1 342	65 465	37 082	5
New Mexico	50	143	117	143	119	111	96	3 635	2 488	24
New York	720	3 465	2 300	2 085	2 289	2 507	2 318	97 189	51 078	6
North Carolina	444	1 943	1 552	1 514	1 514	1 635	1 543	47 283	33 974	11
North Dakota	34	71	56	47	45	66	66	1 352	410	9
Ohio	372	2 440	1 785	1 679	1 737	1 911	1 813	69 198	44 015	7
Oklahoma	83	336	246	238	247	245	255	6 948	4 578	19
Oregon	344	1 169	890	869	970	902	820	26 963	19 111	12
Pennsylvania	491	2 025	1 358	1 276	1 297	1 486	1 373	58 739	37 284	5
Rhode Island	48	128	98	82	105	119	86	2 890	2 236	28
South Carolina	227	579	459	459	452	498	426	10 383	8 346	18
South Dakota	8	56	41	36	36	52	40	1 117	927	7
Tennessee	165	680	501	503	508	547	447	16 254	11 031	11
Texas	442	2 764	1 719	1 850	1 680	1 702	1 646	75 460	37 928	7
Utah	99	311	228	226	209	242	234	7 235	5 401	15
Vermont	33	74	60	61	63	58	59	1 191	1 074	14
Virginia	390	2 057	1 358	1 238	1 323	1 508	1 363	55 353	29 187	10
Washington	486	1 698	1 222	1 141	1 196	1 262	1 438	43 428	29 352	8
West Virginia	67	210	180	164	176	198	182	3 290	2 617	11
Wisconsin	371	1 446	1 145	1 057	1 090	1 253	1 181	40 462	28 380	5
Wyoming	33	43	39	41	34	44	36	829	D	36

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
235520, FLOOR LAYING & OTHER FLOOR CONTRACTORS										
United States	6 675 721	6 042 611	3 455 155	2 727 249	633 111	95 018	75 917	649 222	1	4
Alabama	84 530	80 540	49 134	33 597	3 990	801	241	9 726	15	9
Alaska	12 235	11 384	7 021	4 363	851	120	80	1 687	13	Z
Arizona	153 946	128 042	66 402	67 109	²⁵ 905	2 223	S	14 772	13	S
Arkansas	19 211	18 475	12 304	6 734	736	203	741	3 386	17	39
California	1 071 113	962 402	540 212	441 030	108 711	20 779	12 620	90 030	3	9
Colorado	222 531	204 916	108 694	99 003	17 614	2 977	2 145	17 276	7	9
Connecticut	114 930	101 789	58 228	48 140	13 140	788	S	11 424	10	S
Delaware	21 718	20 733	13 411	D	985	225	S	2 013	13	S
District of Columbia	10 539	8 149	4 651	D	2 390	242	D	1 448	1	D
Florida	234 753	201 886	108 561	101 586	32 867	4 002	1 824	20 000	9	14
Georgia	181 019	153 825	81 002	80 822	27 194	2 444	1 970	S	12	13
Hawaii *	30 577	28 286	18 062	11 465	2 291	538	754	7 822	3	2
Idaho	24 272	21 763	13 191	D	² 509	508	82	2 088	12	17
Illinois	396 207	374 199	233 317	142 957	22 008	5 168	6 043	46 181	5	17
Indiana	135 338	121 558	67 669	55 948	13 780	1 336	1 357	13 277	4	11
Iowa	41 542	39 358	20 906	19 476	2 183	357	564	4 171	9	6
Kansas	63 727	57 194	30 756	26 940	⁶ 534	755	747	5 912	18	24
Kentucky	51 605	46 767	28 200	21 344	4 838	586	631	5 401	4	9
Louisiana	62 710	57 101	32 167	26 638	5 608	¹ 089	666	5 896	11	12
Maine	28 478	24 106	15 324	D	4 372	⁸ 83	244	2 781	14	7
Maryland	286 502	244 902	127 862	118 572	41 600	4 306	4 236	25 190	9	19
Massachusetts	185 095	162 619	106 405	57 476	22 476	959	² 224	13 307	12	52
Michigan	198 445	181 914	103 970	83 507	16 532	3 149	2 172	18 169	8	17
Minnesota	122 349	118 097	77 961	44 301	⁴ 252	² 241	2 803	²² 035	11	37
Mississippi	9 667	9 117	7 273	D	⁵ 50	² 21	⁹ 2	¹ 718	17	65
Missouri	172 514	165 392	104 432	66 786	S	2 137	1 877	13 552	4	2
Montana	⁴ 570	⁴ 570	² 552	² 019	—	S	25	190	52	24
Nebraska	38 553	34 372	14 335	21 615	4 181	538	405	4 779	13	22
Nevada	82 648	78 978	54 716	27 067	3 670	1 415	682	6 843	16	3
New Hampshire	32 099	27 086	16 266	10 820	5 013	S	80	1 251	17	32
New Jersey	249 311	230 034	138 189	95 697	19 277	3 839	1 996	19 919	5	18
New Mexico	20 718	17 868	8 908	8 960	² 850	129	S	1 614	24	S
New York	425 821	390 903	195 391	202 118	34 918	5 756	4 060	35 210	7	11
North Carolina	188 171	168 874	89 006	82 386	19 297	2 156	2 314	23 997	9	17
North Dakota	5 610	5 406	3 643	1 780	204	60	²⁷	503	7	43
Ohio	248 706	224 141	122 847	106 615	24 565	3 624	2 770	24 090	4	11
Oklahoma	23 995	21 436	10 773	11 124	2 559	152	⁸¹	2 478	15	41
Oregon	89 028	84 582	53 955	31 934	4 445	1 481	906	8 688	11	25
Pennsylvania	238 009	216 286	128 176	105 425	21 723	3 019	2 959	27 223	6	16
Rhode Island	14 203	13 659	8 148	D	⁵ 44	41	75	¹ 437	29	22
South Carolina	52 352	44 961	26 425	18 602	7 391	² 36	772	6 414	18	34
South Dakota	2 320	2 243	1 951	D	77	24	S	91	5	S
Tennessee	60 090	54 213	36 141	20 329	S	694	733	7 416	13	22
Texas	353 142	320 539	178 155	143 862	32 603	4 352	2 617	26 617	5	10
Utah	27 688	26 498	12 987	D	1 191	209	⁴ 85	4 259	19	45
Vermont	7 341	6 990	3 090	4 268	351	S	161	1 280	15	22
Virginia	235 702	208 500	117 076	95 299	27 202	3 243	2 768	27 252	9	20
Washington	178 758	160 799	101 588	62 992	17 960	2 442	1 801	14 992	7	16
West Virginia	¹⁸ 723	¹⁸ 406	5 999	D	³ 17	115	75	1 513	50	3
Wisconsin	139 877	134 101	85 877	50 619	5 776	1 942	2 315	21 793	5	21
Wyoming	2 736	2 655	¹ 844	811	⁸ 0	¹ 5	D	501	37	D

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
235520, FLOOR LAYING & OTHER FLOOR CONTRACTORS			235520, FLOOR LAYING & OTHER FLOOR CONTRACTORS—Con.		
Number of establishments in business during year	12 078	1	Selected costs	3 360 360	2
Number of proprietors and working partners	6 298	3	Cost of materials, components, and supplies	2 629 307	2
Total number of employees	60 533	1	Cost of construction work subcontracted out to others	633 111	4
Number of construction workers in March	40 272	2	Cost of selected power, fuels, and lubricants	97 942	2
Number of construction workers in May	41 674	2	Cost of electricity	33 037	2
Number of construction workers in August	45 413	2	Cost of natural gas and manufactured gas	5 169	3
Number of construction workers in November	43 293	2	Cost of gasoline and diesel fuel	57 722	3
Average number of construction workers	42 663	2	Cost of on-highway use of gasoline and diesel fuel	52 987	4
Number of other employees in March	18 948	2	Cost of off-highway use of gasoline and diesel fuel	4 735	6
Number of other employees in May	17 518	2	Cost of all other fuels and lubricants	2 014	9
Number of other employees in August	17 315	2	Rental cost for machinery, equipment, and buildings	95 018	5
Number of other employees in November	17 701	2	Rental cost for machinery and equipment	24 004	5
Average number of other employees	17 870	2	Rental cost for buildings	71 013	6
Payroll, all employees	1 672 303	1	Selected purchased services	97 679	2
Payroll, construction workers	1 029 921	1	Purchased communication services	51 560	3
Payroll, other employees	642 382	2	Cost of repairs to buildings and other structures	6 926	8
First-quarter payroll, all employees	368 472	1	Cost of repairs to machinery and equipment	39 193	4
Fringe benefits, all employees	340 670	1	Value of construction work	6 675 721	1
Legally required expenditures	221 021	2	Value of construction work on government owned projects ..	997 037	3
Voluntary expenditures	119 649	2	Value of construction work on federally owned projects ..	232 253	3
Value of business done	6 815 514	1	Value of construction work on state and locally owned projects	764 784	4
Value of construction work	6 675 721	1	Value of construction work on privately owned projects	5 678 684	2
Value of construction work subcontracted in from others ..	4 213 135	2	Beginning-of-year gross book value of depreciable assets	601 100	3
Other business receipts	139 793	9	Capital expenditures, other than land	75 917	4
Net value of construction	6 042 611	1	Retirements and disposition of depreciable assets	27 795	5
Value added	3 455 155	2	End-of-year gross book value of depreciable assets	649 222	3
			Depreciation charges during year	74 678	3
			Number of establishments with inventories	3 645	4
			Value of construction work for establishments with inventories ..	3 849 493	2
			End of 1997, inventories of materials and supplies	157 054	4
			End of 1996, inventories of materials and supplies	149 178	3
			Number of establishments with no inventories	4 052	4
			Value of construction work for establishments with no inventories	1 210 738	5
			Number of establishments not reporting inventories	4 381	4
			Value of construction work for establishments not reporting inventories	1 615 491	4

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235520, FLOOR LAYING & OTHER FLOOR CONTRACTORS											
Total	12 078	60 533	1 672 303	6 815 514	6 675 721	6 042 611	3 455 155	2 727 249	633 111	1	1
Establishments with 1 to 4 employees	8 823	14 548	285 291	1 384 366	1 339 951	1 205 973	780 931	469 457	133 978	3	4
Establishments with 5 to 9 employees	1 753	11 102	271 894	1 124 402	1 109 042	1 013 300	623 564	405 096	95 742	5	5
Establishments with 10 to 19 employees	933	12 219	337 717	1 424 101	1 403 140	1 240 167	691 908	569 220	162 973	5	5
Establishments with 20 to 49 employees	476	13 966	458 928	1 772 206	1 726 985	1 550 435	836 589	759 068	176 549	3	1
Establishments with 50 to 99 employees	70	4 913	184 819	622 966	611 075	580 636	272 303	320 224	30 439	Z	Z
Establishments with 100 to 249 employees	20	2 871	98 474	369 361	D	335 626	185 427	D	D	Z	Z
Establishments with 250 to 499 employees	3	915	35 180	118 112	D	116 474	64 433	D	D	Z	Z
Establishments with 500 to 999 employees	—	—	—	—	—	—	—	—	—	—	—
Establishments with 1,000 employees or more	—	—	—	—	—	—	—	—	—	—	—

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235520, FLOOR LAYING & OTHER FLOOR CONTRACTORS											
Total	12 078	60 533	1 672 303	6 815 514	6 675 721	6 042 611	3 455 155	2 727 249	633 111	1	1
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	2 429	3 103	47 136	177 728	174 288	166 136	120 896	S	S	8	7
Establishments with value of business done \$100,000 to \$249,999	3 513	8 696	154 112	554 322	541 265	511 727	358 554	166 230	29 538	6	5
Establishments with value of business done \$250,000 to \$499,999	1 585	7 027	147 299	561 666	552 341	502 489	331 465	180 349	49 852	7	7
Establishments with value of business done \$500,000 to \$999,999	1 298	8 981	220 789	909 827	883 979	806 018	483 491	348 375	77 961	6	7
Establishments with value of business done \$1,000,000 to \$2,499,999	858	11 981	354 003	1 332 366	1 310 619	1 192 273	690 439	523 581	118 347	4	5
Establishments with value of business done \$2,500,000 to \$4,999,999	324	7 829	261 453	1 136 900	1 102 923	966 384	544 823	455 538	136 539	3	5
Establishments with value of business done \$5,000,000 to \$9,999,999	145	5 925	239 590	1 003 564	975 947	875 838	433 539	469 916	100 110	1	3
Establishments with value of business done \$10,000,000 or more	63	5 707	233 582	1 085 680	1 083 516	974 267	456 496	519 935	109 249	Z	Z

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
235520, FLOOR LAYING & OTHER FLOOR CONTRACTORS								
Total	6 675 721	3 290 870	2 208 233	965 457	1	2	2	4
Building construction, total	6 393 086	3 249 546	2 190 334	953 207	1	2	2	4
Single-family houses, detached and attached	2 814 728	1 725 928	711 067	377 733	2	3	4	8
Single-family houses, detached	2 424 002	1 497 516	599 810	326 676	2	3	5	8
Single-family houses, attached	390 726	228 412	111 257	51 057	7	9	10	11
Apartment buildings, apartment type condominiums and cooperatives	448 926	175 128	146 175	127 623	5	6	6	11
Manufacturing and light industrial buildings	224 976	76 626	81 333	67 017	7	6	7	15
Manufacturing and light industrial warehouses	67 403	32 889	24 098	10 416	5	6	5	8
Hotels and motels	149 782	67 480	60 803	21 499	5	6	8	9
Office buildings	1 059 912	410 147	532 084	117 681	5	8	4	8
All other commercial buildings, nec	549 814	297 658	184 956	67 200	4	3	6	9
Commercial warehouses	50 039	24 830	13 805	11 404	6	9	7	12
Religious buildings	96 292	34 048	47 914	14 330	5	5	8	13
Educational buildings	438 932	181 184	187 997	69 751	5	7	3	14
Health care and institutional buildings	313 487	112 575	153 479	47 434	5	6	4	19
Amusement, social, and recreational buildings	89 745	57 434	18 759	13 552	11	11	12	24
All other nonresidential buildings	89 051	53 619	27 864	7 568	7	7	10	17
Nonbuilding construction, total	71 473	41 324	17 899	12 250	21	35	6	28
Other nonbuilding construction, nec	71 473	41 324	17 899	12 250	21	35	6	28
Construction work, nsk	211 162	X	X	X	9	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—			
				For all types	For specialized type				B	D	H	
												A
235520, FLOOR LAYING & OTHER FLOOR CONTRACTORS												
Total	12 078	60 533	1 672 303	6 675 721	X	6 042 611	3 455 155	633 111	1	1	4	
Establishments not specializing ..	2 038	16 724	511 605	2 027 245	X	1 843 245	1 021 124	184 000	3	3	7	
Establishments specializing 51 percent or more	10 040	43 809	1 160 698	4 648 476	3 973 050	4 199 366	2 434 031	449 111	2	2	4	
Single-family houses, detached and attached												
All establishments specializing	6 712	27 230	673 577	2 668 971	2 324 150	2 418 154	1 403 697	250 817	3	3	6	
Specialization 100 percent	3 034	9 720	220 519	909 462	909 462	836 460	499 972	73 003	5	6	9	
Specialization 90 to 99 percent ...	1 382	6 984	185 785	705 818	658 164	639 751	353 478	66 067	7	5	5	
Specialization 80 to 89 percent ...	817	3 938	99 422	397 476	326 873	349 492	189 375	47 984	9	8	21	
Specialization 70 to 79 percent ...	881	3 315	77 857	275 692	200 333	255 181	153 241	20 511	9	7	14	
Specialization 60 to 69 percent ...	431	2 297	64 452	268 299	167 722	237 405	145 477	30 894	9	8	20	
Specialization 51 to 59 percent ...	167	976	25 543	112 224	61 596	99 866	62 153	12 359	17	16	28	
Apartment buildings, apartment type condominiums and cooperatives												
All establishments specializing	381	2 011	58 848	239 374	187 362	205 481	110 583	33 893	11	10	16	
Specialization 100 percent	55	352	10 302	30 878	30 878	28 874	13 228	2 004	19	12	6	
Specialization 90 to 99 percent ...	⁵⁹ 59	³¹⁴ 314	6 521	24 174	22 420	22 119	12 953	² 055	41	30	48	
Specialization 80 to 89 percent ...	⁵³ 53	483	18 741	92 146	76 190	75 875	39 901	16 271	19	16	24	
Specialization 70 to 79 percent ...	S	237	6 570	22 509	16 822	19 461	14 860	³ 048	29	31	56	
Specialization 60 to 69 percent ...	90	483	13 510	55 029	33 432	45 978	22 794	9 051	21	30	38	
Specialization 51 to 59 percent ...	S	S	3 205	14 639	7 620	¹³ 174	⁶ 848	S	S	39	S	
Office buildings												
All establishments specializing	618	4 183	140 810	663 326	529 597	593 518	301 685	69 809	6	7	13	
Specialization 100 percent	122	938	28 686	156 524	156 524	137 494	64 163	¹⁹ 030	20	27	44	
Specialization 90 to 99 percent ...	48	593	20 893	74 042	68 660	66 960	24 039	5 082	13	5	3	
Specialization 80 to 89 percent ...	S	793	22 518	133 432	110 338	120 278	69 826	S	15	15	S	
Specialization 70 to 79 percent ...	120	658	23 518	120 840	87 349	106 376	61 601	14 464	16	11	8	
Specialization 60 to 69 percent ...	169	797	28 860	118 591	72 960	105 134	52 738	13 457	9	6	10	
Specialization 51 to 59 percent ...	10	403	16 333	59 898	33 766	55 275	29 318	4 623	5	2	1	
All other commercial buildings, nec												
All establishments specializing	339	2 374	66 127	259 723	223 389	238 354	150 093	21 369	8	5	13	
Specialization 100 percent	180	1 064	27 550	119 666	119 666	111 496	71 044	8 170	8	8	33	
Specialization 90 to 99 percent ...	18	D	D	D	D	D	D	D	D	D	D	
Specialization 80 to 89 percent ...	⁵² 52	249	9 620	37 358	31 033	34 197	19 693	3 160	20	11	16	
Specialization 70 to 79 percent ...	74	579	12 768	47 855	34 737	42 670	26 833	5 185	29	15	8	
Specialization 60 to 69 percent ...	14	292	12 449	39 095	24 317	35 082	22 716	4 013	15	8	1	
Specialization 51 to 59 percent ...	1	D	D	D	D	D	D	D	D	D	D	
Educational buildings												
All establishments specializing	156	1 597	54 823	197 086	142 751	179 108	94 421	17 978	10	9	18	
Specialization 100 percent	³¹ 31	¹⁶⁵ 165	¹⁰ 067	¹⁹ 902	¹⁹ 902	¹⁹ 572	⁹ 631	³³⁰ 330	62	56	46	
Specialization 90 to 99 percent ...	35	333	7 515	28 775	26 985	25 983	15 052	² 792	29	37	69	
Specialization 80 to 89 percent ...	10	113	4 008	18 537	15 296	D	7 239	D	15	15	D	
Specialization 70 to 79 percent ...	S	S	8 943	36 470	27 074	33 188	16 454	³ 282	S	15	54	
Specialization 60 to 69 percent ...	20	396	14 533	49 448	30 380	45 698	24 597	3 749	10	9	15	
Specialization 51 to 59 percent ...	11	236	9 757	43 955	23 116	D	21 448	D	8	5	D	
Health care and institutional buildings												
All establishments specializing	105	483	14 543	56 951	45 023	48 878	27 596	8 073	25	22	34	
Specialization 100 percent	9	130	3 683	12 230	12 230	12 179	⁷ 418	⁵¹ 51	34	36	48	
Specialization 80 to 89 percent ...	³ 3	³⁹ 39	1 910	9 701	7 761	8 123	3 343	1 578	53	26	6	
Specialization 70 to 79 percent ...	⁴⁹ 49	¹⁹⁹ 199	6 448	²⁶ 214	¹⁹ 349	20 366	¹² 139	⁵ 848	49	40	46	
Specialization 60 to 69 percent ...	S	¹¹⁵ 115	2 502	⁸ 806	⁵ 683	⁸ 210	4 696	596	41	54	37	

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
235520, FLOOR LAYING & OTHER FLOOR CONTRACTORS		
Total	6 815 514	1
Special trade contractors, total	6 402 202	2
Acoustical contractor	53 797	6
Carpentry contractor	26 599	9
Carpet laying or removal contractor	2 989 232	2
Computer flooring installation contractor	198 309	7
Flooring contractor, wood	1 693 284	3
Resilient floor laying contractor	1 082 958	3
Tile contractor	358 023	4
Other construction activities, nec	133 765	5
Other business activities secondary to construction activities, total	116 402	11
Other business activities, secondary to construction activities, nec	10 955	23
Retail trade, secondary to construction activities	79 932	10
Wholesale trade, secondary to construction activities	25 515	31
Kind of business activity, nsk	163 146	9

Table 10. Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
235520, FLOOR LAYING & OTHER FLOOR CONTRACTORS											
Total	12 078	60 533	1 672 303	6 675 721	X	6 042 611	3 455 155	633 111	1	1	4
Establishments not specializing	1 347	12 828	390 069	1 537 211	X	1 376 611	758 955	160 599	3	3	6
Establishments specializing 51 percent or more	10 731	47 705	1 282 233	5 138 511	4 439 390	4 665 999	2 696 200	472 511	2	2	4
Carpet laying or removal contractor											
All establishments specializing	4 847	24 469	694 449	2 892 749	2 340 960	2 571 525	1 448 631	321 224	3	3	6
Specialization 100 percent	2 705	9 936	229 941	939 526	939 526	840 002	544 798	99 524	5	5	9
Specialization 90 to 99 percent	421	2 098	58 255	259 589	241 939	226 058	104 460	33 530	11	9	13
Specialization 80 to 89 percent	529	3 389	101 809	430 971	353 204	384 703	233 928	46 268	8	9	20
Specialization 70 to 79 percent	689	3 304	96 280	409 241	297 421	365 849	190 024	43 392	9	9	23
Specialization 60 to 69 percent	402	3 995	143 217	585 712	362 878	525 629	265 975	60 083	6	9	16
Specialization 51 to 59 percent	101	1 748	64 948	267 710	145 992	229 283	109 446	38 427	4	5	9
Computer flooring installation contractor											
All establishments specializing	214	1 110	43 357	177 262	165 632	160 982	86 954	16 280	15	7	3
Specialization 100 percent	177	769	30 093	119 051	119 051	107 166	61 158	11 885	22	11	4
Specialization 90 to 99 percent	^s 11	128	D	18 120	17 104	D	13 413	D	21	5	D
Specialization 80 to 89 percent	S	D	1 409	D	12 006	D	D	D	D	D	D
Specialization 70 to 79 percent	4	89	4 390	13 185	D	12 823	5 584	362	Z	Z	Z
Specialization 60 to 69 percent	1	D	D	D	D	D	D	D	D	D	D
Flooring contractor, wood											
All establishments specializing	3 527	16 102	385 047	1 471 399	1 407 879	1 376 471	799 089	94 928	4	4	7
Specialization 100 percent	3 083	12 880	296 088	1 127 279	1 127 279	1 071 191	632 818	56 088	5	4	10
Specialization 90 to 99 percent	139	1 408	34 151	144 484	136 587	129 178	67 350	15 306	16	14	21
Specialization 80 to 89 percent	93	663	22 064	77 726	64 376	68 185	36 089	9 542	12	14	20
Specialization 70 to 79 percent	64	465	13 408	59 652	43 027	48 661	22 644	10 991	17	14	20
Specialization 60 to 69 percent	^s 80	382	11 083	38 988	24 348	37 023	23 603	1 965	12	10	5
Specialization 51 to 59 percent	69	304	8 254	23 270	12 262	22 233	16 584	1 037	23	20	15
Resilient floor laying contractor											
All establishments specializing	1 056	4 395	123 029	457 092	384 910	429 257	269 035	27 834	7	7	17
Specialization 100 percent	572	2 137	54 600	204 811	204 811	193 089	132 987	11 722	12	12	22
Specialization 90 to 99 percent	87	380	12 846	40 902	38 779	39 283	21 399	1 619	9	6	12
Specialization 80 to 89 percent	30	369	11 384	36 464	30 183	35 301	19 243	^s 1 163	14	14	49
Specialization 70 to 79 percent	205	S	11 811	57 156	41 681	52 536	38 223	^s 4 620	S	27	69
Specialization 60 to 69 percent	98	544	20 115	63 460	39 474	59 292	25 537	^s 4 167	11	7	42
Specialization 51 to 59 percent	64	409	12 273	54 299	29 980	49 756	31 646	4 543	23	23	37

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Value of construction work	Value of construction work	Value of construction work	Value of construction work	Value of construction work	A	C	E	
	A	B	C	D	E	F	G			
235520, FLOOR LAYING & OTHER FLOOR CONTRACTORS										
United States	6 675 721	6 633	4 442 682	2 811	452 234	5 428	1 780 805	1	2	9
Alabama	66 755	71	49 326	26	2 722	89	14 706	18	26	18
Alaska	13 850	^{§20}	6 902	22	1 615	10	5 333	11	23	24
Arizona	150 823	62	74 261	34	2 196	174	74 365	17	18	28
Arkansas	17 068	^{§35}	5 485	^{§46}	4 395	20	8 188	14	42	36
California	1 061 116	914	800 356	42	5 541	604	255 219	3	3	18
Colorado	225 239	185	163 714	45	4 478	92	57 047	7	8	33
Connecticut	113 145	60	85 325	98	7 403	105	20 418	9	12	11
Delaware	23 161	36	16 165	62	3 070	19	3 925	12	19	12
District of Columbia	^{§62} 683	5	5 384	141	^{§56} 788	3	512	46	Z	51
Florida	245 236	238	170 888	107	14 215	272	60 133	9	13	7
Georgia	170 124	136	90 122	67	14 880	149	65 122	11	15	17
Hawaii *	33 608	49	27 095	5	^{§3} 032	13	3 482	8	7	66
Idaho	24 532	^{§38}	18 250	^{§14}	^{§1} 242	^{§51}	5 041	17	25	49
Illinois	392 219	361	278 637	124	11 291	216	102 290	4	6	14
Indiana	134 147	172	97 576	111	8 966	76	27 605	4	4	21
Iowa	48 673	86	34 280	49	^{§7} 777	47	6 616	12	11	57
Kansas	68 898	82	47 062	57	12 590	67	9 247	21	31	13
Kentucky	52 577	99	31 675	89	8 910	58	11 992	4	9	15
Louisiana	65 598	99	54 791	24	3 190	29	7 617	11	13	15
Maine	22 289	52	15 032	5	1 603	22	5 654	8	11	Z
Maryland	201 523	195	138 783	93	12 401	106	50 339	6	6	13
Massachusetts	190 030	142	122 641	75	23 097	110	44 291	10	16	21
Michigan	206 591	167	130 246	70	9 382	246	66 962	8	12	9
Minnesota	120 642	185	94 687	^{§34}	1 578	69	24 377	10	13	18
Mississippi	8 404	47	^{§2} 614	38	1 785	34	4 005	18	52	18
Missouri	171 234	146	120 544	75	12 410	96	38 281	4	6	12
Montana	^{§4} 925	42	^{§4} 534	^{§12}	^{§392}	—	—	48	52	65
Nebraska	37 778	56	34 743	15	1 548	60	1 487	14	15	21
Nevada	98 686	57	55 051	54	16 420	25	27 215	14	25	4
New Hampshire	30 503	11	19 102	77	7 699	^{§25}	^{§3} 702	20	32	25
New Jersey	231 243	163	102 276	153	17 625	262	111 341	5	13	21
New Mexico	21 647	^{§37}	15 970	^{§45}	^{§1} 544	13	4 133	26	36	44
New York	446 366	362	280 453	70	41 579	358	124 333	7	13	2
North Carolina	188 733	142	116 729	62	8 979	302	63 025	9	13	14
North Dakota	5 801	24	2 455	^{§1}	D	10	D	8	7	D
Ohio	230 309	205	162 937	68	8 330	167	59 042	4	5	5
Oklahoma	21 180	58	14 830	25	1 813	26	4 538	18	29	17
Oregon	98 666	178	47 135	20	11 090	166	40 441	10	15	13
Pennsylvania	241 182	211	162 037	100	10 143	280	69 001	5	8	7
Rhode Island	15 359	^{§12}	5 611	15	2 504	^{§36}	^{§7} 245	26	23	2
South Carolina	55 788	155	36 764	65	7 150	71	^{§11} 875	18	26	18
South Dakota	3 215	4	1 479	^{§7}	1 197	4	539	13	6	34
Tennessee	73 479	85	37 077	75	13 965	80	22 437	12	20	31
Texas	355 344	221	264 391	42	^{§10} 039	221	80 913	5	7	54
Utah	27 532	97	D	21	D	2	D	21	D	D
Vermont	6 700	32	D	3	D	^{§2}	D	9	D	D
Virginia	243 357	218	137 940	159	32 220	172	73 197	8	10	20
Washington	179 902	313	128 477	42	9 267	172	42 158	7	10	5
West Virginia	^{§22} 311	^{§30}	^{§15} 786	40	3 833	^{§37}	2 692	41	63	10
Wisconsin	141 786	206	82 471	74	4 485	165	54 830	5	9	20
Wyoming	3 765	^{§33}	2 640	10	1 125	—	—	24	34	3

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **All other nonresidential buildings.** Includes nonresidential buildings that are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military non-building such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Roofing, Siding, and Sheet Metal Contractors

1997

Issued October 1999

EC97C-2356A

1997 Economic Census

Construction

Industry Series



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division	301-457-4673
Service Sector Statistics Division	301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
235610	Roofing, siding, & sheet metal contractors . . .	30 557	253 315	6 494 890	23 967 096	21 976 038	13 220 789	8 941 505	417 129
176100	Roofing, siding, & sheet metal work special trade contractors	30 557	253 315	6 494 890	23 967 096	21 976 038	13 220 789	8 941 505	417 129

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—	
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers		
											A
235610, ROOFING, SIDING, & SHEET METAL CONTRACTORS											
United States	30 557	253 315	197 294	180 620	198 105	210 731	199 719	6 494 890	4 369 788	1	
Alabama	426	3 737	3 004	2 723	2 927	3 217	3 150	77 808	56 364	14	
Alaska	67	387	316	² 258	297	380	331	15 776	¹ 12 571	27	
Arizona	406	4 836	3 963	4 097	3 973	4 030	3 754	112 914	81 589	7	
Arkansas	204	1 661	1 403	1 379	1 462	1 385	1 385	31 319	23 145	22	
California	3 033	27 560	22 279	21 044	20 523	23 298	24 252	714 487	503 708	3	
Colorado	596	5 591	4 085	3 763	4 149	4 335	4 092	144 692	90 982	6	
Connecticut	421	2 688	1 851	1 493	1 986	2 020	1 906	97 918	56 921	9	
Delaware	81	716	521	510	505	525	545	21 864	12 689	9	
District of Columbia	¹ 16	44	36	36	46	30	30	1 013	⁶ 686	22	
Florida	1 944	16 766	12 464	12 316	12 688	12 579	12 270	392 397	244 279	4	
Georgia	734	5 938	4 779	4 751	4 734	4 775	4 854	161 671	105 611	5	
Hawaii *	128	1 119	806	781	772	830	840	32 613	20 317	15	
Idaho	171	1 048	859	715	833	938	950	24 079	17 616	13	
Illinois	1 388	12 816	9 273	7 800	9 861	10 222	9 209	399 763	264 014	3	
Indiana	786	7 367	5 676	5 284	5 696	6 163	5 562	180 919	122 469	5	
Iowa	408	3 132	2 440	2 156	2 594	2 759	2 251	84 753	58 323	7	
Kansas	382	2 931	2 331	1 936	2 458	2 717	2 212	68 638	48 401	7	
Kentucky	440	4 155	3 400	3 257	3 509	3 523	3 310	89 682	64 242	9	
Louisiana	450	3 460	2 594	2 437	2 448	2 753	2 740	75 827	49 973	8	
Maine	67	1 072	821	704	819	876	886	26 841	18 210	3	
Maryland	501	5 631	4 520	4 333	4 613	4 540	4 597	163 984	112 125	7	
Massachusetts	566	3 817	2 825	2 260	2 786	3 114	3 142	116 954	72 498	9	
Michigan	1 019	8 078	6 432	5 446	6 384	7 308	6 592	246 147	170 689	4	
Minnesota	566	5 193	3 870	3 005	3 902	4 583	3 992	139 948	88 087	6	
Mississippi	245	2 446	1 940	1 853	1 931	1 884	2 093	41 114	26 685	9	
Missouri	887	5 886	4 686	4 307	4 884	5 114	4 439	158 665	106 336	6	
Montana	126	672	498	332	450	677	533	13 201	8 655	13	
Nebraska	189	1 585	1 144	925	1 227	1 325	1 098	41 474	23 776	11	
Nevada	110	2 373	2 010	1 931	1 851	2 027	2 234	53 866	41 748	14	
New Hampshire	107	807	540	389	565	649	557	23 738	12 924	17	
New Jersey	970	6 323	4 535	3 982	4 773	4 848	4 536	212 020	137 581	5	
New Mexico	150	961	791	793	763	872	735	18 656	13 249	14	
New York	1 509	10 888	8 304	6 908	8 526	9 292	8 489	280 827	193 062	4	
North Carolina	1 130	8 389	6 666	6 911	6 763	6 649	6 342	186 627	124 304	6	
North Dakota	101	1 063	805	663	920	948	687	21 661	14 553	5	
Ohio	1 614	12 827	10 314	8 726	10 602	11 664	10 265	317 687	221 496	4	
Oklahoma	284	2 397	1 833	2 150	1 994	1 579	1 608	45 104	31 781	8	
Oregon	640	4 728	3 763	3 048	3 768	4 488	3 749	116 377	80 430	8	
Pennsylvania	1 497	12 245	9 561	8 278	9 809	10 423	9 736	355 121	248 567	3	
Rhode Island	129	769	616	539	622	695	607	20 563	14 790	10	
South Carolina	472	3 686	2 878	2 695	2 859	3 033	2 927	72 124	48 315	14	
South Dakota	71	747	611	477	571	684	715	13 498	9 546	15	
Tennessee	564	4 996	4 044	3 920	4 036	4 200	4 022	112 219	75 922	6	
Texas	1 593	13 697	10 066	9 824	10 210	10 305	9 923	321 999	186 528	5	
Utah	337	2 770	2 353	2 408	2 433	2 451	2 122	62 731	48 074	11	
Vermont	110	594	459	352	444	560	480	13 730	10 390	11	
Virginia	922	9 225	7 562	7 420	7 419	7 659	7 751	217 162	151 483	6	
Washington	957	6 381	4 970	4 383	4 784	5 349	5 366	167 967	109 656	5	
West Virginia	193	1 314	1 108	991	1 093	1 144	1 204	30 298	23 134	8	
Wisconsin	776	5 330	4 285	3 569	4 449	4 883	4 237	144 483	103 769	6	
Wyoming	76	475	401	363	398	430	412	9 966	7 524	14	

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
235610, ROOFING, SIDING, & SHEET METAL CONTRACTORS										
United States	23 967 096	21 976 038	13 220 789	8 941 505	1 991 057	335 273	417 129	3 127 915	1	2
Alabama	310 223	274 198	163 537	111 507	36 025	4 601	8 959	49 826	14	31
Alaska	61 820	60 375	36 524	24 031	1 445	423	^S 2 386	S	30	65
Arizona	366 167	357 262	199 859	163 818	8 905	5 264	6 831	40 880	6	12
Arkansas	109 595	103 625	65 772	42 274	5 970	1 257	2 265	20 384	19	21
California	2 734 800	2 587 805	1 503 435	1 109 097	146 995	43 827	39 871	282 134	3	6
Colorado	568 358	522 114	303 399	221 819	46 245	7 927	7 272	74 458	9	11
Connecticut	351 924	297 181	194 286	105 971	54 743	5 744	4 909	44 032	7	10
Delaware	79 050	73 459	46 749	26 710	5 591	2 039	970	9 596	3	12
District of Columbia	D	D	1 354	D	60	^S 22	^S 64	475	D	67
Florida	1 471 864	1 379 599	856 300	526 711	92 265	23 556	22 242	177 206	4	8
Georgia	546 995	490 135	299 312	193 027	56 860	5 865	10 876	83 947	6	20
Hawaii *	140 447	130 349	94 395	35 955	^S 10 098	1 834	1 503	23 190	17	31
Idaho	97 315	89 951	39 655	D	^S 7 364	1 254	2 512	12 836	15	21
Illinois	1 427 896	1 252 809	800 107	460 889	175 087	19 312	21 137	160 643	3	5
Indiana	648 999	609 044	372 492	240 547	39 955	7 353	12 080	82 211	5	15
Iowa	283 672	266 069	160 103	107 836	17 602	5 043	4 556	41 671	6	10
Kansas	242 580	231 355	142 965	91 364	11 225	3 439	6 127	45 521	7	22
Kentucky	333 597	308 749	183 286	125 463	24 848	3 665	5 754	45 889	8	15
Louisiana	285 047	256 805	134 773	123 815	28 242	4 281	4 518	43 343	9	17
Maine	92 888	89 521	54 047	36 866	3 367	1 528	2 624	28 063	3	11
Maryland	542 025	483 130	277 225	215 763	58 895	8 211	10 499	89 307	10	11
Massachusetts	466 301	427 834	258 765	172 463	38 467	9 042	4 679	39 782	9	9
Michigan	923 253	825 716	513 531	317 996	97 536	8 901	15 545	119 955	4	7
Minnesota	574 484	517 062	286 408	243 832	57 422	6 470	14 432	77 751	6	12
Mississippi	153 663	144 944	77 353	67 955	^S 8 718	1 616	5 919	33 484	8	38
Missouri	519 384	480 729	310 414	172 675	38 655	5 301	8 743	77 913	5	11
Montana	51 131	49 026	33 911	15 114	2 105	^S 1 325	1 375	7 694	15	23
Nebraska	174 762	153 373	91 472	62 267	^S 21 389	1 636	^S 6 671	24 780	15	51
Nevada	181 879	178 055	112 089	65 966	3 825	1 506	2 777	15 459	7	15
New Hampshire	80 992	77 467	48 079	30 148	3 525	1 342	1 444	13 216	16	14
New Jersey	797 322	677 902	399 054	284 353	119 419	7 709	9 438	75 010	7	14
New Mexico	64 093	63 011	38 197	24 995	1 082	542	864	11 311	10	10
New York	1 059 195	965 537	588 945	385 569	93 658	15 973	16 152	131 135	4	8
North Carolina	722 112	649 450	357 663	292 865	72 663	9 747	9 835	81 883	7	9
North Dakota	73 775	69 294	43 724	29 868	4 481	761	3 512	12 774	5	10
Ohio	1 162 241	1 067 866	642 878	437 634	94 375	15 733	18 206	150 770	4	9
Oklahoma	195 863	180 003	102 583	77 420	15 860	3 919	2 937	37 162	7	15
Oregon	398 589	371 469	226 108	148 668	27 120	6 566	6 988	49 309	5	18
Pennsylvania	1 269 740	1 190 593	746 100	453 617	79 147	19 380	28 297	167 995	3	6
Rhode Island	70 188	67 356	44 426	22 930	2 832	979	1 252	9 896	9	27
South Carolina	284 392	251 898	152 218	99 679	32 494	4 880	3 795	32 624	12	22
South Dakota	52 234	49 553	28 718	20 835	2 681	986	2 603	12 370	12	28
Tennessee	409 984	376 930	231 193	148 108	33 054	6 011	^S 9 015	58 259	6	43
Texas	1 338 362	1 160 472	676 962	488 980	177 890	16 102	24 467	195 642	5	13
Utah	229 546	220 234	115 708	104 633	9 311	1 959	3 243	24 905	10	21
Vermont	44 724	43 669	23 707	20 913	1 055	759	^S 1 683	10 221	15	40
Virginia	731 203	667 027	410 085	260 904	64 176	10 385	9 805	95 241	6	9
Washington	597 900	566 610	336 752	241 161	31 290	9 406	12 468	71 202	6	12
West Virginia	126 122	120 247	83 927	37 464	5 875	934	2 134	16 601	6	25
Wisconsin	474 057	456 235	287 993	178 516	17 822	8 119	9 760	89 681	5	8
Wyoming	D	D	22 253	D	1 343	840	1 135	5 854	D	14

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
235610, ROOFING, SIDING, & SHEET METAL CONTRACTORS			235610, ROOFING, SIDING, & SHEET METAL CONTRACTORS—Con.		
Number of establishments in business during year	30 557	1	Selected costs	10 932 562	1
Number of proprietors and working partners	11 971	3	Cost of materials, components, and supplies	8 589 147	1
Total number of employees	253 315	1	Cost of construction work subcontracted out to others	1 991 057	3
Number of construction workers in March	180 620	1	Cost of selected power, fuels, and lubricants	352 358	1
Number of construction workers in May	198 105	1	Cost of electricity	54 045	3
Number of construction workers in August	210 731	1	Cost of natural gas and manufactured gas	30 511	4
Number of construction workers in November	199 719	1	Cost of gasoline and diesel fuel	253 753	2
Average number of construction workers	197 294	1	Cost of on-highway use of gasoline and diesel fuel	230 636	2
Number of other employees in March	55 455	2	Cost of off-highway use of gasoline and diesel fuel	23 117	4
Number of other employees in May	55 819	1	Cost of all other fuels and lubricants	14 049	9
Number of other employees in August	56 886	2	Rental cost for machinery, equipment, and buildings	335 273	2
Number of other employees in November	55 924	2	Rental cost for machinery and equipment	163 491	3
Average number of other employees	56 021	1	Rental cost for buildings	171 782	2
Payroll, all employees	6 494 890	1	Selected purchased services	449 717	2
Payroll, construction workers	4 369 788	1	Purchased communication services	193 506	2
Payroll, other employees	2 125 102	1	Cost of repairs to buildings and other structures	34 312	6
First-quarter payroll, all employees	1 374 101	1	Cost of repairs to machinery and equipment	221 900	2
Fringe benefits, all employees	1 650 512	1	Value of construction work	23 967 096	1
Legally required expenditures	1 140 754	1	Value of construction work on government owned projects ..	4 027 092	2
Voluntary expenditures	509 758	1	Value of construction work on federally owned projects ..	1 035 583	4
Value of business done	24 153 350	1	Value of construction work on state and locally owned projects	2 991 509	3
Value of construction work	23 967 096	1	Value of construction work on privately owned projects	19 940 004	1
Value of construction work subcontracted in from others ..	9 937 492	2	Beginning-of-year gross book value of depreciable assets	2 812 216	2
Other business receipts	186 256	6	Capital expenditures, other than land	417 129	2
Net value of construction	21 976 038	1	Retirements and disposition of depreciable assets	101 430	6
Value added	13 220 789	1	End-of-year gross book value of depreciable assets	3 127 915	2
			Depreciation charges during year	373 501	2
			Number of establishments with inventories	9 551	3
			Value of construction work for establishments with inventories ..	14 124 007	1
			End of 1997, inventories of materials and supplies	357 004	4
			End of 1996, inventories of materials and supplies	363 144	4
			Number of establishments with no inventories	10 884	3
			Value of construction work for establishments with no inventories	5 676 492	3
			Number of establishments not reporting inventories	10 123	3
			Value of construction work for establishments not reporting inventories	4 166 597	4

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235610, ROOFING, SIDING, & SHEET METAL CONTRACTORS											
Total	30 557	253 315	6 494 890	24 153 350	23 967 096	21 976 038	13 220 789	8 941 505	1 991 057	1	1
Establishments with 1 to 4 employees	18 037	33 347	606 715	3 356 849	3 341 655	2 938 815	1 706 143	1 247 867	402 839	2	3
Establishments with 5 to 9 employees	6 159	39 747	799 529	3 334 773	3 318 207	3 002 420	1 815 448	1 203 537	315 788	4	4
Establishments with 10 to 19 employees	3 449	46 709	1 129 055	4 091 205	4 063 538	3 748 489	2 268 315	1 507 841	315 049	4	4
Establishments with 20 to 49 employees	2 159	64 178	1 800 301	6 298 844	6 240 866	5 799 266	3 487 669	2 369 576	441 599	3	2
Establishments with 50 to 99 employees	581	39 031	1 177 721	3 835 775	3 795 269	3 553 393	2 065 930	1 527 969	241 876	3	1
Establishments with 100 to 249 employees	151	21 365	674 164	2 240 827	2 215 731	2 040 251	1 256 270	809 077	175 480	Z	Z
Establishments with 250 to 499 employees	19	D	D	D	D	D	D	D	D	D	D
Establishments with 500 to 999 employees	—	—	—	—	—	—	—	—	—	—	—
Establishments with 1,000 employees or more	2	D	D	D	D	D	D	D	D	D	D

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235610, ROOFING, SIDING, & SHEET METAL CONTRACTORS											
Total	30 557	253 315	6 494 890	24 153 350	23 967 096	21 976 038	13 220 789	8 941 505	1 991 057	1	1
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	4 001	7 025	72 835	299 201	297 522	282 245	175 607	108 317	15 277	8	6
Establishments with value of business done \$100,000 to \$249,999	7 882	21 793	315 915	1 288 044	1 282 898	1 212 877	740 942	477 081	70 020	5	4
Establishments with value of business done \$250,000 to \$499,999	5 624	27 718	499 709	1 934 738	1 929 582	1 813 417	1 068 363	750 209	116 166	5	4
Establishments with value of business done \$500,000 to \$999,999	4 002	34 140	710 823	2 790 113	2 772 077	2 524 513	1 563 155	979 395	247 563	5	4
Establishments with value of business done \$1,000,000 to \$2,499,999	3 264	52 330	1 376 028	5 111 078	5 078 105	4 646 947	2 768 273	1 911 647	431 158	4	4
Establishments with value of business done \$2,500,000 to \$4,999,999	1 343	42 453	1 272 638	4 667 262	4 624 138	4 225 459	2 564 197	1 704 385	398 679	3	4
Establishments with value of business done \$5,000,000 to \$9,999,999	567	32 815	1 071 225	3 839 808	3 801 360	3 485 722	1 980 111	1 544 059	315 638	2	2
Establishments with value of business done \$10,000,000 or more	226	32 350	1 149 793	4 124 148	4 082 869	3 693 910	2 302 665	1 432 524	388 959	Z	Z

Table 7. **Value of Construction Work for Establishments With Payroll by Type of Construction: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
235610, ROOFING, SIDING, & SHEET METAL CONTRACTORS								
Total	23 967 096	8 652 871	9 244 494	5 704 792	1	2	2	2
Building construction, total	23 383 309	8 589 810	9 149 900	5 643 599	1	2	2	2
Single-family houses, detached and attached	8 371 781	3 090 564	3 243 047	2 038 170	2	4	3	4
Single-family houses, detached	6 956 063	2 555 856	2 714 261	1 685 947	2	4	4	5
Single-family houses, attached	1 415 718	534 709	528 786	352 223	6	12	8	7
Apartment buildings, apartment type condominiums and cooperatives	1 348 161	359 230	603 522	385 409	6	6	12	7
Manufacturing and light industrial buildings	2 991 690	945 050	1 247 342	799 298	3	5	3	5
Manufacturing and light industrial warehouses	1 029 754	388 123	380 785	260 846	3	5	3	7
Hotels and motels	411 764	203 279	118 629	89 856	7	13	7	6
Office buildings	1 898 463	797 120	673 792	427 551	2	3	3	4
All other commercial buildings, nec	2 264 477	978 552	717 463	568 463	4	5	4	6
Commercial warehouses	1 024 616	363 742	439 844	221 030	5	5	6	7
Religious buildings	485 256	126 805	207 850	150 601	3	5	4	6
Educational buildings	2 077 995	723 200	942 745	412 050	3	4	4	6
Health care and institutional buildings	710 831	279 968	299 503	131 361	3	4	5	8
Public safety buildings	335 832	146 021	125 456	64 355	4	4	5	9
All other nonresidential buildings	432 688	188 156	149 923	94 610	4	6	6	5
Nonbuilding construction, total	218 848	63 061	94 594	61 193	11	9	23	14
Other nonbuilding construction, nec	218 848	63 061	94 594	61 193	11	9	23	14
Construction work, nsk	364 939	X	X	X	13	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
235610, ROOFING, SIDING, & SHEET METAL CONTRACTORS											
Total	30 557	253 315	6 494 890	23 967 096	X	21 976 038	13 220 789	1 991 057	1	1	3
Establishments not specializing ..	7 257	103 816	2 935 434	10 108 110	X	9 443 679	5 719 509	664 431	2	2	4
Establishments specializing 51 percent or more	23 301	149 499	3 559 456	13 858 986	11 710 936	12 532 361	7 501 281	1 326 625	2	2	5
Single-family houses, detached and attached											
All establishments specializing	17 861	87 352	1 827 300	7 669 715	6 726 424	6 862 402	4 059 628	807 313	2	3	6
Specialization 100 percent	8 545	32 159	666 829	2 960 933	2 960 933	2 603 808	1 565 830	357 125	4	4	8
Specialization 90 to 99 percent ...	3 147	18 358	389 490	1 574 690	1 479 506	1 408 021	832 698	166 668	6	6	13
Specialization 80 to 89 percent ...	2 188	13 047	290 295	1 193 939	985 470	1 093 627	652 869	100 312	6	8	17
Specialization 70 to 79 percent ...	2 210	12 735	248 815	1 011 971	745 766	936 252	554 508	75 719	8	9	21
Specialization 60 to 69 percent ...	1 379	7 829	159 817	686 650	423 310	594 992	325 389	91 658	10	12	23
Specialization 51 to 59 percent ...	392	3 223	72 053	241 532	131 440	225 702	128 334	15 830	15	14	24
Apartment buildings, apartment type condominiums and cooperatives											
All establishments specializing	830	4 722	105 220	511 337	438 544	404 405	237 632	106 932	12	16	31
Specialization 100 percent	245	1 712	45 111	207 620	207 620	158 926	87 731	\$48 694	21	32	62
Specialization 90 to 99 percent ...	164	704	12 456	85 181	80 472	66 491	48 610	18 691	24	28	31
Specialization 80 to 89 percent ...	81	523	10 073	\$57 947	\$47 196	42 805	23 541	\$15 142	29	41	55
Specialization 70 to 79 percent ...	S	772	14 971	58 044	43 476	53 444	34 064	\$4 600	29	27	43
Specialization 60 to 69 percent ...	79	694	15 742	56 577	35 718	49 948	26 836	\$6 629	35	34	73
Specialization 51 to 59 percent ...	79	315	6 867	\$45 966	\$24 063	32 790	16 850	\$13 176	23	44	67
Manufacturing and light industrial buildings											
All establishments specializing	1 301	20 301	618 988	2 031 973	1 626 787	1 899 048	1 209 811	132 925	5	4	5
Specialization 100 percent	451	5 087	151 418	518 144	518 144	476 048	295 156	42 096	11	11	15
Specialization 90 to 99 percent ...	158	2 390	69 465	235 761	223 215	214 377	138 671	21 384	14	13	7
Specialization 80 to 89 percent ...	248	3 768	107 293	314 497	258 864	301 201	210 720	13 296	12	10	13
Specialization 70 to 79 percent ...	148	3 509	118 747	370 082	268 123	347 147	221 365	22 935	8	9	3
Specialization 60 to 69 percent ...	186	3 697	113 892	419 151	262 588	391 052	233 209	28 100	8	8	5
Specialization 51 to 59 percent ...	109	1 851	58 171	174 337	95 853	169 223	110 690	5 114	16	15	25
Manufacturing and light industrial warehouses											
All establishments specializing	214	2 206	64 389	224 802	171 898	220 668	128 074	4 134	15	15	16
Specialization 100 percent	97	599	17 049	71 424	71 424	71 082	45 120	342	31	35	9
Specialization 90 to 99 percent ...	S	S	S	S	S	D	D	D	D	S	D
Specialization 80 to 89 percent ...	3	104	3 590	8 077	6 462	D	D	D	D	Z	D
Specialization 70 to 79 percent ...	\$37	357	11 870	36 853	27 055	36 123	22 166	731	29	34	9
Specialization 60 to 69 percent ...	\$42	817	22 435	80 830	49 614	79 522	39 956	1 309	25	21	28
Specialization 51 to 59 percent ...	S	\$225	\$7 149	20 733	11 105	19 386	\$11 308	1 347	53	30	39
Office buildings											
All establishments specializing	264	5 286	175 479	550 536	393 484	498 409	343 396	52 127	7	6	15
Specialization 100 percent	S	329	13 840	48 902	48 902	39 855	28 502	9 047	14	12	17
Specialization 90 to 99 percent ...	\$26	666	22 558	65 976	60 615	60 740	42 937	5 236	12	12	36
Specialization 80 to 89 percent ...	S	635	15 138	44 244	35 446	42 772	28 231	1 472	31	20	24
Specialization 70 to 79 percent ...	32	1 110	40 967	120 111	86 775	106 222	77 398	13 888	11	8	3
Specialization 60 to 69 percent ...	41	1 974	63 966	220 657	134 152	200 171	132 905	20 486	12	14	35
Specialization 51 to 59 percent ...	\$20	572	19 012	S	S	S	33 424	S	12	S	S
All other commercial buildings, nec											
All establishments specializing	975	11 223	291 246	1 093 524	909 118	1 018 938	589 387	74 586	8	8	11
Specialization 100 percent	318	3 615	95 357	366 535	366 535	329 827	187 596	36 708	12	11	10
Specialization 90 to 99 percent ...	158	1 711	42 585	193 894	182 151	183 971	108 027	\$9 923	26	28	48
Specialization 80 to 89 percent ...	172	986	24 255	91 988	74 550	81 875	46 106	\$10 113	29	28	45
Specialization 70 to 79 percent ...	198	2 151	52 733	181 140	130 844	176 127	113 207	5 013	20	20	26
Specialization 60 to 69 percent ...	101	2 006	53 338	183 335	112 895	174 465	91 194	8 870	18	14	11
Specialization 51 to 59 percent ...	29	754	22 979	76 634	42 144	72 673	43 258	\$3 960	22	21	60

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997—Con.

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				A	B						
235610, ROOFING, SIDING, & SHEET METAL CONTRACTORS—Con.											
Commercial warehouses											
All establishments specializing	255	3 154	82 945	305 908	255 355	280 349	151 676	25 559	16	17	27
Specialization 100 percent	120	1 131	29 189	117 639	117 639	106 281	58 143	11 358	23	29	38
Specialization 90 to 99 percent ...	[§] 16	S	S	S	S	S	S	S	S	S	S
Specialization 80 to 89 percent ...	2	D	D	D	D	D	D	D	D	D	D
Specialization 70 to 79 percent ...	79	1 272	29 344	112 769	80 654	99 959	50 712	[§] 12 810	22	23	41
Specialization 60 to 69 percent ...	S	S	S	S	S	S	S	S	S	S	S
Specialization 51 to 59 percent ...	2	D	D	D	D	D	D	D	D	D	D
Educational buildings											
All establishments specializing	422	8 255	224 861	789 331	585 562	725 972	426 540	63 359	10	8	19
Specialization 100 percent	110	1 016	24 429	94 067	94 067	89 433	52 976	4 634	19	18	19
Specialization 90 to 99 percent ...	S	[§] 1 422	27 422	79 734	73 894	76 659	49 830	[§] 3 075	44	23	45
Specialization 80 to 89 percent ...	49	1 111	34 794	123 337	102 934	107 435	67 635	[§] 15 902	20	24	56
Specialization 70 to 79 percent ...	40	1 376	39 142	152 284	112 265	142 135	78 301	[§] 10 148	21	17	41
Specialization 60 to 69 percent ...	98	2 082	63 644	214 423	135 237	192 663	107 051	21 761	17	18	29
Specialization 51 to 59 percent ...	45	1 248	35 429	125 485	67 165	117 647	70 748	7 838	15	10	10

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
235610, ROOFING, SIDING, & SHEET METAL CONTRACTORS		
Total	24 153 350	1
Special trade contractors, total	23 192 494	1
Architectural sheet metal contractor, including gutters and downspouts	2 094 958	4
Carpentry contractor	509 671	6
Heating, ventilation and air-conditioning contractor (HVAC)	343 345	5
Roofing contractor	14 407 154	1
Sheet metal contractor, except HVAC and plumbing	2 808 388	3
Siding contractor	2 418 638	5
Specialty sheet metal contractor, including decking and metal ceilings	610 339	6
Other construction activities, nec	694 339	6
Other business activities secondary to construction activities, total	177 874	6
Other business activities, secondary to construction activities, nec	177 874	6
Kind of business activity, nsk	88 645	18

Table 10. Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
				A	B				C	D	E
235610, ROOFING, SIDING, & SHEET METAL CONTRACTORS											
Total	30 557	253 315	6 494 890	23 967 096	X	21 976 038	13 220 789	1 991 057	1	1	3
Establishments not specializing	2 736	23 291	600 451	2 071 786	X	1 841 590	1 151 513	230 196	5	5	10
Establishments specializing 51 percent or more	27 821	230 024	5 894 439	21 895 310	19 403 747	20 134 449	12 069 277	1 760 861	1	1	3
Architectural sheet metal contractor, including gutters and downspouts											
All establishments specializing	3 112	15 562	398 947	1 423 257	1 277 595	1 328 824	806 784	94 432	6	7	20
Specialization 100 percent	2 216	9 474	234 553	826 833	826 833	784 587	475 040	42 246	8	8	25
Specialization 90 to 99 percent	338	1 719	42 155	123 433	115 987	118 973	76 901	4 460	18	17	30
Specialization 80 to 89 percent	279	1 756	48 840	179 643	147 950	166 128	95 491	13 515	16	16	23
Specialization 70 to 79 percent	183	834	21 044	69 709	51 149	67 391	49 408	2 318	22	20	38
Specialization 60 to 69 percent	70	1 395	42 467	S	S	152 409	90 969	S	25	S	S
Specialization 51 to 59 percent	25	385	9 887	47 154	25 534	39 337	18 974	S	14	38	S
Roofing contractor											
All establishments specializing	16 773	164 136	4 061 628	15 256 621	13 654 860	14 148 414	8 466 688	1 108 208	1	1	4
Specialization 100 percent	10 820	79 880	1 818 040	7 157 787	7 157 787	6 678 406	3 963 296	479 381	2	2	5
Specialization 90 to 99 percent	2 071	29 949	796 148	2 850 566	2 675 818	2 639 576	1 596 357	210 990	5	4	17
Specialization 80 to 89 percent	1 319	21 948	578 138	2 084 223	1 726 326	1 946 273	1 203 324	137 950	4	4	10
Specialization 70 to 79 percent	1 195	16 229	439 752	1 547 918	1 134 658	1 443 314	817 974	104 604	5	5	14
Specialization 60 to 69 percent	946	10 345	276 522	1 032 895	644 714	945 489	539 631	87 406	7	8	12
Specialization 51 to 59 percent	422	5 785	153 029	583 232	315 557	495 355	346 106	87 877	10	8	11
Sheet metal contractor, except HVAC and plumbing											
All establishments specializing	1 817	24 416	792 726	2 429 154	2 075 392	2 226 687	1 436 399	202 467	5	4	4
Specialization 100 percent	1 224	12 873	400 145	1 172 595	1 172 595	1 102 522	732 861	70 073	7	6	4
Specialization 90 to 99 percent	158	2 428	84 802	278 145	262 410	239 075	153 483	39 071	12	12	10
Specialization 80 to 89 percent	113	2 070	62 904	188 128	153 706	174 832	121 938	13 296	14	8	4
Specialization 70 to 79 percent	125	2 061	65 929	198 114	145 612	182 391	113 561	15 723	14	11	10
Specialization 60 to 69 percent	139	2 326	79 276	271 222	168 871	238 110	149 874	33 112	9	8	14
Specialization 51 to 59 percent	57	2 657	99 669	320 949	172 198	289 756	164 681	31 193	17	15	7
Siding contractor											
All establishments specializing	5 330	20 599	477 133	2 192 959	1 876 850	1 864 694	1 014 469	328 264	5	5	10
Specialization 100 percent	2 926	9 957	218 117	1 050 865	1 050 865	878 652	463 569	172 213	7	9	14
Specialization 90 to 99 percent	734	2 214	44 725	200 216	186 351	173 251	86 741	26 965	14	13	20
Specialization 80 to 89 percent	483	2 156	53 177	214 407	176 736	193 730	113 101	20 677	12	14	31
Specialization 70 to 79 percent	510	2 473	57 580	241 422	179 019	212 075	117 506	\$29 346	19	19	42
Specialization 60 to 69 percent	449	1 682	42 747	213 797	134 001	178 066	95 075	35 731	15	17	32
Specialization 51 to 59 percent	228	2 117	60 788	272 252	149 878	228 919	138 477	43 333	14	15	19
Specialty sheet metal contractor, including decking and metal ceilings											
All establishments specializing	486	4 520	145 551	512 295	438 025	492 255	297 698	20 040	8	9	19
Specialization 100 percent	295	2 629	82 506	280 062	280 062	267 657	155 194	12 406	12	12	30
Specialization 90 to 99 percent	*83	S	10 769	S	S	S	S	144	S	S	Z
Specialization 80 to 89 percent	7	159	4 220	11 171	9 082	D	7 410	D	3	3	D
Specialization 70 to 79 percent	*59	429	12 587	36 973	27 306	D	23 883	D	8	7	D
Specialization 60 to 69 percent	18	443	18 373	73 091	45 538	68 363	30 324	4 728	11	15	11
Specialization 51 to 59 percent	*23	466	17 096	69 204	37 087	67 517	47 492	1 688	31	35	23

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Value of construction work done in this state	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
		Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E	
		A	B	C	D	E	F	G			
235610, ROOFING, SIDING, & SHEET METAL CONTRACTORS											
United States	23 967 096	19 515	17 247 375	5 080	1 999 570	10 975	4 720 151	1	1	3	
Alabama	306 904	246	167 874	91	33 289	180	105 741	15	17	9	
Alaska	71 222	^{§46}	^{§45} 884	^{§38}	9 402	^{§21}	15 936	26	41	15	
Arizona	381 914	262	304 271	30	23 719	144	53 925	6	4	5	
Arkansas	133 401	150	74 041	49	28 984	^{§43}	^{§30} 377	16	19	17	
California	2 720 514	1 967	2 141 434	48	53 525	1 057	525 555	3	4	4	
Colorado	576 107	390	401 576	44	^{§26} 145	206	148 386	9	13	40	
Connecticut	348 216	260	241 071	57	20 896	161	86 249	8	12	9	
Delaware	122 315	46	53 823	52	51 083	^{§35}	17 409	3	11	2	
District of Columbia	92 330	^{§16}	D	79	D	—	—	2	D	D	
Florida	1 459 598	1 217	1 004 743	100	79 709	728	375 147	4	6	2	
Georgia	604 219	448	381 033	201	82 635	286	140 552	6	8	7	
Hawaii *	144 875	108	124 591	4	4 428	^{§19}	^{§15} 856	18	22	Z	
Idaho	102 896	87	75 424	56	11 174	84	16 298	13	17	16	
Illinois	1 316 468	935	989 193	234	80 100	454	247 175	3	4	11	
Indiana	573 880	535	441 593	197	50 711	250	81 575	7	9	14	
Iowa	252 098	255	183 255	72	20 034	140	48 810	7	7	12	
Kansas	237 705	250	150 394	150	37 869	133	49 442	6	9	7	
Kentucky	355 498	288	207 054	202	59 898	152	88 546	7	12	13	
Louisiana	288 354	342	201 329	69	21 719	106	65 306	10	16	14	
Maine	89 854	52	75 738	7	582	15	13 534	3	4	13	
Maryland	507 698	282	270 415	127	76 965	218	160 318	11	8	11	
Massachusetts	485 244	365	332 216	109	43 392	197	109 637	8	12	19	
Michigan	901 298	638	711 412	198	49 050	381	140 837	4	5	6	
Minnesota	586 275	393	483 727	133	23 990	173	78 558	6	8	8	
Mississippi	175 814	172	124 693	122	37 235	73	^{§13} 885	8	10	9	
Missouri	549 544	504	352 182	142	75 038	384	122 323	5	8	14	
Montana	48 977	81	43 910	^{§8}	D	^{§45}	D	15	19	D	
Nebraska	173 509	156	150 759	65	15 219	33	7 531	17	19	32	
Nevada	213 614	84	159 062	108	34 782	26	19 771	7	10	16	
New Hampshire	73 056	^{§54}	49 438	80	9 402	^{§52}	^{§14} 216	12	20	19	
New Jersey	814 087	559	557 418	217	72 331	410	184 338	9	13	7	
New Mexico	79 768	^{§59}	35 072	^{§39}	15 675	91	29 021	8	13	4	
New York	1 064 668	790	737 664	147	39 404	718	287 599	4	5	8	
North Carolina	739 265	769	581 495	145	83 227	362	74 543	7	9	4	
North Dakota	69 832	67	47 085	^{§31}	^{§2} 857	^{§34}	19 890	5	7	40	
Ohio	1 192 008	1 117	912 245	222	96 934	496	182 829	4	5	16	
Oklahoma	188 825	179	129 646	69	13 357	106	45 822	8	11	7	
Oregon	410 290	424	288 214	101	38 484	216	83 593	6	7	35	
Pennsylvania	1 067 359	1 040	756 846	195	68 159	434	242 354	3	5	19	
Rhode Island	68 120	80	47 110	31	6 428	^{§49}	^{§14} 582	10	18	23	
South Carolina	326 738	293	227 890	160	56 283	179	^{§42} 566	12	15	8	
South Dakota	48 683	43	39 053	31	5 756	^{§28}	S	13	14	20	
Tennessee	397 109	330	254 543	136	62 469	233	80 097	5	8	13	
Texas	1 326 799	925	1 001 925	65	47 660	667	277 214	6	8	8	
Utah	197 435	252	153 102	10	3 697	85	^{§40} 636	12	7	1	
Vermont	47 708	72	33 703	^{§29}	5 833	^{§38}	8 172	12	19	25	
Virginia	774 484	584	541 600	229	113 033	338	119 850	6	9	13	
Washington	623 674	603	489 731	76	52 513	353	81 431	5	7	8	
West Virginia	109 027	97	40 754	69	18 708	96	49 565	14	13	9	
Wisconsin	468 856	532	386 377	118	27 660	244	54 819	5	6	12	
Wyoming	58 961	73	D	89	D	1	D	15	D	D	

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **All other nonresidential buildings.** Includes nonresidential buildings that are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military non-building such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Concrete Contractors

1997

Issued November 1999

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1997 Economic Census

Construction

Industry Series



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Economics and Statistics Administration
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1997 Economic Census

Construction

Industry Series



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econgguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
235710	Concrete contractors	30 417	262 256	6 858 140	25 848 848	23 603 728	14 159 429	9 762 065	701 491
177120	Concrete work special trade contractors (pt) ..	30 417	262 256	6 858 140	25 848 848	23 603 728	14 159 429	9 762 065	701 491

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers	
235710, CONCRETE CONTRACTORS										
United States	30 417	262 256	222 121	184 155	232 001	245 023	227 306	6 858 140	5 298 498	1
Alabama	393	2 648	2 186	1 929	2 152	2 387	2 277	57 629	43 425	13
Alaska	47	159	130	84	158	196	81	4 479	3 626	15
Arizona	471	8 771	7 615	7 105	7 735	7 949	7 672	223 584	169 742	4
Arkansas	186	1 385	1 190	1 237	1 215	1 224	1 084	29 638	22 102	9
California	2 471	28 919	24 828	22 702	24 736	26 887	24 988	833 665	645 484	2
Colorado	842	9 047	8 006	7 211	8 606	8 853	7 353	235 859	192 246	6
Connecticut	349	2 127	1 677	1 148	1 818	1 909	1 833	59 599	45 326	9
Delaware	91	959	780	684	781	828	829	25 223	19 220	10
District of Columbia	4	34	26	22	28	32	22	1 379	1 058	Z
Florida	1 773	15 250	12 853	12 369	12 927	13 113	13 003	354 810	263 690	4
Georgia	619	7 520	6 345	6 065	6 392	6 594	6 329	183 766	139 571	6
Hawaii *	44	450	345	329	350	343	359	15 410	10 598	8
Idaho	368	2 054	1 815	1 333	1 825	2 122	1 980	36 596	30 886	9
Illinois	1 472	12 951	10 808	7 480	12 063	12 498	11 189	428 429	337 978	4
Indiana	812	6 361	5 338	4 402	5 752	6 098	5 100	163 366	125 092	7
Iowa	520	3 629	3 164	2 331	3 548	3 722	3 057	85 259	68 080	8
Kansas	444	3 893	3 371	2 852	3 641	3 727	3 222	92 148	72 670	10
Kentucky	509	3 941	3 361	2 762	3 632	3 697	3 352	80 738	62 269	14
Louisiana	227	2 043	1 769	1 360	1 693	2 063	1 960	39 101	31 169	14
Maine	188	793	686	365	736	934	711	17 072	14 278	10
Maryland	592	7 560	6 188	5 242	6 323	6 636	6 549	200 171	148 023	6
Massachusetts	570	3 918	3 203	2 151	3 404	3 773	3 482	116 567	89 692	8
Michigan	1 439	10 411	8 694	5 188	9 118	10 483	9 988	326 863	249 160	6
Minnesota	708	5 341	4 463	2 943	4 831	5 488	4 591	170 179	134 413	16
Mississippi	153	1 370	1 221	1 194	1 288	1 231	1 171	26 649	21 887	26
Missouri	1 007	7 593	6 487	5 336	6 717	7 235	6 659	187 711	144 890	5
Montana	187	1 027	898	700	885	1 030	976	18 621	15 674	21
Nebraska	326	2 138	1 812	1 257	2 120	2 136	1 737	43 117	34 075	10
Nevada	176	4 095	3 617	3 538	3 771	3 649	3 512	130 907	106 081	4
New Hampshire	149	706	606	402	603	704	716	19 698	14 937	20
New Jersey	705	4 974	4 226	3 325	4 447	4 771	4 362	137 811	107 172	7
New Mexico	141	1 166	990	868	907	983	1 204	25 718	19 302	17
New York	1 173	10 010	8 153	5 784	8 628	9 542	8 658	292 214	222 226	6
North Carolina	768	5 730	4 805	4 832	5 036	4 817	4 535	125 263	89 795	9
North Dakota	135	739	601	350	732	821	502	12 556	9 738	15
Ohio	1 527	13 236	11 057	7 555	12 001	13 051	11 620	403 125	312 556	5
Oklahoma	291	1 966	1 685	1 430	1 680	1 885	1 745	40 501	30 419	15
Oregon	568	3 892	3 328	3 048	3 219	3 621	3 426	105 760	87 985	10
Pennsylvania	1 366	9 801	8 234	6 166	8 924	9 362	8 485	252 297	195 274	5
Rhode Island	130	601	484	302	554	522	560	14 297	10 732	16
South Carolina	392	2 520	2 068	2 076	2 110	2 101	1 987	56 199	39 672	10
South Dakota	213	650	604	332	647	758	680	14 247	12 641	15
Tennessee	486	4 248	3 568	3 141	3 706	3 744	3 682	115 166	84 740	13
Texas	1 873	21 697	18 578	16 523	18 651	19 434	19 704	462 773	356 158	4
Utah	482	2 758	2 424	2 082	2 622	2 606	2 387	60 757	51 226	10
Vermont	101	448	350	189	412	453	346	11 474	8 645	12
Virginia	805	8 429	7 099	6 533	7 606	7 352	6 906	196 117	146 561	7
Washington	905	4 955	4 217	3 692	4 438	4 423	4 315	122 848	96 536	7
West Virginia	134	821	663	509	723	687	733	15 820	12 370	29
Wisconsin	939	5 878	4 944	3 224	5 453	5 892	5 205	173 170	138 233	5
Wyoming	147	646	557	475	656	613	485	11 796	9 173	23

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
235710, CONCRETE CONTRACTORS										
United States	25 848 848	23 603 728	14 159 429	9 762 065	2 245 119	511 485	701 491	5 930 597	1	2
Alabama	186 751	177 352	117 963	60 464	9 399	4 851	6 888	57 998	11	13
Alaska	17 250	16 627	8 443	8 242	623	267	354	3 333	10	17
Arizona	771 960	718 543	422 765	295 986	53 416	15 792	16 851	140 741	3	8
Arkansas	104 491	97 397	58 822	40 696	7 094	1 324	4 141	25 478	11	29
California	3 097 007	2 764 013	1 665 687	1 109 350	332 994	67 824	60 700	522 492	3	4
Colorado	816 685	774 046	489 298	295 466	42 639	18 674	23 621	171 777	5	10
Connecticut	217 966	206 317	129 115	84 561	11 648	3 692	5 807	68 693	8	21
Delaware	111 659	92 211	56 653	35 895	19 448	2 722	3 190	23 209	9	21
District of Columbia	3 644	3 219	2 252	967	425	64	56	346	Z	Z
Florida	1 385 668	1 223 143	736 161	495 334	162 525	25 784	33 102	295 940	5	9
Georgia	728 553	647 827	378 362	284 940	80 726	16 526	21 350	162 088	5	8
Hawaii *	45 635	43 131	32 495	11 083	2 503	1 507	358	9 865	6	18
Idaho	145 245	137 481	89 571	56 161	7 765	\$4 150	4 560	35 182	11	22
Illinois	1 572 959	1 439 434	871 298	591 663	133 525	26 124	42 709	385 811	4	6
Indiana	642 009	593 396	356 321	240 438	48 613	8 941	18 697	170 017	6	11
Iowa	360 617	333 035	196 817	141 045	27 583	6 892	13 644	108 631	9	15
Kansas	410 429	340 323	196 928	145 255	\$70 106	6 711	12 001	99 538	17	12
Kentucky	318 837	287 151	178 891	111 774	31 687	7 541	9 836	78 655	18	21
Louisiana	131 560	123 893	78 784	49 858	7 667	2 584	\$3 258	22 877	13	44
Maine	61 967	61 292	37 932	30 553	675	\$1 576	3 580	29 633	14	29
Maryland	711 759	660 836	400 708	262 505	50 923	15 746	19 508	164 875	6	8
Massachusetts	395 299	370 599	243 983	131 022	24 700	7 182	8 991	94 665	7	8
Michigan	1 348 005	1 219 292	699 203	563 859	128 713	24 037	40 052	293 279	5	8
Minnesota	607 584	566 635	328 043	242 176	40 949	9 379	18 743	147 249	14	15
Mississippi	111 774	92 200	54 032	38 168	\$19 574	1 668	3 830	31 094	17	24
Missouri	724 610	678 028	399 027	284 201	46 582	11 778	21 590	170 913	4	9
Montana	80 897	72 475	46 586	31 879	\$8 422	\$1 518	\$2 468	23 196	20	40
Nebraska	170 352	161 053	99 160	61 955	9 299	2 823	6 108	52 247	12	14
Nevada	443 750	416 201	251 857	164 364	27 550	10 319	12 119	80 326	4	4
New Hampshire	67 310	63 690	37 849	25 841	\$3 620	1 274	3 625	20 375	17	33
New Jersey	553 447	502 350	301 776	219 613	51 097	13 258	13 506	149 860	9	12
New Mexico	101 054	92 438	53 656	38 847	8 616	1 735	2 894	20 538	21	27
New York	1 041 917	956 633	595 237	379 893	85 284	23 132	28 537	260 825	6	7
North Carolina	467 117	417 906	264 374	153 532	49 211	12 258	15 185	126 065	9	14
North Dakota	55 116	50 023	25 478	24 676	5 092	1 222	2 593	18 235	19	20
Ohio	1 586 535	1 477 323	840 406	645 034	109 213	28 631	41 008	337 396	7	9
Oklahoma	164 714	152 177	86 437	73 702	12 537	3 807	4 756	48 359	16	29
Oregon	330 584	315 909	205 901	113 467	14 675	8 091	10 027	82 953	10	17
Pennsylvania	1 024 536	952 420	548 650	415 023	72 116	21 239	30 637	286 466	6	8
Rhode Island	56 349	54 724	39 926	15 559	1 625	2 569	1 074	23 681	12	26
South Carolina	222 822	202 896	134 102	79 312	19 926	4 876	5 821	63 632	10	12
South Dakota	70 061	67 150	38 425	28 739	2 911	511	1 915	9 196	17	12
Tennessee	517 265	434 774	246 527	190 750	\$82 491	8 749	15 699	132 530	17	22
Texas	1 746 516	1 569 449	910 877	668 903	177 067	31 877	38 515	312 477	4	7
Utah	214 181	203 834	131 103	72 760	10 347	2 989	2 843	43 058	11	19
Vermont	47 026	44 939	22 503	22 436	2 086	1 233	2 744	15 254	13	22
Virginia	685 801	636 249	376 178	272 414	49 552	17 625	21 634	178 653	6	10
Washington	404 943	386 094	259 480	133 875	18 849	9 396	11 273	95 775	7	11
West Virginia	57 041	55 243	34 270	24 575	S	446	2 758	17 975	23	31
Wisconsin	663 693	608 420	348 209	278 716	55 273	7 724	25 297	203 300	5	8
Wyoming	45 899	41 939	30 910	14 541	3 960	847	1 818	13 846	24	22

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
235710, CONCRETE CONTRACTORS			235710, CONCRETE CONTRACTORS—Con.		
Number of establishments in business during year	30 417	1	Selected costs—Con.		
Number of proprietors and working partners	S	S	Cost of selected power, fuels, and lubricants	511 404	2
Total number of employees	262 256	1	Cost of electricity	49 947	3
Number of construction workers in March	184 155	1	Cost of natural gas and manufactured gas	20 418	5
Number of construction workers in May	232 001	1	Cost of gasoline and diesel fuel	411 510	2
Number of construction workers in August	245 023	1	Cost of on-highway use of gasoline and diesel fuel	330 556	2
Number of construction workers in November	227 306	1	Cost of off-highway use of gasoline and diesel fuel	80 954	3
Average number of construction workers	222 121	1	Cost of all other fuels and lubricants	29 529	3
Number of other employees in March	39 210	2	Rental cost for machinery, equipment, and buildings	511 485	2
Number of other employees in May	40 201	2	Rental cost for machinery and equipment	384 183	2
Number of other employees in August	41 048	2	Rental cost for buildings	127 302	2
Number of other employees in November	40 080	2	Selected purchased services	635 060	2
Average number of other employees	40 135	2	Purchased communication services	187 467	2
Payroll, all employees	6 858 140	1	Cost of repairs to buildings and other structures	29 429	5
Payroll, construction workers	5 298 498	1	Cost of repairs to machinery and equipment	418 163	2
Payroll, other employees	1 559 642	1	Value of construction work	25 848 848	1
First-quarter payroll, all employees	1 233 772	1	Value of construction work on government owned projects	4 069 740	4
Fringe benefits, all employees	1 492 508	1	Value of construction work on federally owned projects	658 738	6
Legally required expenditures	1 040 452	1	Value of construction work on state and locally owned projects	3 411 002	5
Voluntary expenditures	452 056	2	Value of construction work on privately owned projects	21 779 108	1
Value of business done	26 166 612	1	Beginning-of-year gross book value of depreciable assets	5 435 492	2
Value of construction work	25 848 848	1	Capital expenditures, other than land	701 491	2
Value of construction work subcontracted in from others	17 515 832	1	Retirements and disposition of depreciable assets	206 387	4
Other business receipts	317 766	13	End-of-year gross book value of depreciable assets	5 930 597	2
Net value of construction	23 603 728	1	Depreciation charges during year	633 797	2
Value added	14 159 429	1	Number of establishments with inventories	6 315	4
Selected costs	12 007 184	2	Value of construction work for establishments with inventories	10 109 137	3
Cost of materials, components, and supplies	9 250 661	1	End of 1997, inventories of materials and supplies	132 619	4
Cost of construction work subcontracted out to others	2 245 119	3	End of 1996, inventories of materials and supplies	142 458	5
			Number of establishments with no inventories	12 393	3
			Value of construction work for establishments with no inventories	10 033 664	2
			Number of establishments not reporting inventories	11 708	3
			Value of construction work for establishments not reporting inventories	5 706 047	2

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235710, CONCRETE CONTRACTORS											
Total	30 417	262 256	6 858 140	26 166 612	25 848 848	23 603 728	14 159 429	9 762 065	2 245 119	1	1
Establishments with 1 to 4 employees	S	34 079	597 074	2 917 952	2 900 493	2 693 772	1 623 877	1 087 355	206 721	3	3
Establishments with 5 to 9 employees	7 174	45 287	969 464	3 767 843	3 739 003	3 531 311	2 126 641	1 433 509	207 692	3	4
Establishments with 10 to 19 employees	4 083	53 781	1 373 474	5 225 705	5 160 058	4 720 527	2 816 390	1 969 783	439 531	4	3
Establishments with 20 to 49 employees	2 115	61 588	1 747 569	6 429 285	6 302 614	5 760 376	3 460 571	2 426 476	542 239	3	3
Establishments with 50 to 99 employees	469	31 297	991 869	3 699 549	3 652 573	3 244 395	1 912 302	1 379 070	408 177	4	4
Establishments with 100 to 249 employees	177	25 513	847 043	3 041 228	3 009 054	2 650 239	1 598 842	1 083 571	358 815	2	2
Establishments with 250 to 499 employees	19	6 533	182 847	593 501	593 501	521 372	338 958	182 414	72 129	Z	Z
Establishments with 500 to 999 employees	2	D	D	D	D	D	D	D	D	D	D
Establishments with 1,000 employees or more	2	D	D	D	D	D	D	D	D	D	D

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235710, CONCRETE CONTRACTORS											
Total	30 417	262 256	6 858 140	26 166 612	25 848 848	23 603 728	14 159 429	9 762 065	2 245 119	1	1
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$100,000 to \$249,999	7 549	20 605	320 411	1 257 636	1 249 536	1 206 427	777 666	436 861	43 110	5	4
Establishments with value of business done \$250,000 to \$499,999	6 748	32 871	612 704	2 392 410	2 382 628	2 277 250	1 400 535	886 497	105 378	4	4
Establishments with value of business done \$500,000 to \$999,999	4 707	39 957	885 014	3 265 000	3 231 266	3 060 732	1 852 399	1 242 067	170 534	4	4
Establishments with value of business done \$1,000,000 to \$2,499,999	3 422	54 254	1 402 009	5 196 726	5 142 453	4 757 975	2 865 008	1 947 240	384 478	3	3
Establishments with value of business done \$2,500,000 to \$4,999,999	1 244	37 659	1 146 971	4 234 929	4 180 253	3 796 820	2 242 466	1 609 029	383 434	3	3
Establishments with value of business done \$5,000,000 to \$9,999,999	535	29 942	955 577	3 715 505	3 621 890	3 253 749	1 928 016	1 419 348	368 141	4	4
Establishments with value of business done \$10,000,000 or more	300	39 826	1 460 827	5 808 012	5 745 127	4 967 802	2 916 271	2 114 416	777 325	2	2

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
235710, CONCRETE CONTRACTORS								
Total	25 848 848	18 737 938	3 558 605	3 217 936	1	1	4	3
Building construction, total	17 221 866	14 031 938	1 871 559	1 318 368	1	1	3	4
Single-family houses, detached and attached	6 818 917	5 915 665	551 440	351 813	2	3	4	7
Single-family houses, detached	5 632 068	4 882 914	456 265	292 889	3	3	5	8
Single-family houses, attached	1 186 849	1 032 751	95 175	58 923	5	6	9	12
Apartment buildings, apartment type condominiums and cooperatives	1 103 714	895 124	85 004	123 586	3	3	11	9
Manufacturing and light industrial buildings	1 436 536	1 001 038	233 778	201 720	4	4	6	12
Manufacturing and light industrial warehouses	835 207	686 448	85 087	63 673	4	4	8	12
Hotels and motels	341 034	286 169	24 614	30 251	3	4	6	13
Office buildings	1 495 312	1 196 435	170 689	128 187	3	3	8	5
All other commercial buildings, nec	1 888 595	1 434 480	234 443	219 673	3	3	6	7
Commercial warehouses	1 093 312	934 335	101 624	57 354	5	5	10	12
Religious buildings	225 365	151 858	50 611	22 895	7	9	6	10
Educational buildings	742 864	545 489	154 491	42 885	4	4	7	12
Health care and institutional buildings	429 457	325 840	73 941	29 676	3	2	8	15
Other building construction	811 551	659 059	105 838	46 654	6	7	15	22
Nonbuilding construction, total	8 292 613	4 706 000	1 687 046	1 899 568	3	3	8	4
Highways, streets, and related work	1 516 712	909 636	316 132	290 944	5	6	7	10
Private driveways and parking areas	5 278 329	2 822 676	1 131 741	1 323 912	4	4	10	5
Bridges, tunnels, and elevated highways	200 895	112 104	31 119	57 672	18	19	20	30
Sewers, water mains, and related facilities	260 486	154 369	38 472	67 645	10	11	19	21
Other nonbuilding construction, nec	1 036 191	707 215	169 582	159 394	7	7	11	13
Construction work, nsk	334 369	X	X	X	6	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
235710, CONCRETE CONTRACTORS											
Total	30 417	262 256	6 858 140	25 848 848	X	23 603 728	14 159 429	2 245 119	1	1	3
Establishments not specializing ..	5 674	81 115	2 367 644	8 363 969	X	7 591 537	4 686 755	772 432	2	2	4
Establishments specializing 51 percent or more	24 742	181 141	4 490 497	17 484 879	14 884 939	16 012 193	9 472 675	1 472 687	1	2	5
Single-family houses, detached and attached											
All establishments specializing	10 618	72 994	1 690 334	6 350 990	5 555 042	5 957 406	3 430 869	393 584	3	3	7
Specialization 100 percent	5 419	27 808	607 349	2 338 977	2 338 977	2 194 777	1 300 079	144 200	4	5	14
Specialization 90 to 99 percent ...	1 781	16 510	403 319	1 499 477	1 411 132	1 411 471	798 482	88 006	7	7	8
Specialization 80 to 89 percent ...	1 091	8 539	209 638	767 981	630 866	718 824	413 250	49 157	8	7	12
Specialization 70 to 79 percent ...	1 169	11 478	266 710	971 972	705 974	917 281	516 794	54 691	6	5	9
Specialization 60 to 69 percent ...	950	6 412	153 266	602 856	374 338	554 242	313 055	48 615	10	10	31
Specialization 51 to 59 percent ...	209	2 248	50 052	169 728	93 754	160 812	89 209	8 916	15	11	14
Apartment buildings, apartment type condominiums and cooperatives											
All establishments specializing	448	5 820	145 585	569 444	459 505	518 011	290 736	51 433	7	7	11
Specialization 100 percent	160	1 262	31 201	121 538	121 538	113 335	60 180	8 203	17	14	23
Specialization 90 to 99 percent ...	41	1 213	32 326	125 784	117 676	106 944	59 963	18 839	13	11	6
Specialization 80 to 89 percent ...	25	541	9 474	48 854	40 877	41 126	24 595	7 728	27	22	60
Specialization 70 to 79 percent ...	104	1 187	30 609	116 011	81 868	112 785	61 706	3 226	15	15	26
Specialization 60 to 69 percent ...	112	1 331	34 488	123 565	79 121	119 335	70 382	4 229	18	18	22
Specialization 51 to 59 percent ...	7	286	7 487	33 693	18 424	24 485	13 911	9 207	9	11	16
Manufacturing and light industrial buildings											
All establishments specializing	538	6 122	166 062	633 960	547 761	563 116	356 669	70 844	8	7	10
Specialization 100 percent	257	3 062	77 175	306 988	306 988	272 372	168 545	34 616	13	13	20
Specialization 90 to 99 percent ...	22	357	11 792	41 480	39 341	37 297	27 159	4 183	23	13	5
Specialization 80 to 89 percent ...	549	515	12 966	59 584	49 225	48 987	30 745	10 596	28	16	2
Specialization 70 to 79 percent ...	92	1 223	37 315	135 922	98 040	123 768	73 741	12 154	15	11	15
Specialization 60 to 69 percent ...	107	738	19 438	68 116	42 337	60 763	39 996	7 354	23	17	7
Specialization 51 to 59 percent ...	12	227	7 374	21 871	11 830	19 930	16 483	1 942	35	27	17
All other commercial buildings, nec											
All establishments specializing	1 248	10 873	260 854	971 533	791 588	855 951	559 969	115 582	7	5	6
Specialization 100 percent	429	3 571	80 022	309 514	309 514	268 471	180 561	41 043	14	9	3
Specialization 90 to 99 percent ...	125	1 320	30 351	133 836	123 744	109 253	69 577	24 583	16	13	11
Specialization 80 to 89 percent ...	145	1 274	29 652	97 383	79 684	89 076	61 232	8 307	21	21	26
Specialization 70 to 79 percent ...	210	2 182	56 976	189 226	136 877	168 894	113 560	20 332	12	11	25
Specialization 60 to 69 percent ...	191	1 769	44 734	160 799	97 886	148 169	95 191	12 631	14	12	7
Specialization 51 to 59 percent ...	148	757	19 119	80 774	43 883	72 087	39 849	8 687	16	15	25
Highways, streets, and related work											
All establishments specializing	397	5 524	158 113	556 945	484 227	529 298	306 850	27 647	10	9	17
Specialization 100 percent	213	2 848	77 598	269 548	269 548	257 925	153 312	11 624	16	14	16
Specialization 90 to 99 percent ...	80	562	12 669	41 626	38 037	39 940	21 976	1 686	27	21	11
Specialization 80 to 89 percent ...	30	770	25 657	85 480	71 329	83 566	50 134	1 914	19	15	5
Specialization 70 to 79 percent ...	27	435	15 068	53 404	39 370	50 532	28 147	2 871	25	19	29
Specialization 60 to 69 percent ...	45	798	22 580	91 318	56 963	82 660	44 640	8 658	24	26	50
Specialization 51 to 59 percent ...	3	112	4 542	15 570	8 980	14 676	8 641	894	Z	Z	Z
Private driveways and parking areas											
All establishments specializing	7 527	49 645	1 251 225	5 369 757	4 460 043	4 856 817	2 907 472	512 940	4	4	11
Specialization 100 percent	5 014	25 789	572 587	2 300 168	2 300 168	2 144 308	1 301 996	155 860	5	5	11
Specialization 90 to 99 percent ...	653	4 499	115 235	531 660	490 815	449 012	276 735	82 648	12	22	51
Specialization 80 to 89 percent ...	667	4 278	111 282	470 197	386 815	430 655	259 532	39 542	12	9	11
Specialization 70 to 79 percent ...	504	4 931	134 028	568 643	411 450	521 649	325 336	46 994	13	11	12
Specialization 60 to 69 percent ...	401	5 983	188 224	901 592	559 241	775 179	432 265	126 413	13	15	27
Specialization 51 to 59 percent ...	289	4 164	129 868	597 496	311 554	536 013	311 608	61 483	14	17	16

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
235710, CONCRETE CONTRACTORS		
Total	26 166 612	1
Heavy construction, total	1 197 942	7
Heavy construction contractor	208 874	20
Highway and street general contractor	136 448	11
Paving contractor—asphalt or concrete for highways, streets, or airport runways	852 621	7
Special trade contractors, total	23 688 117	1
Asphalt contractor, private driveways and parking areas	4 801 695	4
Concrete contractor, except paving of roads, highways, and streets	12 198 788	1
Culvert and curb contractor	1 217 825	5
Excavation work: earthmoving or land clearing contractor, connected with buildings	238 619	5
Foundation contractor, concrete	4 916 352	2
Shotcrete contractor	314 838	9
Other construction activities, nec	871 607	5
Other business activities secondary to construction activities, total	317 093	13
Other business activities, secondary to construction activities, nec	215 664	9
Retail trade, secondary to construction activities	101 429	35
Kind of business activity, nsk	91 855	13

Table 10. **Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
				A	B				C	D	E
235710, CONCRETE CONTRACTORS											
Total	30 417	262 256	6 858 140	25 848 848	X	23 603 728	14 159 429	2 245 119	1	1	3
Establishments not specializing	1 937	24 563	689 874	2 492 848	X	2 248 002	1 414 929	244 846	6	5	5
Establishments specializing 51 percent or more	28 480	237 693	6 168 266	23 356 001	20 265 928	21 355 727	12 744 501	2 000 274	1	1	4
Asphalt contractor, private driveways and parking areas											
All establishments specializing	6 411	47 158	1 246 839	5 443 582	4 256 102	4 888 409	2 862 533	555 173	4	5	11
Specialization 100 percent	2 950	15 215	342 626	1 388 468	1 388 468	1 311 215	788 144	77 253	6	6	9
Specialization 90 to 99 percent	1 051	6 239	156 633	682 685	632 448	619 208	356 997	63 477	9	8	13
Specialization 80 to 89 percent	702	5 710	155 328	713 570	596 917	614 483	353 660	99 087	11	17	44
Specialization 70 to 79 percent	740	6 155	162 328	722 490	521 349	665 947	390 640	56 543	10	9	10
Specialization 60 to 69 percent	547	7 315	208 473	931 618	581 891	819 891	484 818	111 728	12	11	12
Specialization 51 to 59 percent	420	6 524	221 451	1 004 751	535 029	857 665	488 275	147 086	15	16	27
Concrete contractor, except paving of roads, highways, and streets											
All establishments specializing	15 124	130 991	3 412 466	12 295 975	11 006 402	11 305 037	6 844 122	990 938	2	1	4
Specialization 100 percent	9 746	79 130	2 015 065	7 168 225	7 168 225	6 603 130	4 020 250	565 095	2	2	4
Specialization 90 to 99 percent	1 227	10 679	294 392	1 082 225	1 007 119	1 004 493	614 852	77 732	7	6	21
Specialization 80 to 89 percent	1 194	13 219	376 704	1 378 215	1 130 139	1 281 948	747 790	96 267	6	5	14
Specialization 70 to 79 percent	1 006	9 780	253 627	895 458	655 384	819 002	497 765	76 456	6	5	8
Specialization 60 to 69 percent	1 254	10 794	288 378	1 081 138	669 978	977 106	566 954	104 033	6	6	12
Specialization 51 to 59 percent	697	7 387	184 300	690 715	375 557	619 359	396 511	71 356	8	6	9
Culvert and curb contractor											
All establishments specializing	742	8 725	238 586	841 213	741 900	796 265	456 577	44 948	7	6	11
Specialization 100 percent	439	4 942	130 228	462 685	462 685	439 877	243 756	22 808	11	10	21
Specialization 90 to 99 percent	62	873	24 189	78 159	72 129	75 609	44 258	2 550	24	22	6
Specialization 80 to 89 percent	112	622	15 926	61 380	49 877	58 273	37 101	3 107	22	19	1
Specialization 70 to 79 percent	55	1 165	35 277	111 922	83 190	109 330	66 425	2 592	18	16	14
Specialization 60 to 69 percent	71	873	24 909	85 534	52 575	80 403	47 056	5 131	18	15	8
Specialization 51 to 59 percent	5	250	8 057	41 535	21 444	32 774	17 982	8 761	Z	Z	Z
Foundation contractor, concrete											
All establishments specializing	4 749	46 978	1 162 339	4 373 158	3 876 727	3 996 365	2 347 886	376 792	3	3	5
Specialization 100 percent	2 936	26 480	655 623	2 482 611	2 482 611	2 258 943	1 328 178	223 668	4	4	4
Specialization 90 to 99 percent	398	4 712	116 749	443 930	412 437	397 367	242 785	46 562	9	10	21
Specialization 80 to 89 percent	373	4 071	88 621	317 191	261 749	295 480	179 273	21 711	12	11	13
Specialization 70 to 79 percent	483	3 730	91 084	348 905	255 101	327 902	191 388	21 003	11	9	9
Specialization 60 to 69 percent	351	5 590	146 482	545 865	339 644	495 924	281 959	49 941	9	10	30
Specialization 51 to 59 percent	206	2 395	63 780	234 656	125 186	220 749	124 302	13 907	13	12	14

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Value of construction work done in this state	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
		Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E	
		A	B	C	D	E	F	G	A	C	E
235710, CONCRETE CONTRACTORS											
United States	25 848 848	18 111	18 370 792	3 770	1 534 386	12 180	5 943 670	1	2	2	
Alabama	187 672	221	102 762	⁵⁶ 8	21 503	172	63 407	10	18	8	
Alaska	D	⁵⁰ 30	D	13	D	17	D	D	D	D	
Arizona	779 980	273	622 852	18	20 514	198	136 613	4	4	5	
Arkansas	110 066	137	64 226	⁵⁴ 8	11 016	⁵⁰ 0	34 825	12	15	29	
California	3 018 048	1 360	2 309 501	79	21 331	1 111	687 216	3	3	10	
Colorado	767 340	484	599 257	²¹ 2	4 208	338	163 875	5	7	19	
Connecticut	235 522	174	135 330	90	22 230	174	77 963	8	12	27	
Delaware	124 168	51	68 020	37	23 797	39	32 351	6	11	2	
District of Columbia	D	2	D	81	24 037	2	D	D	D	5	
Florida	1 421 799	962	978 179	55	57 970	810	385 650	5	7	7	
Georgia	709 151	345	524 953	109	27 356	274	156 841	5	7	32	
Hawaii *	D	37	40 204	1	D	7	D	D	7	D	
Idaho	133 957	205	102 992	²⁸ 2	2 654	163	28 310	11	16	16	
Illinois	1 565 413	984	1 295 952	125	56 693	483	212 767	4	5	14	
Indiana	693 703	534	449 422	94	78 269	277	166 012	5	6	5	
Iowa	366 347	360	291 596	75	27 765	160	46 986	8	10	15	
Kansas	386 438	245	281 406	110	36 568	179	68 464	23	31	7	
Kentucky	377 069	254	221 221	175	68 788	255	87 061	15	25	7	
Louisiana	123 274	161	84 709	16	12 043	66	26 522	12	17	14	
Maine	61 111	124	41 470	¹⁵ 5	747	⁶⁵ 6	¹⁸ 894	14	24	24	
Maryland	581 896	370	366 297	92	37 469	222	178 130	6	10	16	
Massachusetts	407 195	302	235 515	93	30 094	268	141 587	6	9	8	
Michigan	1 347 583	854	1 103 329	125	15 905	585	228 349	5	6	19	
Minnesota	608 229	461	408 000	111	21 538	247	¹⁷⁸ 691	13	7	21	
Mississippi	147 660	74	56 377	72	41 649	80	49 634	16	30	8	
Missouri	714 802	590	503 059	134	57 733	415	154 011	5	7	15	
Montana	79 164	139	70 792	⁸ 8	⁵⁴⁸ 7	⁴⁸ 2	7 824	22	25	74	
Nebraska	167 439	198	112 119	⁴⁸ 4	10 202	128	45 118	11	18	32	
Nevada	501 839	96	306 817	76	74 886	80	120 136	3	4	3	
New Hampshire	60 400	⁶⁷ 6	38 895	48	5 486	82	16 019	20	31	25	
New Jersey	601 674	470	396 705	81	91 243	229	113 726	8	10	15	
New Mexico	98 080	69	75 503	³⁵ 5	3 889	71	18 688	21	28	15	
New York	1 055 346	678	698 048	84	28 632	495	328 666	5	8	9	
North Carolina	473 992	405	322 973	98	47 249	329	103 770	10	13	9	
North Dakota	65 627	77	45 182	³⁸ 8	12 941	58	⁷ 503	13	18	15	
Ohio	1 337 362	1 012	1 112 539	96	20 715	507	204 108	8	10	8	
Oklahoma	171 490	190	118 526	23	16 167	100	36 797	15	20	Z	
Oregon	369 871	424	288 276	84	49 022	144	32 573	9	11	23	
Pennsylvania	995 922	833	680 927	258	55 349	529	259 646	6	9	11	
Rhode Island	45 492	40	21 152	¹³ 3	2 523	90	21 818	15	24	11	
South Carolina	271 238	177	134 290	161	55 384	214	81 564	9	13	14	
South Dakota	69 090	117	42 802	¹⁸ 6	2 760	96	²³ 528	16	16	34	
Tennessee	514 563	270	371 295	116	26 956	216	116 312	22	30	14	
Texas	1 765 833	982	1 139 202	65	72 531	892	554 100	5	8	6	
Utah	224 694	300	128 360	19	17 106	162	79 228	11	16	1	
Vermont	47 207	71	30 729	²⁹ 9	¹ 378	²⁹ 9	¹⁵ 100	13	22	40	
Virginia	769 946	493	466 441	154	126 468	310	177 037	5	8	4	
Washington	415 527	575	251 556	138	44 435	330	119 536	6	9	17	
West Virginia	82 649	121	46 243	91	26 490	14	S	17	28	19	
Wisconsin	658 600	659	537 170	98	16 799	278	104 631	5	6	27	
Wyoming	46 039	⁵³ 3	33 612	8	700	94	11 727	23	31	15	

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

NUMBER OF CONSTRUCTION WORKERS: QUARTERLY PAY PERIOD

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS NOT REPORTING INVENTORIES

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH NO INVENTORIES

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY PERIOD

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

NUMBER OF PROPRIETORS AND WORKING PARTNERS

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **Other building construction.** Includes all types of residential and nonresidential building construction not shown elsewhere.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military nonbuilding such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 7353 Heavy construction equipment, rental and leasing (pt)
- 8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

- 1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

- 1721 Painting and paper hanging special trade contractors
- 1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Water Well Drilling Contractors

1997

Issued November 1999

EC97C-2358A

1997 Economic Census

Construction

Industry Series



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Industry Series



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
235810	Water well drilling contractors	3 862	21 214	576 191	2 191 264	2 131 884	1 331 018	831 824	128 956
178100	Water well drilling special trade contractors ...	3 862	21 214	576 191	2 191 264	2 131 884	1 331 018	831 824	128 956

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers	
235810, WATER WELL DRILLING CONTRACTORS										
United States	3 862	21 214	15 360	14 423	15 497	16 092	15 426	576 191	399 089	3
Alabama	25	120	95	90	88	102	99	2 912	1 914	17
Alaska	19	61	46	28	40	66	53	1 934	1 467	21
Arizona	39	405	288	281	292	290	290	13 959	10 115	6
Arkansas	42	381	247	242	259	251	237	8 604	5 513	11
California	229	1 675	1 242	1 157	1 225	1 278	1 309	58 372	38 422	4
Colorado	88	554	374	380	389	402	326	16 884	11 784	18
Connecticut	37	192	130	123	125	139	133	6 924	4 894	3
Delaware	13	51	38	38	41	40	35	1 188	948	11
District of Columbia	—	—	—	—	—	—	—	—	—	—
Florida	251	1 820	1 285	1 259	1 277	1 299	1 305	52 411	32 843	24
Georgia	120	542	386	385	390	401	369	10 492	7 222	18
Hawaii *	¹⁰ 41	36	21	24	26	17	17	1 212	709	33
Idaho	73	295	182	217	146	178	186	5 995	4 173	13
Illinois	96	572	395	392	404	398	384	19 342	13 400	10
Indiana	97	472	375	368	360	408	365	11 835	9 009	4
Iowa	60	270	199	150	212	237	198	5 857	4 454	16
Kansas	30	239	167	153	169	180	166	6 739	4 458	11
Kentucky	²¹ 48	64	41	36	46	43	38	1 484	1 178	29
Louisiana	37	199	145	144	148	145	143	3 661	2 216	13
Maine	48	138	95	92	91	95	102	2 557	2 051	5
Maryland	78	542	420	416	416	433	415	15 109	11 497	18
Massachusetts	41	288	179	158	189	183	188	11 892	7 069	6
Michigan	268	1 183	877	768	905	961	874	29 385	21 573	5
Minnesota	104	687	489	446	513	532	463	17 224	12 413	6
Mississippi	34	353	270	257	273	291	259	8 428	6 114	12
Missouri	85	399	288	268	292	313	281	10 012	6 975	19
Montana	61	202	152	121	183	161	144	4 203	3 239	18
Nebraska	86	646	508	500	512	535	484	16 148	12 667	4
Nevada	37	201	141	128	148	145	143	6 104	4 007	9
New Hampshire	38	310	235	151	242	276	269	9 986	6 301	15
New Jersey	60	442	314	306	315	323	311	15 378	10 802	3
New Mexico	41	260	195	182	208	208	184	6 983	5 066	7
New York	130	560	376	322	405	399	379	14 801	10 255	6
North Carolina	167	890	608	600	642	595	593	20 989	12 962	18
North Dakota	23	99	80	66	82	93	77	2 039	1 579	9
Ohio	85	438	305	298	308	308	305	12 476	8 581	6
Oklahoma	46	229	178	187	183	176	166	4 487	3 791	13
Oregon	100	362	261	216	273	266	288	8 635	4 854	10
Pennsylvania	139	709	522	488	519	536	546	18 166	12 815	7
Rhode Island	11	50	21	21	21	21	21	1 469	954	8
South Carolina	80	235	174	178	179	168	172	5 157	3 775	17
South Dakota	21	59	47	37	50	54	49	1 047	779	2
Tennessee	49	290	212	178	224	226	222	6 987	4 888	6
Texas	311	1 609	1 236	1 217	1 208	1 282	1 236	38 413	26 183	3
Utah	¹⁶ 19	137	113	96	104	121	134	4 890	3 778	16
Vermont	19	120	102	96	100	104	106	3 057	2 682	13
Virginia	90	587	394	388	387	401	399	13 851	9 189	6
Washington	105	443	341	320	324	378	340	12 488	8 893	8
West Virginia	28	50	31	28	20	46	32	851	736	19
Wisconsin	152	605	417	373	438	449	407	18 491	13 597	6
Wyoming	26	140	123	55	109	141	186	4 681	4 302	13

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
235810, WATER WELL DRILLING CONTRACTORS										
United States	2 191 264	2 131 884	1 331 018	831 824	59 380	47 545	128 956	1 318 427	2	5
Alabama	10 996	D	6 763	D	D	206	476	5 991	D	19
Alaska	7 411	7 399	5 058	2 354	S	177	407	6 256	18	35
Arizona	33 275	32 452	20 096	12 356	823	982	1 128	15 229	6	18
Arkansas	32 453	31 759	19 431	14 400	694	448	1 425	16 761	8	13
California	221 564	215 157	141 244	76 474	6 407	5 290	15 083	126 688	5	3
Colorado	72 078	71 399	46 804	27 693	679	1 957	2 838	41 440	23	16
Connecticut	23 849	23 163	13 346	9 816	686	492	1 380	11 626	5	2
Delaware	4 255	4 241	2 421	1 820	14	234	159	815	12	24
District of Columbia										
Florida	171 023	159 886	98 142	63 057	11 137	3 365	*13 076	96 314	20	43
Georgia	48 061	47 207	29 449	17 758	854	582	2 576	26 485	13	6
Hawaii *	4 153	4 153	2 144	2 009	—	*413	554	9 490	17	29
Idaho	31 500	31 083	19 067	12 016	*417	735	1 484	27 845	10	28
Illinois	58 606	57 846	34 560	23 286	760	889	1 891	23 557	7	12
Indiana	49 933	49 073	29 960	19 156	860	784	2 740	26 976	7	11
Iowa	24 851	24 483	14 522	10 891	368	555	1 534	19 575	15	24
Kansas	25 385	24 205	14 110	10 095	1 180	408	890	16 371	7	5
Kentucky	6 220	6 142	3 576	2 566	79	87	87	*2 334	30	34
Louisiana	17 557	D	11 965	D	D	980	659	7 216	D	7
Maine	10 917	10 401	6 605	D	516	151	1 168	8 274	15	27
Maryland	50 655	50 567	31 465	19 166	89	1 052	3 149	29 435	17	13
Massachusetts	38 944	35 902	28 142	10 257	3 042	901	1 256	27 601	7	11
Michigan	119 832	115 680	75 763	40 558	4 152	1 857	7 283	67 333	6	7
Minnesota	67 482	65 877	43 977	22 858	1 605	1 338	4 997	48 197	5	11
Mississippi	37 463	34 994	15 455	19 539	2 469	408	1 296	16 354	8	11
Missouri	44 847	43 686	25 398	19 882	1 161	640	2 902	30 436	22	22
Montana	21 027	20 505	15 467	D	*522	661	852	S	21	28
Nebraska	73 788	71 881	36 146	D	1 907	739	5 461	39 762	7	7
Nevada	25 294	25 043	13 996	11 269	251	579	1 098	19 884	6	16
New Hampshire	29 415	29 131	16 407	12 731	*284	*176	1 760	19 525	9	23
New Jersey	54 304	52 097	33 854	18 243	*2 207	1 317	1 936	33 416	4	8
New Mexico	24 382	24 236	16 057	8 179	146	679	1 377	20 802	4	1
New York	55 357	54 521	35 825	18 697	835	927	2 129	44 825	7	12
North Carolina	84 523	83 057	53 797	29 753	*1 466	4 925	6 157	46 573	17	18
North Dakota	8 251	8 199	4 310	3 888	52	71	*930	*4 440	13	74
Ohio	41 659	41 130	28 736	15 284	529	771	1 933	23 102	7	15
Oklahoma	16 643	16 564	8 457	8 199	79	D	867	10 168	29	32
Oregon	31 804	31 637	21 335	10 338	167	686	926	19 371	9	19
Pennsylvania	72 129	71 448	44 438	27 484	681	793	5 253	48 292	7	33
Rhode Island	5 376	5 376	4 250	1 126	—	*44	S	3 752	3	S
South Carolina	23 325	22 272	12 506	9 936	*1 053	702	1 275	11 443	21	24
South Dakota	4 311	4 290	2 158	S	22	58	224	2 272	12	21
Tennessee	28 658	28 396	19 643	9 604	262	500	2 702	21 419	6	10
Texas	149 252	144 561	87 088	63 099	4 690	2 955	8 101	79 609	3	7
Utah	23 135	22 438	13 465	8 974	697	688	530	5 210	13	14
Vermont	11 395	11 022	7 894	3 129	S	216	532	8 316	16	21
Virginia	58 761	58 037	37 078	20 959	724	S	5 821	43 078	5	34
Washington	43 848	43 065	27 510	16 153	783	875	2 959	33 562	7	11
West Virginia	5 048	4 795	2 376	2 418	S	D	*113	*3 268	13	43
Wisconsin	71 240	69 090	41 122	28 362	2 149	1 524	4 820	41 906	6	8
Wyoming	15 030	14 574	7 638	7 245	*456	373	684	9 591	6	10

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
235810, WATER WELL DRILLING CONTRACTORS			235810, WATER WELL DRILLING CONTRACTORS		
—Con.			—Con.		
Number of establishments in business during year	3 862	2	Selected costs—Con.		
Number of proprietors and working partners	1 626	5	Cost of selected power, fuels, and lubricants	88 600	2
Total number of employees	21 214	3	Cost of electricity	11 055	5
Number of construction workers in March	14 423	3	Cost of natural gas and manufactured gas	2 547	6
Number of construction workers in May	15 497	2	Cost of gasoline and diesel fuel	67 930	2
Number of construction workers in August	16 092	2	Cost of on-highway use of gasoline and diesel fuel	41 605	3
Number of construction workers in November	15 426	2	Cost of off-highway use of gasoline and diesel fuel	26 325	4
Average number of construction workers	15 360	2	Cost of all other fuels and lubricants	7 069	14
Number of other employees in March	5 902	3	Rental cost for machinery, equipment, and buildings	47 545	5
Number of other employees in May	5 832	3	Rental cost for machinery and equipment	25 797	8
Number of other employees in August	5 846	3	Rental cost for buildings	21 749	5
Number of other employees in November	5 838	3	Selected purchased services	113 897	3
Average number of other employees	5 855	3	Purchased communication services	28 997	3
Payroll, all employees	576 191	3	Cost of repairs to buildings and other structures	5 002	7
Payroll, construction workers	399 089	3	Cost of repairs to machinery and equipment	79 898	4
Payroll, other employees	177 102	5	Value of construction work	2 191 264	2
First-quarter payroll, all employees	123 489	3	Value of construction work on government owned projects	401 789	3
Fringe benefits, all employees	125 173	3	Value of construction work on federally owned projects	127 545	2
Legally required expenditures	85 870	3	Value of construction work on state and locally owned projects	274 244	4
Voluntary expenditures	39 303	3	Value of construction work on privately owned projects	1 789 475	2
Value of business done	2 222 222	2	Beginning-of-year gross book value of depreciable assets	1 226 334	3
Value of construction work	2 191 264	2	Capital expenditures, other than land	128 956	5
Value of construction work subcontracted in from others	406 758	6	Retirements and disposition of depreciable assets	36 863	7
Other business receipts	30 958	7	End-of-year gross book value of depreciable assets	1 318 427	3
Net value of construction	2 131 884	2	Depreciation charges during year	121 093	3
Value added	1 331 018	2	Number of establishments with inventories	2 017	4
Selected costs	891 204	2	Value of construction work for establishments with inventories	1 415 778	3
Cost of materials, components, and supplies	743 224	2	End of 1997, inventories of materials and supplies	70 067	3
Cost of construction work subcontracted out to others	59 380	8	End of 1996, inventories of materials and supplies	68 807	3
			Number of establishments with no inventories	805	8
			Value of construction work for establishments with no inventories	364 677	7
			Number of establishments not reporting inventories	1 040	6
			Value of construction work for establishments not reporting inventories	410 809	5

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235810, WATER WELL DRILLING CONTRACTORS											
Total	3 862	21 214	576 191	2 222 222	2 191 264	2 131 884	1 331 018	831 824	59 380	3	2
Establishments with 1 to 4 employees	2 432	5 026	96 940	542 035	533 983	522 974	333 678	197 348	11 009	4	4
Establishments with 5 to 9 employees	899	5 686	135 136	541 769	533 669	526 495	326 086	208 509	7 174	5	5
Establishments with 10 to 19 employees	361	4 648	133 446	471 348	461 989	450 282	276 528	183 113	11 707	6	5
Establishments with 20 to 49 employees	147	4 050	144 883	458 182	452 735	432 662	271 760	166 349	20 073	9	5
Establishments with 50 to 99 employees	20	D	D	D	D	D	D	D	D	D	D
Establishments with 100 to 249 employees	3	D	D	D	D	D	D	D	D	D	D
Establishments with 250 to 499 employees	—	—	—	—	—	—	—	—	—	—	—
Establishments with 500 to 999 employees	—	—	—	—	—	—	—	—	—	—	—
Establishments with 1,000 employees or more	—	—	—	—	—	—	—	—	—	—	—

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235810, WATER WELL DRILLING CONTRACTORS											
Total	3 862	21 214	576 191	2 222 222	2 191 264	2 131 884	1 331 018	831 824	59 380	3	2
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	—	S	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	S	435	5 281	24 946	24 613	24 398	14 506	S	215	14	14
Establishments with value of business done \$100,000 to \$249,999	1 044	2 177	34 980	177 871	174 742	172 770	102 162	73 738	1 972	8	7
Establishments with value of business done \$250,000 to \$499,999	1 008	3 867	78 752	351 446	346 704	338 901	213 446	130 197	7 803	6	6
Establishments with value of business done \$500,000 to \$999,999	724	4 830	121 373	497 549	491 387	484 965	304 549	186 579	6 421	5	6
Establishments with value of business done \$1,000,000 to \$2,499,999	363	5 053	153 783	545 134	533 957	520 211	318 942	212 447	13 746	6	5
Establishments with value of business done \$2,500,000 to \$4,999,999	88	2 424	92 523	310 713	305 336	290 862	187 335	108 905	14 474	15	8
Establishments with value of business done \$5,000,000 to \$9,999,999	28	1 316	50 762	190 205	190 167	183 065	119 217	63 886	7 102	Z	4
Establishments with value of business done \$10,000,000 or more	8	860	36 560	115 689	115 689	108 162	65 784	42 378	7 527	Z	Z

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
235810, WATER WELL DRILLING CONTRACTORS								
Total	2 191 264	1 604 395	170 446	376 224	2	3	4	3
Building construction, total	662 314	469 967	76 911	115 436	4	4	6	7
Single-family houses, detached and attached	550 525	394 742	59 690	96 093	4	5	7	7
Single-family houses, detached	505 646	361 547	53 647	90 452	4	5	7	7
Single-family houses, attached	44 879	33 194	6 044	5 641	16	20	11	12
Office buildings	14 789	9 946	*3 477	1 366	15	10	55	24
All other commercial buildings, nec	25 762	20 186	1 737	3 839	10	10	6	23
Farm buildings, nonresidential	21 631	12 499	2 673	6 458	12	12	15	24
Other building construction	49 608	32 594	S	7 680	4	6	S	7
Nonbuilding construction, total	1 488 752	1 134 428	93 536	260 789	3	4	5	4
Sewers, water mains, and related facilities	1 321 048	1 011 251	78 871	230 926	3	3	6	4
Sewers, sewer lines, septic systems, and related facilities	8 138	6 178	760	1 200	19	22	15	23
Water mains and related facilities	1 312 911	1 005 073	78 112	229 727	3	3	6	4
Sewage and water treatment plants	52 990	29 206	6 908	16 877	11	18	Z	9
Sewage treatment plants	23 600	19 662	D	D	24	26	D	D
Water treatment plants	29 391	9 543	D	D	8	16	D	D
Water storage facilities	21 896	15 728	S	2 954	2	1	S	1
Other nonbuilding construction, nec	92 817	78 243	4 542	10 032	29	35	14	3
Construction work, nsk	40 198	X	X	X	8	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				A	C						
235810, WATER WELL DRILLING CONTRACTORS											
Total	3 862	21 214	576 191	2 191 264	X	2 131 884	1 331 018	59 380	3	2	8
Establishments not specializing ..	144	829	26 523	90 738	X	87 452	56 980	*3 286	6	6	42
Establishments specializing 51 percent or more	3 719	20 385	549 668	2 100 526	2 007 239	2 044 432	1 274 038	56 094	3	2	8
Single-family houses, detached and attached											
All establishments specializing	1 344	5 698	144 376	555 050	507 554	547 958	344 627	7 091	5	4	10
Specialization 100 percent	660	2 458	60 840	244 089	244 089	241 503	152 542	2 586	9	9	15
Specialization 90 to 99 percent ...	347	1 591	43 724	160 083	150 362	157 882	101 683	2 202	6	6	28
Specialization 80 to 89 percent ...	140	679	18 688	71 457	59 281	70 388	41 881	1 069	14	11	15
Specialization 70 to 79 percent ...	138	601	11 285	48 412	35 466	47 746	29 520	666	19	15	5
Specialization 60 to 69 percent ...	35	232	5 616	18 972	11 840	D	11 504	D	20	18	D
Specialization 51 to 59 percent ...	S	137	4 224	12 037	6 517	D	7 496	D	8	5	D
Sewers, water mains, and related facilities											
All establishments specializing	2 128	12 697	342 748	1 342 817	1 305 928	1 305 542	813 433	37 276	3	3	6
Specialization 100 percent	1 981	11 118	299 284	1 185 839	1 185 839	1 155 669	717 950	30 170	2	3	4
Specialization 90 to 99 percent ...	54	486	11 213	45 877	42 918	44 257	28 897	*1 620	13	12	40
Specialization 80 to 89 percent ...	*15	161	4 110	16 846	14 246	D	9 609	D	34	37	D
Specialization 70 to 79 percent ...	*61	*602	*15 871	*53 286	*39 396	*51 130	*29 785	S	44	43	S
Specialization 60 to 69 percent ...	4	157	6 913	21 824	13 611	D	13 971	D	Z	Z	D
Specialization 51 to 59 percent ...	*12	173	5 356	19 145	9 918	18 527	13 221	*618	29	26	53

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
235810, WATER WELL DRILLING CONTRACTORS		
Total	2 222 222	2
Special trade contractors, total	2 107 423	2
Plumbing contractor	16 003	16
Water well drilling contractor	2 091 420	2
Other construction activities, nec	66 926	10
Other business activities secondary to construction activities, total	30 336	7
Other business activities, secondary to construction activities, nec	8 851	16
Retail trade, secondary to construction activities	21 485	7
Kind of business activity, nsk	17 538	15

Table 10. **Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
				A	B				C	D	E
235810, WATER WELL DRILLING CONTRACTORS											
Total	3 862	21 214	576 191	2 191 264	X	2 131 884	1 331 018	59 380	3	2	8
Establishments not specializing	38	306	7 908	26 869	X	26 282	20 416	^s 587	16	17	52
Establishments specializing 51 percent or more ..	3 824	20 909	568 283	2 164 394	2 077 451	2 105 602	1 310 602	58 792	3	2	8
Water well drilling contractor											
All establishments specializing	3 780	20 738	563 863	2 147 356	2 060 412	2 088 884	1 300 103	58 472	3	2	8
Specialization 100 percent	3 175	16 132	437 984	1 740 684	1 740 684	1 695 969	1 044 463	44 715	2	2	4
Specialization 90 to 99 percent	134	1 220	31 230	117 200	112 322	113 742	66 400	3 458	9	9	22
Specialization 80 to 89 percent	144	1 228	^s 37 563	110 121	91 813	102 576	66 726	^s 7 545	36	33	55
Specialization 70 to 79 percent	149	834	20 705	70 544	51 762	69 975	47 267	569	16	12	7
Specialization 60 to 69 percent	89	710	18 824	57 789	36 703	56 214	41 593	1 575	9	8	21
Specialization 51 to 59 percent	90	614	17 557	51 018	27 129	50 407	33 653	611	14	12	18

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
235810, WATER WELL DRILLING CONTRACTORS										
United States	2 191 264	2 430	1 555 904	564	143 067	1 431	492 293	2	3	2
Alabama	19 034	8	8 159	17	8 876	17	2 000	8	18	Z
Alaska	7 911	10	5 437	^{s7}	500	10	^{s1} 975	17	31	12
Arizona	35 416	^{s29}	23 496	^{s15}	3 223	10	8 697	6	10	8
Arkansas	39 762	20	19 769	^{s18}	8 186	21	11 807	7	7	8
California	213 518	148	160 350	5	D	82	D	5	7	D
Colorado	73 986	75	64 189	^{s18}	3 081	13	6 716	22	25	7
Connecticut	25 087	31	14 943	9	1 630	6	8 515	4	7	Z
Delaware	4 389	10	3 313	3	138	4	^{s939}	12	14	Z
District of Columbia	D	—	—	3	D	—	—	D	—	D
Florida	167 409	168	145 732	7	2 311	83	19 366	21	25	6
Georgia	51 059	^{s49}	30 637	21	3 653	71	16 768	12	19	8
Hawaii *	4 153	^{s9}	D	—	—	1	D	17	D	—
Idaho	35 383	^{s45}	21 394	8	4 490	^{s28}	^{s9} 499	9	32	3
Illinois	61 519	66	47 805	8	4 507	^{s31}	^{s9} 207	7	4	2
Indiana	51 657	67	33 460	13	2 376	30	15 821	7	10	11
Iowa	27 624	37	15 796	9	D	^{s22}	D	14	22	D
Kansas	18 481	12	13 878	5	239	^{s18}	4 364	9	9	Z
Kentucky	5 640	^{s13}	^{s3} 432	11	1 147	9	1 060	28	46	Z
Louisiana	20 521	^{s15}	15 832	6	2 963	^{s21}	^{s4} 726	3	5	Z
Maine	11 510	42	8 986	4	603	6	1 921	14	18	Z
Maryland	46 841	^{s65}	36 010	17	1 016	13	9 815	18	24	16
Massachusetts	40 072	32	22 875	17	9 203	9	7 994	7	11	12
Michigan	120 668	196	98 097	10	2 062	72	20 509	5	7	13
Minnesota	67 376	54	45 564	8	3 112	50	18 701	5	8	1
Mississippi	32 042	^{s20}	24 456	3	D	^{s14}	D	10	12	D
Missouri	43 117	48	29 401	7	D	38	D	22	31	D
Montana	20 784	35	13 296	1	D	^{s25}	D	22	36	D
Nebraska	69 245	62	60 841	^{s5}	D	24	D	7	13	D
Nevada	28 027	26	16 033	9	6 878	12	5 116	4	7	2
New Hampshire	28 910	31	21 857	14	^{s4} 269	^{s7}	^{s2} 785	12	10	55
New Jersey	57 166	46	38 286	7	3 972	13	14 908	6	8	Z
New Mexico	25 093	13	7 561	17	8 544	^{s28}	8 988	4	5	1
New York	55 535	86	42 133	17	1 558	44	11 845	7	10	8
North Carolina	84 743	103	64 313	12	2 532	64	17 898	16	21	8
North Dakota	5 700	^{s16}	4 023	3	197	8	^{s4} 480	18	27	1
Ohio	40 506	46	26 113	^{s17}	^{s1} 109	39	13 284	7	10	55
Oklahoma	18 888	25	6 711	15	2 245	^{s21}	^{s9} 932	25	12	5
Oregon	26 802	72	23 300	12	926	28	2 576	11	13	4
Pennsylvania	68 711	102	54 899	^{s45}	1 987	36	11 825	7	10	18
Rhode Island	D	8	1 008	3	D	S	D	D	26	D
South Carolina	24 468	16	10 964	6	2 334	^{s64}	11 170	19	20	Z
South Dakota	5 011	^{s9}	1 646	15	839	^{s12}	2 526	10	21	4
Tennessee	26 252	22	15 652	14	2 394	27	8 206	6	12	12
Texas	D	167	107 220	6	D	144	D	D	5	D
Utah	15 778	2	D	^{s7}	D	^{s14}	D	16	D	D
Vermont	8 873	13	6 537	7	759	^{s6}	S	21	22	16
Virginia	58 504	62	37 840	12	2 057	29	18 607	5	15	5
Washington	47 155	58	29 762	4	4 053	47	13 340	6	10	Z
West Virginia	10 259	26	D	^{s34}	5 986	2	D	11	D	6
Wisconsin	71 385	113	49 403	20	4 392	40	17 590	6	11	4
Wyoming	16 708	7	11 466	15	1 677	^{s19}	3 564	6	6	7

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **Other building construction.** Includes all types of residential and nonresidential building construction not shown elsewhere.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military nonbuilding such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Structural Steel Erection Contractors

1997

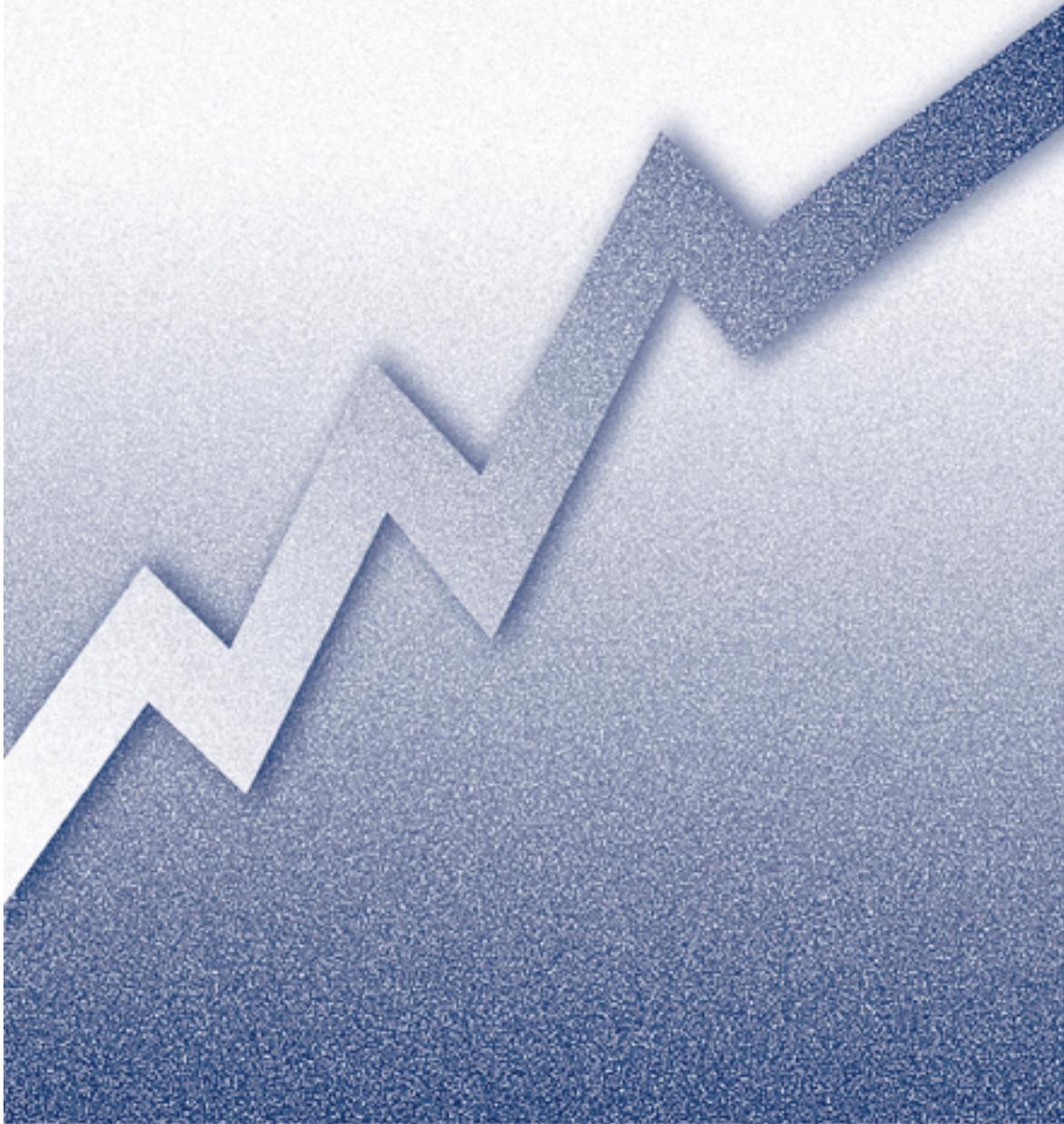
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Structural Steel Erection Contractors

1997

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1997 Economic Census

Construction

Industry Series



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Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
235910 179100	Structural steel erection contractors	4 238	72 301	2 387 071	8 009 223	7 216 973	4 863 623	2 496 799	120 938
	Structural steel erection special trade contractors	4 238	72 301	2 387 071	8 009 223	7 216 973	4 863 623	2 496 799	120 938

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—	
		All	Con- struction workers	January to March	April to June	July to September	October to December	All employees	Construction workers		
											A
235910, STRUCTURAL STEEL ERECTION CONTRACTORS											
United States	4 238	72 301	59 923	57 112	59 512	62 304	60 765	2 387 071	1 822 653	1	
Alabama	55	1 441	1 202	1 320	1 134	1 173	1 182	45 091	34 943	7	
Alaska	13	119	97	49	107	^{\$118} 114	114	5 395	4 118	34	
Arizona	87	1 074	930	914	934	925	946	34 822	28 148	16	
Arkansas	^{\$55} 287	228	255	255	214	224	221	5 792	3 880	23	
California	482	9 784	7 962	7 441	8 157	8 349	7 902	346 588	258 592	3	
Colorado	87	1 814	1 533	1 510	1 597	1 519	1 504	53 690	40 578	13	
Connecticut	59	1 244	1 029	986	1 070	1 071	989	55 489	39 624	3	
Delaware	11	315	249	224	261	208	302	13 022	8 849	12	
District of Columbia	—	—	—	—	—	—	—	—	—	—	
Florida	180	3 204	2 598	2 510	2 625	2 643	2 612	93 249	69 421	5	
Georgia	134	1 832	1 503	1 610	1 563	1 384	1 457	57 296	41 669	8	
Hawaii *	19	352	288	326	283	275	266	15 018	12 467	13	
Idaho	34	467	402	387	384	483	352	10 965	9 034	5	
Illinois	205	2 833	2 301	2 022	2 318	2 393	2 470	106 362	82 818	5	
Indiana	93	2 339	1 968	1 828	1 920	2 009	2 116	79 398	61 223	6	
Iowa	62	789	663	645	612	710	686	20 294	14 298	15	
Kansas	63	931	852	807	942	868	793	23 236	20 690	7	
Kentucky	34	736	639	654	664	656	583	21 564	18 573	23	
Louisiana	85	1 358	1 133	1 062	1 202	1 188	1 079	39 012	29 713	9	
Maine	8	77	66	50	61	76	78	1 806	1 400	14	
Maryland	49	1 185	997	988	1 045	1 023	931	39 702	30 839	7	
Massachusetts	69	S	S	S	S	S	1 192	S	S	S	
Michigan	127	2 118	1 748	1 536	1 713	1 909	1 833	79 406	61 857	5	
Minnesota	57	1 392	1 134	884	1 078	1 417	1 155	54 495	42 555	5	
Mississippi	54	732	563	523	533	591	605	17 842	12 726	18	
Missouri	95	2 082	1 772	1 999	1 625	1 762	1 704	72 089	55 935	5	
Montana	^{\$17} 146	^{\$135} 75	^{\$139} 75	^{\$139} 75	^{\$139} 75	^{\$139} 75	^{\$148} 797	^{\$2} 600	^{\$2} 600	58	
Nebraska	^{\$71} 27	481	419	407	376	477	415	12 992	10 795	19	
Nevada	27	1 151	923	776	785	967	1 164	44 814	33 269	4	
New Hampshire	6	29	23	18	22	26	29	1 022	768	7	
New Jersey	155	2 638	2 165	2 091	2 096	2 225	2 246	105 587	76 263	5	
New Mexico	^{\$14} 297	234	205	241	212	191	177	7 246	6 201	25	
New York	297	3 400	2 670	2 379	2 757	2 698	2 848	122 671	93 113	5	
North Carolina	99	1 292	1 024	946	1 065	1 132	955	35 860	26 164	14	
North Dakota	11	147	113	100	138	127	88	4 735	3 358	10	
Ohio	166	3 227	2 643	2 281	2 567	3 186	2 538	111 201	83 094	4	
Oklahoma	36	878	699	641	700	755	698	27 046	20 222	11	
Oregon	80	1 608	1 403	^{\$1} 521	^{\$1} 358	1 374	1 361	55 685	45 682	35	
Pennsylvania	121	1 813	1 503	1 486	1 514	1 502	1 507	60 815	46 707	5	
Rhode Island	12	309	254	240	253	255	267	12 086	8 727	3	
South Carolina	68	1 185	1 032	887	964	1 120	1 156	30 909	25 156	10	
South Dakota	26	184	147	106	145	175	161	4 403	3 254	27	
Tennessee	100	1 848	1 520	1 445	1 500	1 638	1 499	49 889	36 607	8	
Texas	300	6 552	5 583	5 474	5 459	5 669	5 732	188 084	148 221	4	
Utah	56	985	823	843	833	837	779	33 825	26 411	13	
Vermont	9	133	107	93	75	109	151	4 929	3 553	2	
Virginia	92	1 716	1 433	1 494	1 453	1 366	1 418	46 557	34 958	12	
Washington	170	1 598	1 385	1 510	1 325	1 307	1 400	51 559	41 862	14	
West Virginia	^{\$19} 64	107	81	79	98	78	70	3 768	3 056	22	
Wisconsin	64	930	750	640	738	797	825	36 046	26 969	5	
Wyoming	4	40	30	^{\$11} 30	^{\$17} 30	^{\$32} 30	59	1 062	624	39	

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
235910. STRUCTURAL STEEL ERECTION CONTRACTORS										
United States	8 009 223	7 216 973	4 863 623	2 496 799	792 249	229 387	120 938	1 016 268	1	2
Alabama	133 534	114 401	83 929	D	19 133	3 548	3 014	19 556	7	7
Alaska	15 856	D	11 091	D	D	^s 361	435	3 556	D	27
Arizona	107 410	98 917	64 047	35 613	8 493	3 067	S	9 902	16	S
Arkansas	22 182	21 071	15 452	5 619	1 111	315	318	3 656	17	28
California	1 196 309	1 111 817	717 044	415 303	84 492	31 676	13 831	133 966	3	3
Colorado	158 063	148 097	109 946	D	9 966	7 372	2 508	21 516	9	12
Connecticut	203 034	163 583	104 175	59 408	39 451	5 491	2 881	26 871	3	4
Delaware	53 758	44 813	25 880	18 934	8 945	1 147	765	4 171	5	3
District of Columbia	—	—	—	—	—	—	—	—	—	—
Florida	328 155	281 828	180 462	105 749	46 327	9 504	3 850	33 451	5	9
Georgia	236 993	211 103	115 051	D	25 890	4 203	4 044	32 747	7	8
Hawaii *	47 969	D	28 755	D	D	1 263	833	6 451	D	3
Idaho	34 889	30 251	24 583	D	^s 4 638	856	806	5 170	4	15
Illinois	397 479	358 378	215 854	146 589	39 101	8 667	6 145	46 145	6	8
Indiana	221 248	205 699	155 640	55 213	15 549	5 987	3 326	26 346	9	4
Iowa	79 087	66 795	45 572	21 224	12 292	1 285	1 090	8 941	19	23
Kansas	67 139	64 785	42 536	22 249	2 355	2 278	1 537	9 416	10	20
Kentucky	66 334	64 718	47 517	17 201	1 616	2 558	702	7 989	19	26
Louisiana	153 491	142 485	97 131	45 603	S	5 748	S	21 727	6	S
Maine	7 967	7 701	5 338	2 363	266	335	79	664	3	4
Maryland	111 018	99 840	68 058	31 782	11 178	3 136	1 735	14 565	4	9
Massachusetts	D	D	S	D	20 553	D	S	S	D	S
Michigan	332 149	275 586	174 876	108 466	56 563	8 973	4 583	47 476	10	11
Minnesota	151 967	137 934	100 888	37 501	14 032	3 710	2 930	24 392	5	5
Mississippi	53 564	50 829	39 868	10 961	2 735	1 443	996	8 429	15	13
Missouri	228 925	209 734	150 601	59 133	19 191	5 503	4 161	33 008	4	7
Montana	9 564	8 526	^s 6 251	2 275	^s 1 039	455	S	^s 1 143	35	S
Nebraska	44 490	43 895	37 244	6 652	595	1 155	229	3 109	18	31
Nevada	116 341	104 498	91 837	D	11 843	5 074	2 410	21 257	3	Z
New Hampshire	2 098	1 961	1 493	468	137	114	15	142	8	14
New Jersey	310 637	275 974	188 726	D	34 664	8 803	4 839	37 089	5	6
New Mexico	25 163	24 495	18 207	6 288	668	1 051	D	2 570	18	D
New York	417 023	362 668	246 391	118 885	54 355	11 667	4 931	46 061	6	7
North Carolina	119 439	113 214	68 490	47 021	6 225	3 370	1 717	15 692	14	11
North Dakota	22 341	D	14 754	7 841	D	1 176	254	2 801	D	Z
Ohio	410 911	356 918	240 974	122 226	53 994	11 853	5 633	48 903	4	5
Oklahoma	88 007	81 839	52 620	D	6 168	1 733	1 246	13 508	11	15
Oregon	200 100	188 527	149 756	44 342	11 573	7 420	2 938	25 348	22	29
Pennsylvania	189 425	166 093	119 147	49 769	23 332	6 317	2 559	24 696	6	8
Rhode Island	40 361	36 794	26 903	9 891	S	549	214	3 104	3	25
South Carolina	81 229	75 646	52 742	22 903	5 584	3 430	1 335	8 886	8	19
South Dakota	18 381	15 796	9 081	6 714	2 585	644	^s 466	3 810	29	58
Tennessee	215 822	197 488	110 540	^s 88 290	^s 18 334	7 255	4 333	34 550	29	31
Texas	570 140	516 583	343 311	174 585	53 557	12 713	11 177	80 402	3	6
Utah	123 857	114 387	62 686	51 701	9 470	4 933	2 237	17 662	8	4
Vermont	19 867	19 023	11 481	7 542	844	795	153	3 052	3	13
Virginia	146 531	136 387	107 485	37 988	10 144	4 807	2 354	21 525	9	15
Washington	163 638	150 274	105 095	45 764	13 364	6 467	2 118	16 504	10	8
West Virginia	14 721	13 513	8 502	5 011	1 209	341	D	1 709	9	D
Wisconsin	98 009	86 793	70 080	21 859	11 215	4 531	2 184	15 579	7	10
Wyoming	D	D	2 892	D	^s 251	D	—	—	D	—

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
235910, STRUCTURAL STEEL ERECTION CONTRACTORS			235910, STRUCTURAL STEEL ERECTION CONTRACTORS—Con.		
Number of establishments in business during year	4 238	3	Selected costs	3 289 048	3
Number of proprietors and working partners	S	S	Cost of materials, components, and supplies	2 391 249	3
Total number of employees	72 301	1	Cost of construction work subcontracted out to others	792 249	4
Number of construction workers in March	57 112	2	Cost of selected power, fuels, and lubricants	105 550	2
Number of construction workers in May	59 512	2	Cost of electricity	22 157	2
Number of construction workers in August	62 304	2	Cost of natural gas and manufactured gas	5 605	4
Number of construction workers in November	60 765	2	Cost of gasoline and diesel fuel	72 812	2
Average number of construction workers	59 923	2	Cost of on-highway use of gasoline and diesel fuel	56 730	2
Number of other employees in March	12 282	2	Cost of off-highway use of gasoline and diesel fuel	16 082	3
Number of other employees in May	12 344	2	Cost of all other fuels and lubricants	4 976	5
Number of other employees in August	12 500	2	Rental cost for machinery, equipment, and buildings	229 387	2
Number of other employees in November	12 386	2	Rental cost for machinery and equipment	175 569	2
Average number of other employees	12 378	2	Rental cost for buildings	53 817	4
Payroll, all employees	2 387 071	1	Selected purchased services	131 074	2
Payroll, construction workers	1 822 653	1	Purchased communication services	47 024	2
Payroll, other employees	564 417	1	Cost of repairs to buildings and other structures	10 819	6
First-quarter payroll, all employees	543 681	1	Cost of repairs to machinery and equipment	73 231	2
Fringe benefits, all employees	774 929	1	Value of construction work	8 009 223	2
Legally required expenditures	443 374	1	Value of construction work on government owned projects ..	2 273 616	2
Voluntary expenditures	331 555	1	Value of construction work on federally owned projects ..	542 934	3
Value of business done	8 152 672	2	Value of construction work on state and locally owned projects	1 730 682	3
Value of construction work	8 009 223	2	Value of construction work on privately owned projects	5 735 607	2
Value of construction work subcontracted in from others ..	5 843 252	2	Beginning-of-year gross book value of depreciable assets	949 541	2
Other business receipts	143 449	5	Capital expenditures, other than land	120 938	2
Net value of construction	7 216 973	1	Retirements and disposition of depreciable assets	54 212	2
Value added	4 863 623	1	End-of-year gross book value of depreciable assets	1 016 268	2
			Depreciation charges during year	129 242	2
			Number of establishments with inventories	1 119	6
			Value of construction work for establishments with inventories ..	3 181 871	2
			End of 1997, inventories of materials and supplies	55 468	2
			End of 1996, inventories of materials and supplies	56 974	2
			Number of establishments with no inventories	1 700	6
			Value of construction work for establishments with no inventories	3 177 795	3
			Number of establishments not reporting inventories	1 420	6
			Value of construction work for establishments not reporting inventories	1 649 557	3

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235910, STRUCTURAL STEEL ERECTION CONTRACTORS											
Total	4 238	72 301	2 387 071	8 152 672	8 009 223	7 216 973	4 863 623	2 496 799	792 249	1	1
Establishments with 1 to 4 employees	1 518	3 094	60 775	372 675	366 748	291 685	190 740	106 872	75 063	9	11
Establishments with 5 to 9 employees	1 078	7 212	170 965	676 052	671 396	598 218	382 776	220 097	73 178	8	12
Establishments with 10 to 19 employees	678	9 298	289 039	974 650	962 215	875 821	614 574	273 682	86 394	5	5
Establishments with 20 to 49 employees	632	19 140	655 309	2 109 115	2 088 485	1 919 783	1 322 003	618 410	168 702	4	4
Establishments with 50 to 99 employees	233	15 912	570 563	1 971 140	1 938 023	1 767 239	1 176 795	623 561	170 784	1	1
Establishments with 100 to 249 employees	85	12 422	434 191	1 445 952	D	1 269 676	829 143	D	D	1	Z
Establishments with 250 to 499 employees	12	D	D	D	D	D	D	D	D	D	D
Establishments with 500 to 999 employees	2	D	D	D	D	D	D	D	D	D	D
Establishments with 1,000 employees or more	—	—	—	—	—	—	—	—	—	—	—

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235910, STRUCTURAL STEEL ERECTION CONTRACTORS											
Total	4 238	72 301	2 387 071	8 152 672	8 009 223	7 216 973	4 863 623	2 496 799	792 249	1	1
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$100,000 to \$249,999	702	2 643	37 878	117 571	116 416	111 178	84 212	28 121	S	13	12
Establishments with value of business done \$250,000 to \$499,999	746	3 739	79 674	283 429	278 214	255 361	195 632	64 944	22 853	11	11
Establishments with value of business done \$500,000 to \$999,999	643	6 203	164 847	460 644	457 766	428 110	330 814	100 173	29 656	8	9
Establishments with value of business done \$1,000,000 to \$2,499,999	746	12 935	395 252	1 170 247	1 149 281	1 058 491	801 004	278 452	90 790	6	6
Establishments with value of business done \$2,500,000 to \$4,999,999	407	12 551	432 912	1 431 654	1 421 143	1 305 305	859 257	456 559	115 838	3	5
Establishments with value of business done \$5,000,000 to \$9,999,999	227	13 675	470 131	1 580 470	1 559 941	1 397 974	936 158	482 346	161 966	2	3
Establishments with value of business done \$10,000,000 or more	154	19 776	797 258	3 076 332	2 994 669	2 630 170	1 633 449	1 078 384	364 499	Z	1

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
235910, STRUCTURAL STEEL ERECTION CONTRACTORS								
Total	8 009 223	6 037 072	1 267 460	627 870	2	2	2	3
Building construction, total	5 751 932	4 640 151	860 677	251 103	2	2	2	4
Single-family houses, detached and attached	172 450	136 224	27 479	8 748	9	11	21	19
Apartment buildings, apartment type condominiums and cooperatives	91 627	66 850	9 806	S	12	11	20	S
Manufacturing and light industrial buildings	1 016 470	722 131	195 701	98 638	3	3	3	5
Manufacturing and light industrial warehouses	523 215	432 144	72 510	18 561	9	10	7	13
Hotels and motels	220 132	185 078	28 795	6 258	2	3	4	11
Office buildings	1 089 821	928 603	128 870	32 348	2	2	5	5
All other commercial buildings, nec	680 437	567 560	92 075	20 803	4	4	8	9
Commercial warehouses	558 231	497 068	46 083	15 080	6	7	8	15
Religious buildings	99 973	77 843	20 303	1 828	6	6	8	22
Educational buildings	571 758	449 983	110 781	10 994	4	4	6	16
Health care and institutional buildings	341 692	256 948	72 151	S	3	4	3	S
Public safety buildings	149 177	115 136	31 924	2 118	2	2	2	8
Amusement, social, and recreational buildings	78 357	58 492	16 958	2 907	3	2	7	27
All other nonresidential buildings	158 590	146 091	7 242	5 257	8	8	13	14
Nonbuilding construction, total	2 180 470	1 396 921	406 783	376 766	4	5	4	3
Highways, streets, and related work	219 842	155 596	42 520	21 726	6	5	11	24
Bridges, tunnels, and elevated highways	400 448	206 637	158 731	35 081	6	6	9	13
Sewers, water mains, and related facilities	80 530	63 339	11 740	5 451	15	14	25	28
Power plants	119 735	71 826	24 865	23 044	7	9	7	7
Blast furnaces, petroleum refineries, chemical complexes, etc	218 460	56 931	55 461	106 068	Z	1	Z	Z
Sewage and water treatment plants	133 294	103 185	25 853	4 256	4	4	6	6
Water storage facilities	365 827	297 311	12 117	56 399	19	23	23	15
Tank storage facilities other than water	458 961	295 850	57 658	105 452	4	4	7	5
Other nonbuilding construction, nec	183 373	146 245	17 839	19 289	6	7	6	2
Construction work, nsk	76 821	X	X	X	12	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
235910, STRUCTURAL STEEL ERECTION CONTRACTORS											
Total	4 238	72 301	2 387 071	8 009 223	X	7 216 973	4 863 623	792 249	1	2	4
Establishments not specializing ..	1 421	31 757	1 101 887	3 575 245	X	3 228 953	2 202 286	346 292	2	2	6
Establishments specializing 51 percent or more	2 817	40 544	1 285 184	4 433 978	3 740 127	3 988 020	2 661 337	445 957	2	2	5
Manufacturing and light industrial buildings											
All establishments specializing	451	6 065	187 321	568 051	481 734	514 711	387 230	53 339	5	5	15
Specialization 100 percent	326	2 904	90 016	261 477	261 477	237 495	181 236	23 981	8	7	8
Specialization 90 to 99 percent ...	27	806	23 664	58 774	55 159	56 196	46 736	2 578	9	7	9
Specialization 80 to 89 percent ...	17	256	8 670	40 336	32 902	30 652	18 283	9 684	24	37	71
Specialization 70 to 79 percent ...	32	889	27 578	82 837	59 661	74 119	60 076	8 719	14	17	47
Specialization 60 to 69 percent ...	38	718	19 605	58 851	36 607	55 336	41 398	3 515	20	17	22
Specialization 51 to 59 percent ...	11	492	17 788	65 775	35 928	60 913	39 500	4 862	12	9	4
Office buildings											
All establishments specializing	139	4 794	170 568	595 449	467 535	534 444	362 437	61 005	3	4	7
Specialization 100 percent	39	988	30 470	104 350	104 350	97 577	69 147	6 773	9	11	54
Specialization 90 to 99 percent ...	14	498	18 183	56 667	53 429	48 105	26 141	8 562	13	10	1
Specialization 80 to 89 percent ...	15	1 034	39 049	161 338	136 067	146 449	99 128	14 889	10	10	13
Specialization 70 to 79 percent ...	24	941	33 574	103 126	74 691	93 549	64 012	9 577	5	4	1
Specialization 60 to 69 percent ...	36	1 017	36 654	118 071	71 442	103 896	75 812	14 175	6	6	Z
Specialization 51 to 59 percent ...	11	316	12 638	51 897	27 556	44 867	28 197	7 030	4	1	Z
All other commercial buildings, nec											
All establishments specializing	310	3 829	107 027	322 346	269 617	296 187	212 195	26 159	9	8	19
Specialization 100 percent	163	1 790	46 831	139 380	139 380	129 856	103 911	9 524	15	14	32
Specialization 90 to 99 percent ...	¹⁶ 236	236	7 651	21 651	20 445	18 031	12 562	3 620	33	37	66
Specialization 80 to 89 percent ...	11	206	6 349	22 410	18 115	20 539	14 457	1 871	24	21	9
Specialization 70 to 79 percent ...	83	814	22 914	74 120	53 164	66 341	43 812	7 779	20	19	43
Specialization 60 to 69 percent ...	23	451	12 431	36 274	22 601	35 685	20 698	590	19	12	20
Specialization 51 to 59 percent ...	15	331	10 851	28 511	15 911	25 736	16 755	2 775	15	13	5
Commercial warehouses											
All establishments specializing	226	2 195	61 909	274 462	244 551	216 597	139 476	57 864	11	15	29
Specialization 100 percent	146	1 084	29 075	148 789	148 789	108 327	68 734	40 461	16	18	36
Specialization 90 to 99 percent ...	S	300	9 431	35 950	33 685	31 149	23 107	4 801	39	27	26
Specialization 80 to 89 percent ...	S	188	5 875	D	D	D	D	D	20	D	D
Specialization 70 to 79 percent ...	³² 477	477	12 726	38 063	28 481	34 507	25 694	3 556	25	22	16
Specialization 60 to 69 percent ...	¹⁶ D	D	D	S	S	S	S	S	D	S	S
Specialization 51 to 59 percent ...	2	D	D	D	D	D	D	D	D	D	D
Water storage facilities											
All establishments specializing	135	1 853	58 768	298 984	277 620	260 587	121 008	38 397	13	23	30
Specialization 100 percent	97	1 067	31 816	183 521	183 521	158 400	67 959	²⁵ 121	19	37	45
Specialization 90 to 99 percent ...	S	S	S	S	S	S	S	S	S	S	S
Specialization 80 to 89 percent ...	4	425	15 363	69 565	58 260	D	28 354	D	Z	Z	D
Specialization 70 to 79 percent ...	⁶ D	²⁷ D	²⁶⁰ D	⁸⁴⁰ D	⁶³⁰ D	⁸³³ D	⁴¹⁴ D	⁷ D	55	54	66
Specialization 60 to 69 percent ...	⁵ D	⁹¹ D	² 561	¹⁰ 670	⁶ 402	9 020	⁶ 341	¹ 650	41	42	65
Specialization 51 to 59 percent ...	5	48	1 687	9 262	4 772	D	3 234	D	Z	Z	D
Tank storage facilities other than water											
All establishments specializing	201	3 653	125 992	454 739	392 915	408 014	228 955	46 725	5	4	5
Specialization 100 percent	145	1 711	50 597	189 178	189 178	171 363	97 186	17 815	8	7	6
Specialization 90 to 99 percent ...	5	145	5 820	21 165	19 851	19 006	14 941	2 159	Z	Z	Z
Specialization 80 to 89 percent ...	S	1 278	D	179 030	143 700	159 768	81 036	19 262	3	4	11
Specialization 70 to 79 percent ...	¹⁸ D	D	1 725	D	D	D	D	D	D	D	D
Specialization 60 to 69 percent ...	14	358	13 435	39 972	24 144	36 565	22 727	3 407	28	21	5
Specialization 51 to 59 percent ...	2	D	D	D	D	D	D	D	D	D	D

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
235910, STRUCTURAL STEEL ERECTION CONTRACTORS		
Total	8 152 672	2
Heavy construction, total	30 773	6
Rental of construction machinery or equipment to others, with an operator	30 773	6
Special trade contractors, total	7 530 036	2
Curtain wall installation contractor	501 980	5
Glass and glazing contractor	149 500	6
Millwright and machine rigging contractor	92 483	6
Precast concrete installation contractor	430 931	6
Reinforcing steel contractor	1 370 903	3
Storage tanks, metal, erection contractor	1 021 264	7
Structural steel erection contractor	3 962 974	2
Other construction activities, nec	430 112	5
Other business activities secondary to construction activities, total	142 640	5
Manufacturing—products manufactured and sold to others, secondary to construction activities	43 218	13
Other business activities, secondary to construction activities, nec	11 293	26
Rental of construction machinery or equipment to others, without an operator, secondary to construction activities	31 816	5
Retail trade, secondary to construction activities	56 312	4
Kind of business activity, nsk	19 111	7

Table 10. Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
235910, STRUCTURAL STEEL ERECTION CONTRACTORS											
Total	4 238	72 301	2 387 071	8 009 223	X	7 216 973	4 863 623	792 249	1	2	4
Establishments not specializing	334	7 642	262 854	806 725	X	700 378	499 888	106 347	4	3	4
Establishments specializing 51 percent or more	3 904	64 659	2 124 216	7 202 498	6 583 070	6 516 595	4 363 736	685 903	2	2	4
Curtain wall installation contractor											
All establishments specializing	196	3 891	124 105	535 062	411 636	496 119	284 621	38 943	5	6	9
Specialization 100 percent	124	1 292	35 808	148 539	148 539	134 376	80 640	14 163	10	11	22
Specialization 90 to 99 percent	1	D	D	D	D	D	D	—	D	D	—
Specialization 80 to 89 percent	5	D	D	D	D	D	D	D	D	D	D
Specialization 70 to 79 percent	26	1 117	39 420	165 099	126 588	152 045	100 345	13 054	8	7	1
Specialization 60 to 69 percent	20	718	25 067	128 260	80 726	120 346	55 228	7 915	14	17	17
Specialization 51 to 59 percent	21	544	18 218	69 633	36 583	D	33 671	D	10	10	D
Precast concrete installation contractor											
All establishments specializing	210	2 968	96 128	333 931	316 124	310 777	214 969	23 154	8	7	12
Specialization 100 percent	154	2 222	71 212	256 244	256 244	239 214	171 933	17 030	11	9	14
Specialization 90 to 99 percent	11	341	8 616	31 557	29 276	27 815	20 392	3 742	11	11	23
Specialization 80 to 89 percent	11	147	5 118	13 680	11 488	D	9 698	D	27	23	D
Specialization 70 to 79 percent	²⁵ S	S	S	S	S	S	10 687	349	S	S	Z
Specialization 60 to 69 percent	⁸ S	³² S	⁹⁶² S	⁴ 148	² 136	D	² 259	D	58	69	D
Reinforcing steel contractor											
All establishments specializing	716	13 718	439 060	1 303 829	1 207 725	1 247 560	887 037	56 269	4	3	4
Specialization 100 percent	649	10 065	298 925	902 845	902 845	877 137	616 589	25 708	5	4	5
Specialization 90 to 99 percent	21	873	35 921	109 571	104 905	101 887	71 615	7 684	6	4	Z
Specialization 80 to 89 percent	12	626	23 750	72 563	63 471	70 704	43 618	¹ 859	12	13	56
Specialization 70 to 79 percent	8	497	18 960	56 710	41 287	D	36 026	D	5	6	D
Specialization 60 to 69 percent	15	1 263	47 473	125 180	75 992	112 701	94 688	12 479	6	4	1
Specialization 51 to 59 percent	10	395	14 031	36 959	19 226	D	24 501	D	19	26	D
Storage tanks, metal, erection contractor											
All establishments specializing	354	7 369	255 998	995 365	963 455	885 895	492 150	109 470	4	7	11
Specialization 100 percent	291	6 244	221 015	861 548	861 548	766 392	426 279	95 156	5	8	12
Specialization 90 to 99 percent	9	170	5 120	23 954	22 621	21 752	8 367	2 202	Z	Z	Z
Specialization 80 to 89 percent	14	430	12 746	43 253	35 120	39 966	22 518	3 287	Z	Z	Z
Specialization 70 to 79 percent	21	212	5 975	29 522	21 964	24 827	16 570	⁴ 695	27	31	48
Specialization 60 to 69 percent	¹⁵ S	276	10 143	32 632	19 781	28 896	16 337	3 736	21	15	5
Specialization 51 to 59 percent	4	38	1 000	4 456	2 421	4 062	2 080	394	Z	Z	Z
Structural steel erection contractor											
All establishments specializing	2 392	36 479	1 202 995	4 015 505	3 665 324	3 558 761	2 472 504	456 744	2	2	6
Specialization 100 percent	1 695	23 993	778 762	2 570 904	2 570 904	2 277 446	1 573 123	293 458	3	3	7
Specialization 90 to 99 percent	178	3 017	104 160	339 292	319 013	300 610	209 502	38 682	7	7	27
Specialization 80 to 89 percent	116	3 382	117 094	389 804	321 539	333 906	232 915	55 898	8	5	5
Specialization 70 to 79 percent	172	2 606	82 479	277 283	202 796	251 617	173 016	25 666	8	12	32
Specialization 60 to 69 percent	149	1 818	64 296	221 633	137 132	201 599	139 255	20 034	9	7	1
Specialization 51 to 59 percent	82	1 664	56 204	216 589	113 940	193 584	144 693	²³ 005	9	17	45

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
235910, STRUCTURAL STEEL ERECTION CONTRACTORS										
United States	8 009 223	2 894	5 228 791	2 275	1 424 370	1 298	1 356 061	2	2	4
Alabama	146 844	45	65 107	82	43 195	10	38 542	9	11	27
Alaska	21 459	12	D	13	D	1	D	24	D	D
Arizona	103 544	50	55 330	26	13 562	37	^{§34} 652	15	17	7
Arkansas	28 380	^{§31}	17 236	25	8 561	S	S	12	15	11
California	1 241 106	324	1 026 207	42	72 572	159	142 327	3	4	1
Colorado	119 974	51	86 159	22	12 726	^{§36}	^{§21} 089	12	14	8
Connecticut	210 917	25	175 475	25	17 939	34	17 504	3	3	4
Delaware	35 348	7	23 713	19	8 360	^{§4}	^{§3} 275	8	10	8
District of Columbia	31 813	—	—	20	31 813	—	—	1	—	1
Florida	289 118	105	219 001	73	29 034	75	41 082	5	7	5
Georgia	222 673	93	104 022	101	^{§64} 819	41	53 832	16	15	48
Hawaii *	56 774	14	45 659	9	8 805	S	S	8	9	Z
Idaho	49 111	29	28 052	34	14 776	6	6 283	11	15	21
Illinois	389 197	106	259 356	97	67 277	99	62 564	6	8	7
Indiana	232 573	80	143 045	73	52 966	13	36 562	8	13	7
Iowa	79 753	^{§37}	45 872	57	26 351	22	^{§7} 530	13	25	Z
Kansas	68 533	^{§44}	28 421	74	34 259	^{§18}	^{§5} 853	8	16	4
Kentucky	102 725	22	40 198	70	47 385	12	^{§15} 143	12	34	3
Louisiana	181 944	75	88 336	56	43 528	10	50 080	5	9	1
Maine	9 496	4	D	7	D	3	D	2	D	D
Maryland	114 327	39	46 518	48	37 292	10	30 517	3	7	5
Massachusetts	181 463	58	D	40	D	10	D	7	D	D
Michigan	350 641	83	252 558	59	22 467	44	75 616	12	17	4
Minnesota	125 470	46	103 477	^{§44}	20 863	11	1 130	5	6	3
Mississippi	79 686	^{§31}	29 939	51	29 254	^{§23}	20 492	13	22	16
Missouri	190 292	79	81 121	50	37 441	12	71 731	4	10	7
Montana	15 067	^{§16}	D	5	D	1	D	22	D	D
Nebraska	47 483	^{§51}	26 925	60	12 266	^{§19}	S	16	13	5
Nevada	165 405	25	D	36	D	2	D	2	D	D
New Hampshire	9 284	2	D	29	7 424	^{§4}	D	5	D	6
New Jersey	199 815	113	128 404	27	22 217	^{§41}	49 194	8	8	1
New Mexico	28 129	^{§11}	21 608	21	4 049	3	2 472	17	21	29
New York	472 192	206	282 580	59	83 101	90	106 511	5	7	3
North Carolina	167 947	89	92 296	74	63 688	10	^{§11} 963	11	21	9
North Dakota	15 984	9	D	16	D	1	D	19	D	D
Ohio	372 843	93	293 920	61	24 399	70	54 524	6	8	8
Oklahoma	68 609	32	64 857	24	3 385	4	366	13	13	13
Oregon	161 612	^{§55}	124 573	58	22 262	24	14 777	24	31	33
Pennsylvania	257 808	81	138 687	78	90 653	^{§39}	28 467	6	10	4
Rhode Island	S	6	3 455	7	1 891	^{§6}	10 362	S	12	2
South Carolina	89 404	47	38 072	89	34 289	^{§20}	^{§17} 043	6	14	4
South Dakota	22 213	^{§18}	^{§9} 678	^{§58}	10 055	^{§8}	^{§2} 480	26	48	31
Tennessee	162 776	55	95 032	45	23 819	45	43 925	14	22	5
Texas	500 561	151	345 962	42	25 515	143	129 084	4	4	5
Utah	79 348	49	64 250	19	9 623	7	5 475	11	14	12
Vermont	9 716	8	D	3	D	1	D	7	D	D
Virginia	143 468	74	91 044	69	37 653	18	14 771	8	13	3
Washington	184 702	137	120 205	60	48 029	13	16 467	10	12	23
West Virginia	35 220	^{§19}	14 014	44	21 206	—	—	5	8	6
Wisconsin	111 307	54	68 278	62	16 596	9	26 433	5	9	4
Wyoming	9 463	^{§3}	D	13	D	1	D	21	D	D

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

NUMBER OF CONSTRUCTION WORKERS: QUARTERLY PAY PERIOD

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS NOT REPORTING INVENTORIES

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH NO INVENTORIES

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY PERIOD

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

NUMBER OF PROPRIETORS AND WORKING PARTNERS

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **All other nonresidential buildings.** Includes nonresidential buildings that are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military nonbuilding such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

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Industry Series



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
235920	Glass & glazing contractors	4 714	35 823	1 051 551	3 830 894	3 735 033	2 123 533	1 826 144	47 440
179300	Glass & glazing work special trade contractors	4 472	34 740	1 024 415	3 740 086	3 647 269	2 058 778	1 797 171	46 196
179920	Special trade contractors, n.e.c. (pt)	242	1 084	27 136	S	S	S	28 973	1 245

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers	
235920, GLASS & GLAZING CONTRACTORS										
United States	4 714	35 823	23 207	22 119	22 485	24 015	24 211	1 051 551	623 662	1
Alabama	59	554	353	300	326	408	376	12 259	5 578	10
Alaska	6	S	S	S	S	S	S	S	S	S
Arizona	96	701	449	443	424	463	467	18 397	9 681	12
Arkansas	42	269	164	152	166	137	203	6 954	3 991	24
California	700	4 370	2 709	2 564	2 676	2 780	2 816	128 075	78 696	4
Colorado	84	808	613	589	584	643	638	21 613	15 798	3
Connecticut	69	486	302	278	348	321	261	17 863	9 672	13
Delaware	11	73	47	43	47	49	49	2 154	1 231	9
District of Columbia	4	49	32	30	33	33	33	1 397	782	Z
Florida	387	2 612	1 804	1 725	1 700	1 858	1 932	64 227	39 266	6
Georgia	148	1 193	833	792	790	916	834	30 550	19 070	7
Hawaii *	29	184	117	129	107	106	127	6 095	4 055	22
Idaho	22	140	90	83	85	95	98	3 044	1 818	3
Illinois	219	1 710	1 068	991	1 006	1 043	1 233	54 620	31 280	7
Indiana	90	885	599	526	552	685	632	25 917	16 812	7
Iowa	21	233	162	165	159	161	164	5 497	2 907	9
Kansas	32	269	176	194	173	171	167	8 095	4 533	3
Kentucky	46	455	346	340	344	350	350	11 366	8 180	6
Louisiana	58	396	292	300	283	288	297	9 065	6 141	11
Maine	17	119	80	72	81	83	83	3 306	1 992	1
Maryland	99	1 151	758	715	759	779	780	34 856	20 711	10
Massachusetts	97	771	479	454	469	518	475	24 767	14 401	6
Michigan	191	1 337	876	831	859	916	899	45 301	26 706	7
Minnesota	73	643	417	379	377	450	464	22 516	14 386	7
Mississippi	29	164	87	82	87	93	86	3 860	2 270	9
Missouri	77	601	395	378	385	404	412	20 900	13 203	6
Montana	*24	156	85	74	S	S	S	3 039	1 235	22
Nebraska	43	223	155	150	153	161	158	6 745	3 810	6
Nevada	58	755	571	631	595	531	526	27 255	19 154	1
New Hampshire	29	176	89	77	82	89	110	5 174	2 663	7
New Jersey	149	912	594	520	599	595	663	34 403	21 227	6
New Mexico	18	112	62	57	62	68	63	2 534	1 050	25
New York	326	1 966	1 231	1 111	1 146	1 346	1 319	59 848	33 293	5
North Carolina	126	1 076	626	663	602	637	603	28 687	14 532	10
North Dakota	10	80	58	59	59	56	56	1 827	1 154	Z
Ohio	152	1 069	667	627	640	694	706	29 749	17 354	12
Oklahoma	40	284	182	184	188	169	187	5 850	3 347	9
Oregon	64	326	206	197	193	209	224	10 404	6 397	11
Pennsylvania	145	1 403	854	854	807	882	874	44 616	27 203	5
Rhode Island	17	167	S	S	81	71	S	5 569	3 594	3
South Carolina	60	524	346	351	349	343	343	12 348	7 282	12
South Dakota	18	144	100	96	99	105	101	2 656	1 796	14
Tennessee	74	635	412	412	421	423	408	16 946	8 781	11
Texas	281	2 144	1 540	1 467	1 481	1 618	1 593	57 805	33 936	6
Utah	33	172	127	109	122	143	136	3 955	2 531	14
Vermont	21	*85	*56	*45	*59	*44	*76	*2 307	*1 618	45
Virginia	90	897	589	587	615	636	607	29 401	17 926	7
Washington	136	996	593	555	584	627	607	32 618	18 707	8
West Virginia	22	136	87	82	90	93	86	2 970	1 637	14
Wisconsin	65	1 156	598	562	549	624	655	40 100	19 113	3
Wyoming	7	S	S	S	S	S	S	S	S	S

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
235920, GLASS & GLAZING CONTRACTORS										
United States	3 830 894	3 735 033	2 123 533	1 826 144	95 862	75 476	47 440	455 252	1	4
Alabama	42 720	41 415	25 425	19 606	1 306	321	395	3 687	10	34
Alaska	S	S	S	S	S	S	D	D	S	D
Arizona	79 767	79 232	39 012	43 207	535	1 509	979	8 257	19	24
Arkansas	19 674	19 603	12 721	8 481	71	196	^s 378	2 828	16	65
California	497 014	486 383	286 900	223 996	10 631	11 966	3 993	47 192	3	10
Colorado	79 280	78 862	40 840	39 479	S	1 857	1 395	11 227	6	21
Connecticut	55 541	54 294	34 829	21 657	1 247	1 262	413	5 306	9	35
Delaware	9 327	9 279	4 319	5 582	49	204	D	763	8	D
District of Columbia	4 047	3 980	2 199	1 781	67	55	D	524	Z	Z
Florida	258 725	251 684	148 409	111 819	7 041	4 549	2 979	35 547	9	17
Georgia	123 148	119 825	60 240	62 432	3 323	1 612	1 261	10 593	5	30
Hawaii *	21 610	20 599	12 186	11 520	1 011	822	D	1 675	15	D
Idaho	16 054	15 824	6 132	D	230	242	69	1 289	1	Z
Illinois	177 972	175 226	98 657	82 009	2 746	3 538	2 061	28 006	5	21
Indiana	86 495	85 075	41 042	54 355	1 420	1 510	544	7 814	4	12
Iowa	20 771	20 346	11 840	9 367	425	292	266	2 990	9	15
Kansas	22 790	22 529	15 829	9 479	262	290	325	2 959	2	31
Kentucky	42 022	41 561	24 855	D	461	434	173	6 122	4	15
Louisiana	30 816	30 539	17 622	14 677	277	685	343	4 243	9	19
Maine	13 506	13 445	6 259	7 965	61	345	83	1 241	2	27
Maryland	134 039	127 844	60 993	70 799	6 195	2 040	1 407	10 966	18	17
Massachusetts	82 276	80 007	45 105	37 904	2 270	1 884	1 410	9 119	7	22
Michigan	171 108	165 339	101 080	81 804	5 769	4 170	2 472	19 842	4	11
Minnesota	78 464	77 755	43 933	37 337	709	1 271	1 647	10 614	4	7
Mississippi	13 565	D	7 059	D	D	194	143	2 027	D	24
Missouri	78 188	74 515	45 902	31 286	3 673	1 550	774	6 701	5	31
Montana	16 789	16 529	9 386	9 075	S	497	195	2 342	7	13
Nebraska	25 293	D	10 171	D	D	459	343	2 230	D	30
Nevada	106 961	105 631	62 027	44 157	1 330	1 742	582	5 734	2	13
New Hampshire	19 662	19 433	9 842	10 241	228	609	297	2 771	7	16
New Jersey	126 225	121 396	67 527	57 377	4 829	1 630	2 014	15 378	6	9
New Mexico	8 344	8 275	4 582	D	69	168	110	1 504	13	11
New York	241 316	232 741	135 093	107 585	8 574	5 686	3 213	29 620	5	12
North Carolina	98 119	90 735	49 460	49 204	7 384	2 218	2 361	13 275	11	35
North Dakota	9 575	9 226	3 667	5 879	349	224	150	791	Z	Z
Ohio	108 220	104 333	62 374	49 904	^s 3 886	2 469	1 664	19 618	12	33
Oklahoma	28 791	28 613	13 583	17 956	178	560	^s 861	4 094	12	44
Oregon	35 949	35 853	22 203	16 234	96	819	520	4 393	7	24
Pennsylvania	152 757	148 754	81 570	77 971	4 003	3 249	1 494	20 176	5	6
Rhode Island	26 484	D	14 814	11 614	D	S	243	4 564	D	15
South Carolina	44 243	43 607	27 709	19 512	636	622	590	4 393	10	35
South Dakota	7 362	7 311	5 378	3 873	51	115	128	1 363	10	4
Tennessee	56 765	56 310	31 170	27 280	455	648	535	7 345	8	12
Texas	192 820	190 918	106 514	90 481	1 902	3 040	1 716	26 924	6	9
Utah	18 181	17 972	7 950	10 310	210	237	289	1 958	13	20
Vermont	^s 8 326	^s 8 185	^s 4 052	^s 4 338	^s 141	91	^s 66	^s 1 015	51	47
Virginia	105 347	100 398	59 899	46 987	^s 4 949	2 033	1 258	10 751	4	25
Washington	118 556	116 685	57 846	62 161	1 870	2 830	1 387	10 211	8	11
West Virginia	12 303	12 230	9 190	4 364	73	141	94	2 337	17	20
Wisconsin	96 860	94 110	70 376	53 787	2 750	2 207	3 519	20 501	3	2
Wyoming	S	S	S	D	S	S	D	D	S	D

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
235920, GLASS & GLAZING CONTRACTORS			235920, GLASS & GLAZING CONTRACTORS—Con.		
Number of establishments in business during year	4 714	2	Selected costs—Con.		
Number of proprietors and working partners	1 523	6	Cost of selected power, fuels, and lubricants	50 536	2
Total number of employees	35 823	1	Cost of electricity	13 102	4
Number of construction workers in March	22 119	1	Cost of natural gas and manufactured gas	3 627	10
Number of construction workers in May	22 485	1	Cost of gasoline and diesel fuel	32 063	2
Number of construction workers in August	24 015	1	Cost of on-highway use of gasoline and diesel fuel	29 001	2
Number of construction workers in November	24 211	2	Cost of off-highway use of gasoline and diesel fuel	3 062	8
Average number of construction workers	23 207	1	Cost of all other fuels and lubricants	1 744	10
Number of other employees in March	12 587	2	Rental cost for machinery, equipment, and buildings	75 476	2
Number of other employees in May	12 559	2	Rental cost for machinery and equipment	22 041	3
Number of other employees in August	12 642	2	Rental cost for buildings	53 434	3
Number of other employees in November	12 676	2	Selected purchased services	50 018	4
Average number of other employees	12 616	2	Purchased communication services	26 885	3
Payroll, all employees	1 051 551	1	Cost of repairs to buildings and other structures	4 462	4
Payroll, construction workers	623 662	1	Cost of repairs to machinery and equipment	18 671	8
Payroll, other employees	427 889	1	Value of construction work	3 830 894	1
First-quarter payroll, all employees	235 366	2	Value of construction work on government owned projects	800 957	3
Fringe benefits, all employees	235 902	1	Value of construction work on federally owned projects	172 812	4
Legally required expenditures	148 006	2	Value of construction work on state and locally owned projects	628 146	3
Voluntary expenditures	87 897	2	Value of construction work on privately owned projects	3 029 937	1
Value of business done	4 045 539	1	Beginning-of-year gross book value of depreciable assets	422 005	3
Value of construction work	3 830 894	1	Capital expenditures, other than land	47 440	4
Value of construction work subcontracted in from others	2 421 942	2	Retirements and disposition of depreciable assets	14 193	6
Other business receipts	214 645	4	End-of-year gross book value of depreciable assets	455 252	3
Net value of construction	3 735 033	1	Depreciation charges during year	43 919	3
Value added	2 123 533	1	Number of establishments with inventories	2 621	3
Selected costs	1 922 006	2	Value of construction work for establishments with inventories	2 680 704	2
Cost of materials, components, and supplies	1 775 608	2	End of 1997, inventories of materials and supplies	102 263	3
Cost of construction work subcontracted out to others	95 862	5	End of 1996, inventories of materials and supplies	102 593	3
			Number of establishments with no inventories	710	9
			Value of construction work for establishments with no inventories	500 201	6
			Number of establishments not reporting inventories	1 383	5
			Value of construction work for establishments not reporting inventories	649 989	5

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235920, GLASS & GLAZING CONTRACTORS											
Total	4 714	35 823	1 051 551	4 045 539	3 830 894	3 735 033	2 123 533	1 826 144	95 862	1	1
Establishments with 1 to 4 employees	S	4 948	98 312	495 082	476 940	462 661	270 026	210 777	14 279	5	5
Establishments with 5 to 9 employees	1 131	7 493	193 874	725 482	682 191	669 376	395 036	317 631	12 815	5	5
Establishments with 10 to 19 employees	770	10 361	304 553	1 171 310	1 105 231	1 080 484	607 442	539 121	24 747	4	4
Establishments with 20 to 49 employees	290	8 285	284 903	1 056 101	1 009 335	979 715	547 134	479 347	29 620	3	3
Establishments with 50 to 99 employees	46	3 062	110 323	387 925	377 372	370 376	193 624	187 305	6 996	Z	Z
Establishments with 100 to 249 employees	13	1 675	59 586	209 639	179 825	172 421	110 272	91 963	7 404	Z	Z
Establishments with 250 to 499 employees	—	—	—	—	—	—	—	—	—	—	—
Establishments with 500 to 999 employees	—	—	—	—	—	—	—	—	—	—	—
Establishments with 1,000 employees or more	—	—	—	—	—	—	—	—	—	—	—

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235920, GLASS & GLAZING CONTRACTORS											
Total	4 714	35 823	1 051 551	4 045 539	3 830 894	3 735 033	2 123 533	1 826 144	95 862	1	1
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	S	S	S	S	S	S	S	S	\$411	S	S
Establishments with value of business done \$100,000 to \$249,999	1 135	2 563	44 399	191 270	184 700	180 335	106 151	80 754	S	8	7
Establishments with value of business done \$250,000 to \$499,999	978	3 986	83 591	343 874	327 419	320 772	195 962	141 265	6 647	7	7
Establishments with value of business done \$500,000 to \$999,999	857	6 515	167 432	608 937	563 390	550 979	334 833	261 694	12 411	5	5
Establishments with value of business done \$1,000,000 to \$2,499,999	738	10 136	300 790	1 148 661	1 086 845	1 062 677	590 050	534 443	24 168	4	4
Establishments with value of business done \$2,500,000 to \$4,999,999	225	5 887	206 292	765 272	733 543	718 285	400 246	349 768	15 258	3	3
Establishments with value of business done \$5,000,000 to \$9,999,999	81	3 645	137 853	546 647	529 706	515 537	266 051	266 426	14 169	3	4
Establishments with value of business done \$10,000,000 or more	26	2 492	102 403	406 973	373 619	355 239	208 810	179 783	18 380	Z	Z

Table 7. **Value of Construction Work for Establishments With Payroll by Type of Construction: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
235920, GLASS & GLAZING CONTRACTORS								
Total	3 830 894	2 262 590	780 162	650 980	1	2	3	3
Building construction, total	3 688 454	2 259 557	778 722	650 175	1	2	3	3
Single-family houses, detached and attached	678 932	376 852	140 057	162 022	5	7	6	6
Single-family houses, detached	565 716	322 682	117 751	125 282	6	9	7	6
Single-family houses, attached	113 216	54 170	22 306	36 740	6	6	10	10
Apartment buildings, apartment type condominiums and cooperatives	138 712	55 927	26 857	55 929	6	10	10	8
Manufacturing and light industrial buildings	190 480	130 361	32 488	27 631	5	6	6	8
Manufacturing and light industrial warehouses	114 500	79 086	18 200	17 214	7	7	13	21
Hotels and motels	182 358	118 992	34 112	29 254	3	4	7	5
Office buildings	899 014	607 332	180 390	111 293	2	3	3	4
All other commercial buildings, nec	638 604	376 974	123 567	138 062	3	4	4	8
Commercial warehouses	79 573	55 959	13 419	10 194	7	6	12	15
Religious buildings	94 643	50 859	26 444	17 340	5	7	11	7
Educational buildings	347 184	203 681	107 479	36 024	5	4	11	7
Health care and institutional buildings	191 474	118 101	50 741	22 631	4	4	6	5
Public safety buildings	93 221	64 315	16 133	12 773	5	6	8	7
All other nonresidential buildings	39 760	21 118	8 835	9 808	12	12	21	21
Nonbuilding construction, total	5 279	3 034	1 439	806	25	39	9	4
Other nonbuilding construction, nec	5 279	3 034	1 439	806	25	39	9	4
Construction work, nsk	137 162	X	X	X	7	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
235920, GLASS & GLAZING CONTRACTORS											
Total	4 714	35 823	1 051 551	3 830 894	X	3 735 033	2 123 533	95 862	1	1	5
Establishments not specializing ..	1 930	17 694	530 970	1 871 041	X	1 828 050	1 062 564	42 991	3	2	5
Establishments specializing 51 percent or more	2 784	18 130	520 581	1 959 854	1 587 278	1 906 983	1 060 970	52 871	3	3	9
Single-family houses, detached and attached											
All establishments specializing	1 162	5 054	120 307	478 495	406 123	469 503	269 093	8 992	6	7	23
Specialization 100 percent	465	1 480	37 575	172 926	172 926	168 963	89 654	³ 963	13	15	49
Specialization 90 to 99 percent ...	S	698	15 815	71 107	66 515	69 847	43 219	¹ 260	15	16	52
Specialization 80 to 89 percent ...	169	799	17 714	69 577	57 693	68 029	41 629	1 548	11	12	26
Specialization 70 to 79 percent ...	204	1 012	23 536	75 793	55 717	75 089	37 885	⁷ 04	17	21	42
Specialization 60 to 69 percent ...	123	727	16 521	65 659	40 200	64 816	38 072	843	18	17	17
Specialization 51 to 59 percent ...	55	338	9 145	23 434	13 072	22 760	18 635	674	28	19	29
Office buildings											
All establishments specializing	309	4 427	157 183	558 658	423 478	534 450	297 904	24 207	5	4	12
Specialization 100 percent	81	1 000	35 673	125 429	125 429	115 731	66 341	9 698	12	10	25
Specialization 90 to 99 percent ...	14	158	6 640	20 640	18 576	19 893	9 695	747	17	17	8
Specialization 80 to 89 percent ...	20	616	20 815	66 850	54 560	65 934	36 506	916	10	7	Z
Specialization 70 to 79 percent ...	96	1 275	46 244	168 215	120 593	162 852	87 671	5 363	12	9	25
Specialization 60 to 69 percent ...	77	965	31 983	119 793	73 001	114 548	67 221	5 245	10	6	2
Specialization 51 to 59 percent ...	22	413	15 829	57 731	31 319	55 493	30 469	2 238	12	15	9
All other commercial buildings, nec											
All establishments specializing	599	3 803	96 290	356 844	283 358	351 612	195 786	5 232	8	7	33
Specialization 100 percent	S	864	19 605	84 541	84 541	82 865	52 316	S	18	15	S
Specialization 90 to 99 percent ...	49	455	11 879	51 744	48 545	51 469	27 400	276	17	16	19
Specialization 80 to 89 percent ...	46	546	15 042	46 378	37 638	45 701	19 472	⁶ 76	22	18	54
Specialization 70 to 79 percent ...	175	864	23 728	87 008	62 462	86 596	46 878	411	17	16	29
Specialization 60 to 69 percent ...	87	600	13 340	42 018	25 560	41 686	21 732	³ 32	22	21	40
Specialization 51 to 59 percent ...	62	474	12 697	45 154	24 612	43 294	27 988	S	24	25	S
Educational buildings											
All establishments specializing	85	829	28 506	127 291	96 383	122 762	51 316	4 529	14	15	15
Specialization 100 percent	¹ 8	³ 6	¹ 189	⁶ 282	⁶ 282	⁶ 027	¹ 886	S	51	52	S
Specialization 90 to 99 percent ...	22	223	7 393	³ 6 964	³ 4 050	³ 5 474	1 490	36	36	40	34
Specialization 80 to 89 percent ...	S	S	2 632	12 532	10 257	11 852	S	681	S	23	4
Specialization 70 to 79 percent ...	13	211	6 911	28 705	20 833	28 491	9 512	² 15	20	22	59
Specialization 60 to 69 percent ...	8	118	4 699	21 699	13 251	20 987	11 156	712	26	29	10
Specialization 51 to 59 percent ...	11	158	5 682	21 108	11 711	19 931	8 700	1 177	27	33	33

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
235920, GLASS & GLAZING CONTRACTORS		
Total	4 045 539	1
Special trade contractors, total	3 729 940	1
Curtain wall installation contractor	209 933	5
Glass and glazing contractor	3 438 773	1
Tinting glass contractor	81 234	14
Other construction activities, nec	74 161	7
Other business activities secondary to construction activities, total	212 980	4
Other business activities, secondary to construction activities, nec	67 624	7
Retail trade, secondary to construction activities	145 356	5
Kind of business activity, nsk	28 458	23

Table 10. **Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
235920, GLASS & GLAZING CONTRACTORS											
Total	4 714	35 823	1 051 551	3 830 894	X	3 735 033	2 123 533	95 862	1	1	5
Establishments not specializing	90	1 499	50 388	140 806	X	137 433	95 579	3 373	7	7	3
Establishments specializing 51 percent or more	4 623	34 325	1 001 163	3 690 089	3 350 872	3 597 600	2 027 954	92 489	1	1	6
Glass and glazing contractor											
All establishments specializing	4 295	33 026	968 142	3 580 317	3 246 958	3 490 920	1 952 137	89 397	1	1	6
Specialization 100 percent	3 140	20 388	583 326	2 260 049	2 260 049	2 206 947	1 198 380	53 101	2	2	9
Specialization 90 to 99 percent	223	2 946	88 807	326 194	305 996	316 916	170 969	9 278	6	5	9
Specialization 80 to 89 percent	240	2 561	73 896	259 711	215 613	254 850	145 821	4 861	8	7	5
Specialization 70 to 79 percent	233	2 344	73 306	266 117	194 413	256 511	144 406	9 606	7	5	7
Specialization 60 to 69 percent	277	2 689	74 540	237 530	148 091	230 309	147 895	7 220	9	11	15
Specialization 51 to 59 percent	183	2 097	74 268	230 716	122 795	225 386	144 665	5 330	8	6	26
Tinting glass contractor											
All establishments specializing	215	1 026	26 109	82 832	76 974	80 377	59 337	S	15	14	S
Specialization 100 percent	148	718	17 368	58 173	58 173	56 430	37 892	S	20	18	S
Specialization 90 to 99 percent	^s 17	62	1 734	S	S	D	S	D	30	S	D
Specialization 80 to 89 percent	^s 3	14	334	646	549	D	430	D	34	34	D
Specialization 70 to 79 percent	^s 14	108	3 250	9 508	S	S	7 684	^s 276	39	30	55
Specialization 51 to 59 percent	33	124	3 423	5 965	3 088	5 965	7 587	—	27	29	—

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
235920, GLASS & GLAZING CONTRACTORS										
United States	3 830 894	2 886	2 790 953	867	171 160	1 819	868 781	1	2	5
Alabama	35 987	34	25 849	18	973	^{s25}	^{s9} 166	11	12	25
Alaska	D	2	D	—	—	3	D	D	D	—
Arizona	79 424	60	73 883	^{s11}	^{s330}	36	5 211	19	21	71
Arkansas	19 563	^{s25}	15 123	3	135	^{s17}	4 305	16	21	Z
California	495 696	382	336 530	11	5 433	318	153 733	3	4	1
Colorado	79 402	60	68 026	^{s5}	123	25	11 254	6	5	32
Connecticut	55 235	58	45 547	^{s17}	839	11	8 849	9	11	11
Delaware	11 554	8	7 671	12	2 586	3	1 298	7	8	13
District of Columbia	19 466	2	D	40	17 219	2	D	17	D	20
Florida	267 288	241	217 911	38	8 585	146	40 792	9	11	25
Georgia	116 380	90	81 711	24	^{s2} 255	58	32 414	4	7	44
Hawaii *	20 716	^{s17}	12 639	4	D	^{s11}	D	15	21	D
Idaho	16 340	14	12 926	3	806	^{s8}	2 608	1	6	Z
Illinois	184 178	156	139 960	53	8 473	63	35 745	5	8	10
Indiana	84 936	73	63 804	15	2 359	17	18 773	4	6	5
Iowa	22 035	16	16 573	16	3 228	5	2 234	7	11	17
Kansas	30 856	16	9 481	23	11 097	16	10 278	3	10	5
Kentucky	40 005	38	31 846	^{s18}	2 342	^{s9}	5 817	4	10	15
Louisiana	32 122	21	18 021	7	^{s1} 306	37	12 795	9	16	41
Maine	11 330	^{s8}	6 666	3	287	10	4 377	5	17	24
Maryland	116 828	64	90 876	27	5 343	35	20 609	20	26	7
Massachusetts	78 828	59	49 779	37	1 484	38	27 565	7	9	8
Michigan	166 598	158	144 172	5	571	33	21 855	4	5	20
Minnesota	80 456	48	64 815	12	2 017	^{s25}	13 624	4	5	2
Mississippi	13 293	12	6 716	6	782	17	5 795	10	12	Z
Missouri	70 642	51	53 780	22	4 655	26	12 208	6	8	26
Montana	16 789	8	5 097	—	—	^{s16}	11 692	8	3	—
Nebraska	23 984	18	21 452	1	D	26	D	11	12	D
Nevada	109 029	39	93 010	12	2 482	19	13 538	2	4	16
New Hampshire	21 850	26	15 632	38	4 979	3	1 239	9	8	32
New Jersey	128 613	88	82 319	40	10 004	61	36 290	5	10	18
New Mexico	8 607	4	5 318	^{s10}	^{s280}	^{s14}	3 009	13	Z	56
New York	244 957	177	174 687	34	6 434	149	63 836	5	8	15
North Carolina	105 492	83	80 812	42	10 245	43	14 435	11	14	34
North Dakota	8 443	7	7 930	1	D	3	D	Z	Z	D
Ohio	116 049	88	76 922	30	9 293	65	29 834	11	13	16
Oklahoma	27 704	38	26 896	4	D	2	D	12	13	D
Oregon	39 049	41	29 087	^{s25}	^{s4} 043	23	5 919	9	11	51
Pennsylvania	147 052	69	98 933	32	6 108	70	42 011	5	5	18
Rhode Island	28 230	8	4 984	^{s10}	S	9	21 134	6	12	S
South Carolina	44 378	37	22 728	^{s30}	3 028	24	18 621	10	21	19
South Dakota	7 045	13	5 134	^{s16}	722	^{s5}	1 189	5	8	21
Tennessee	55 227	33	30 465	12	2 008	41	22 754	8	9	1
Texas	191 669	153	163 576	8	780	128	27 313	6	7	31
Utah	18 641	17	14 995	S	S	16	3 155	13	21	S
Vermont	10 330	^{s15}	^{s6} 482	^{s15}	2 547	6	1 301	37	59	2
Virginia	104 399	61	66 979	31	10 852	29	26 568	4	6	12
Washington	114 498	92	82 065	14	2 660	44	29 773	8	11	3
West Virginia	13 456	17	10 664	18	2 058	5	734	16	18	39
Wisconsin	87 291	44	66 487	^{s4}	332	^{s21}	20 471	3	3	35
Wyoming	D	^{s2}	D	2	D	5	1 049	D	D	D

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

NUMBER OF CONSTRUCTION WORKERS: QUARTERLY PAY PERIOD

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS NOT REPORTING INVENTORIES

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH NO INVENTORIES

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY PERIOD

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

NUMBER OF PROPRIETORS AND WORKING PARTNERS

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e, office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **All other nonresidential buildings.** Includes nonresidential buildings that are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military non-building such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwriting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwriting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Excavation Contractors

1997

Issued January 2000

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1997 Economic Census

Construction

Industry Series



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U.S. Department of Commerce
Economics and Statistics Administration
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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
235930	Excavation contractors	18 229	116 237	3 353 874	13 746 608	12 216 146	9 086 184	3 576 930	994 656
179400	Excavation work special trade contractors	18 229	116 237	3 353 874	13 746 608	12 216 146	9 086 184	3 576 930	994 656

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers	
235930, EXCAVATION CONTRACTORS										
United States	18 229	116 237	92 830	80 039	94 835	101 640	94 806	3 353 874	2 525 857	2
Alabama	242	1 343	1 049	971	1 004	1 189	1 030	29 711	21 749	14
Alaska	98	474	399	237	462	565	333	18 901	15 592	18
Arizona	296	1 824	1 400	1 244	1 217	1 585	1 554	52 441	35 406	13
Arkansas	200	1 281	D	D	D	1 134	D	26 541	19 635	23
California	1 000	8 168	6 585	5 886	6 636	7 164	6 655	293 194	230 421	6
Colorado	542	3 653	3 002	2 678	3 005	3 352	2 975	107 857	81 057	8
Connecticut	389	1 867	1 430	1 182	1 524	1 552	1 459	56 649	42 313	10
Delaware	49	255	D	156	231	D	D	D	5 041	19
District of Columbia	3	D	D	D	D	D	D	D	D	D
Florida	591	4 324	3 351	3 224	3 268	3 488	3 425	102 392	74 612	7
Georgia	545	4 397	3 736	3 599	3 679	3 974	3 693	115 262	84 110	14
Hawaii *	24	127	86	94	111	77	62	4 991	3 466	24
Idaho	175	D	370	298	392	388	402	D	9 398	D
Illinois	744	4 540	3 538	2 826	4 000	3 770	3 555	172 735	127 652	5
Indiana	542	3 414	2 786	2 340	2 972	3 126	2 695	95 027	77 776	6
Iowa	244	1 363	1 085	839	1 116	1 201	1 185	35 952	25 600	20
Kansas	126	709	565	505	535	618	600	23 599	15 391	9
Kentucky	272	1 401	1 098	904	1 091	1 202	1 196	33 051	24 135	10
Louisiana	156	1 108	886	785	895	940	925	24 317	18 722	30
Maine	324	1 420	1 182	828	1 218	1 443	1 239	32 117	26 015	9
Maryland	317	2 762	2 330	2 113	2 396	2 414	2 398	80 436	63 565	5
Massachusetts	615	3 907	2 955	2 322	3 022	3 178	3 300	125 617	84 960	9
Michigan	927	5 042	4 098	3 324	4 524	4 551	3 993	162 206	128 389	6
Minnesota	517	2 765	2 191	1 534	2 304	2 660	2 266	84 780	64 688	6
Mississippi	95	D	D	D	D	D	D	D	D	D
Missouri	413	2 532	1 946	1 524	2 028	2 273	1 961	71 751	51 418	10
Montana	107	266	238	215	235	236	267	D	D	22
Nebraska	93	622	519	D	585	593	D	D	D	28
Nevada	165	1 736	1 443	1 398	1 450	1 515	1 408	61 510	48 962	6
New Hampshire	271	1 168	932	758	908	1 163	901	29 057	23 651	14
New Jersey	591	3 809	2 937	2 432	3 051	3 176	3 089	121 219	92 925	5
New Mexico	69	676	545	462	572	590	555	14 600	9 637	12
New York	756	3 883	3 027	2 354	3 115	3 372	3 266	124 260	91 459	4
North Carolina	704	D	D	D	D	D	D	D	D	D
North Dakota	*67	D	D	D	D	D	D	D	D	D
Ohio	840	5 636	4 413	3 798	4 605	4 855	4 395	169 649	129 346	5
Oklahoma	137	704	583	564	619	587	564	14 932	10 570	10
Oregon	362	2 121	1 729	1 567	1 687	1 911	1 749	57 720	45 078	11
Pennsylvania	970	6 946	5 477	4 772	5 626	6 027	5 481	193 954	145 734	9
Rhode Island	61	381	310	222	312	359	346	11 613	9 530	14
South Carolina	289	1 872	1 581	1 463	1 497	1 679	1 686	45 502	33 654	16
South Dakota	60	D	D	D	D	181	D	5 477	4 277	D
Tennessee	401	2 105	1 648	1 484	1 597	1 834	1 677	53 766	39 077	8
Texas	688	6 876	5 423	5 101	5 306	5 629	5 655	184 479	128 266	10
Utah	283	2 001	1 755	1 355	1 808	2 010	1 847	50 975	43 228	12
Vermont	175	737	D	D	606	D	637	16 091	12 897	17
Virginia	470	3 471	2 794	2 742	2 806	2 842	2 785	82 295	62 094	10
Washington	454	2 277	1 798	1 513	1 765	2 079	1 836	71 758	56 066	5
West Virginia	165	843	692	630	696	724	717	18 610	14 888	18
Wisconsin	541	3 165	2 394	1 911	2 572	2 661	2 431	103 755	80 052	8
Wyoming	66	339	D	D	D	D	D	6 448	D	7

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
235930, EXCAVATION CONTRACTORS										
United States	13 746 608	12 216 146	9 086 184	3 576 930	1 530 462	601 267	994 656	7 913 730	2	3
Alabama	126 643	D	83 353	D	D	7 806	13 370	97 655	D	10
Alaska	71 946	64 827	43 288	24 549	7 119	2 365	5 909	78 103	23	37
Arizona	198 914	180 891	131 355	D	18 023	12 692	13 700	69 909	10	25
Arkansas	D	D	72 951	D	10 941	3 160	9 629	73 557	D	30
California	1 256 995	1 118 720	851 410	282 199	138 275	75 135	63 787	426 728	5	14
Colorado	388 039	357 841	284 246	89 207	30 198	26 464	28 922	214 821	9	25
Connecticut	206 809	187 454	148 173	46 126	19 355	5 673	15 665	140 404	9	13
Delaware	D	D	D	D	D	D	3 782	22 805	D	8
District of Columbia	D	D	D	D	D	D	D	D	D	D
Florida	661 339	540 064	346 609	D	*121 276	24 432	36 437	303 133	17	10
Georgia	564 934	495 569	416 370	109 000	69 365	13 010	38 042	274 134	14	19
Hawaii *	13 361	D	8 082	D	D	1 309	D	12 508	D	D
Idaho	D	D	40 089	D	3 577	2 903	3 972	40 311	D	32
Illinois	604 552	526 419	416 114	130 469	78 133	20 591	38 705	422 329	7	7
Indiana	390 200	349 786	264 010	99 682	40 414	9 427	28 451	221 504	6	9
Iowa	151 623	137 983	112 651	37 539	13 640	4 480	8 931	121 781	20	28
Kansas	82 463	74 909	57 440	D	7 554	2 055	5 780	56 216	8	12
Kentucky	180 717	163 576	106 908	57 408	17 141	10 559	S	S	9	S
Louisiana	102 893	D	72 625	D	D	3 948	*13 925	*80 178	D	63
Maine	131 716	119 466	95 027	32 367	12 250	3 988	13 000	118 247	8	12
Maryland	262 309	226 275	146 288	D	36 034	15 458	17 495	193 549	5	9
Massachusetts	467 683	419 481	302 980	136 203	48 202	21 921	30 604	275 416	8	11
Michigan	615 076	567 180	437 089	147 771	47 896	21 823	57 216	435 377	7	9
Minnesota	350 355	310 818	246 383	D	39 537	19 875	29 971	213 365	5	13
Mississippi	D	D	D	28 379	D	3 177	5 463	36 322	D	17
Missouri	260 700	233 031	165 020	D	27 669	10 552	19 918	186 544	14	17
Montana	29 427	27 960	22 111	D	1 467	S	861	17 678	24	29
Nebraska	D	D	D	D	D	2 387	5 447	39 625	D	17
Nevada	213 856	186 783	150 611	D	27 073	15 031	14 701	129 628	5	9
New Hampshire	121 080	110 775	84 838	28 977	10 305	3 594	9 262	61 543	15	17
New Jersey	480 177	420 735	307 283	D	59 442	20 369	30 333	278 375	5	9
New Mexico	76 194	72 034	47 191	D	4 161	5 371	4 072	42 115	10	10
New York	497 840	431 375	313 928	139 442	66 465	16 600	36 132	286 176	4	10
North Carolina	D	D	224 167	D	D	21 544	36 531	226 081	D	16
North Dakota	50 796	D	D	D	D	D	1 557	10 372	D	34
Ohio	734 646	631 697	432 123	219 786	102 950	36 226	51 582	394 230	8	13
Oklahoma	70 932	65 351	48 283	D	5 581	4 008	5 268	47 812	13	16
Oregon	245 939	218 820	144 861	76 215	27 119	11 559	18 506	103 654	9	17
Pennsylvania	758 395	674 017	542 461	185 787	84 377	24 674	59 836	478 080	9	10
Rhode Island	D	D	D	D	D	S	S	25 871	D	S
South Carolina	184 747	159 673	114 598	D	25 074	4 441	14 643	116 678	12	13
South Dakota	D	D	17 323	D	D	354	1 491	12 730	D	31
Tennessee	241 565	218 527	176 457	D	23 038	11 922	20 355	114 907	10	12
Texas	736 794	639 479	429 950	221 095	97 315	28 601	55 166	406 722	12	13
Utah	251 545	238 149	163 880	77 175	13 396	*8 625	14 982	120 802	16	19
Vermont	65 952	61 915	49 216	D	4 037	2 089	6 289	55 367	21	32
Virginia	355 795	309 757	229 169	88 712	46 039	15 014	28 022	214 065	12	14
Washington	274 177	256 299	195 454	D	17 878	20 727	17 614	141 318	6	8
West Virginia	111 503	99 178	69 073	D	12 326	2 953	8 944	72 354	20	32
Wisconsin	355 873	327 034	257 196	90 233	28 838	13 789	34 167	292 989	7	8
Wyoming	D	D	20 935	D	D	1 434	2 244	D	D	23

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
235930, EXCAVATION CONTRACTORS			235930, EXCAVATION CONTRACTORS—Con.		
Number of establishments in business during year	18 229	2	Selected costs—Con.		
Number of proprietors and working partners	S	S	Cost of selected power, fuels, and lubricants	582 851	2
Total number of employees	116 237	2	Cost of electricity	34 291	5
Number of construction workers in March	80 039	2	Cost of natural gas and manufactured gas	10 703	8
Number of construction workers in May	94 835	2	Cost of gasoline and diesel fuel	490 625	2
Number of construction workers in August	101 640	2	Cost of on-highway use of gasoline and diesel fuel	240 295	2
Number of construction workers in November	94 806	2	Cost of off-highway use of gasoline and diesel fuel	250 330	2
Average number of construction workers	92 830	2	Cost of all other fuels and lubricants	47 232	4
Number of other employees in March	23 319	2	Rental cost for machinery, equipment, and buildings	601 267	2
Number of other employees in May	22 875	2	Rental cost for machinery and equipment	525 400	2
Number of other employees in August	24 154	2	Rental cost for buildings	75 867	3
Number of other employees in November	23 281	2	Selected purchased services	777 782	2
Average number of other employees	23 407	2	Purchased communication services	110 170	3
Payroll, all employees	3 353 874	2	Cost of repairs to buildings and other structures	24 115	5
Payroll, construction workers	2 525 857	2	Cost of repairs to machinery and equipment	643 498	2
Payroll, other employees	828 017	2	Value of construction work	13 746 608	2
First-quarter payroll, all employees	633 630	2	Value of construction work on government owned projects	2 133 812	3
Fringe benefits, all employees	767 716	2	Value of construction work on federally owned projects	431 132	5
Legally required expenditures	483 764	2	Value of construction work on state and locally owned projects	1 702 679	3
Voluntary expenditures	283 952	2	Value of construction work on privately owned projects	11 612 797	2
Value of business done	14 193 576	2	Beginning-of-year gross book value of depreciable assets	7 186 838	2
Value of construction work	13 746 608	2	Capital expenditures, other than land	994 656	3
Value of construction work subcontracted in from others	8 745 278	2	Retirements and disposition of depreciable assets	267 765	3
Other business receipts	446 968	4	End-of-year gross book value of depreciable assets	7 913 730	2
Net value of construction	12 216 146	2	Depreciation charges during year	919 915	2
Value added	9 086 184	2	Number of establishments with inventories	2 589	6
Selected costs	5 107 392	3	Value of construction work for establishments with inventories	3 204 335	4
Cost of materials, components, and supplies	2 994 080	3	End of 1997, inventories of materials and supplies	51 227	6
Cost of construction work subcontracted out to others	1 530 462	4	End of 1996, inventories of materials and supplies	45 785	6
			Number of establishments with no inventories	7 477	3
			Value of construction work for establishments with no inventories	6 560 389	3
			Number of establishments not reporting inventories	8 162	3
			Value of construction work for establishments not reporting inventories	3 981 885	4

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235930, EXCAVATION CONTRACTORS											
Total	18 229	116 237	3 353 874	14 193 576	13 746 608	12 216 146	9 086 184	3 576 930	1 530 462	2	2
Establishments with 1 to 4 employees	S	S	412 085	2 393 610	2 323 090	D	1 544 856	D	D	S	D
Establishments with 5 to 9 employees	3 642	23 130	584 661	2 468 510	2 410 564	2 226 906	1 709 780	575 072	183 658	4	4
Establishments with 10 to 19 employees	1 880	24 493	712 939	2 749 791	2 655 736	2 380 527	1 807 784	666 798	275 209	4	4
Establishments with 20 to 49 employees	834	24 354	800 817	3 121 255	2 994 152	2 649 451	1 962 282	814 272	344 701	5	5
Establishments with 50 to 99 employees	177	D	D	D	D	D	D	D	D	D	D
Establishments with 100 to 249 employees	64	D	D	D	D	D	D	D	D	D	D
Establishments with 250 to 499 employees	5	1 658	63 305	243 263	D	194 587	102 364	D	D	Z	Z
Establishments with 500 to 999 employees	—	—	—	—	—	—	—	—	—	—	—
Establishments with 1,000 employees or more	—	—	—	—	—	—	—	—	—	—	—

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235930, EXCAVATION CONTRACTORS											
Total	18 229	116 237	3 353 874	14 193 576	13 746 608	12 216 146	9 086 184	3 576 930	1 530 462	2	2
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$100,000 to \$249,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$250,000 to \$499,999	3 742	14 915	312 805	1 333 622	1 287 443	1 219 737	926 506	339 409	S	5	5
Establishments with value of business done \$500,000 to \$999,999	2 797	19 398	474 368	1 954 168	1 905 425	1 788 509	1 341 186	496 065	116 917	5	5
Establishments with value of business done \$1,000,000 to \$2,499,999	1 850	24 462	727 288	2 821 848	2 724 247	2 475 072	1 889 202	683 472	249 175	4	4
Establishments with value of business done \$2,500,000 to \$4,999,999	591	14 926	513 414	1 987 580	1 915 677	1 695 974	1 253 175	514 702	219 703	3	5
Establishments with value of business done \$5,000,000 to \$9,999,999	325	13 244	477 743	2 141 618	2 096 662	1 736 217	1 156 281	624 892	360 445	8	9
Establishments with value of business done \$10,000,000 or more	138	15 178	628 281	2 924 706	2 819 480	2 350 028	1 804 735	650 519	469 452	Z	Z

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
235930, EXCAVATION CONTRACTORS								
Total	13 746 608	11 073 208	1 587 220	809 713	2	2	3	5
Building construction, total	10 909 852	9 159 234	1 178 560	572 058	2	2	4	6
Single-family houses, detached and attached	4 646 198	4 050 961	339 161	256 077	4	4	7	8
Single-family houses, detached	3 947 525	3 455 172	275 858	216 495	4	4	8	8
Single-family houses, attached	698 673	595 788	63 303	39 582	5	5	11	14
Apartment buildings, apartment type condominiums and cooperatives	546 989	465 174	45 125	36 690	5	5	5	17
Manufacturing and light industrial buildings	916 135	689 878	158 971	67 286	4	4	11	7
Manufacturing and light industrial warehouses	316 654	254 309	46 852	15 492	5	4	13	14
Hotels and motels	154 890	137 402	12 229	5 259	6	6	10	21
Office buildings	948 569	808 923	108 912	30 734	3	3	7	19
All other commercial buildings, nec	1 889 780	1 623 580	187 329	78 872	4	5	12	12
Commercial warehouses	334 851	290 545	33 450	10 855	4	3	11	20
Religious buildings	131 868	94 226	28 981	8 661	6	7	11	40
Educational buildings	394 390	272 127	109 066	13 197	5	6	8	10
Health care and institutional buildings	223 082	160 637	55 988	6 457	4	4	10	20
Other building construction	406 445	311 471	52 496	S	6	7	11	S
Nonbuilding construction, total	2 560 290	1 913 974	408 660	237 655	4	5	5	5
Highways, streets, and related work	581 739	368 620	142 956	70 162	6	9	7	5
Private driveways and parking areas	437 042	351 828	51 188	34 026	19	23	15	16
Sewers, water mains, and related facilities	968 194	805 647	95 257	67 290	4	4	5	6
Sewers, sewer lines, septic systems, and related facilities	642 755	529 929	66 341	46 485	3	3	5	7
Water mains and related facilities	325 439	275 718	28 916	20 805	5	5	9	8
Other nonbuilding construction, nec	573 315	387 879	119 259	66 177	5	5	9	9
Construction work, nsk	276 468	X	X	X	8	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
235930, EXCAVATION CONTRACTORS											
Total	18 229	116 237	3 353 874	13 746 608	X	12 216 146	9 086 184	1 530 462	2	2	4
Establishments not specializing ..	5 518	50 363	1 587 606	6 144 393	X	5 451 039	4 007 775	693 354	3	3	3
Establishments specializing 51 percent or more	12 711	65 874	1 766 267	7 602 215	6 369 967	6 765 107	5 078 410	837 108	2	3	8
Single-family houses, detached and attached											
All establishments specializing	8 046	36 788	961 773	4 056 605	3 445 191	3 694 584	2 781 282	362 021	3	4	15
Specialization 100 percent	3 996	15 154	370 218	1 537 017	1 537 017	1 436 007	1 078 633	101 010	4	4	6
Specialization 90 to 99 percent ...	S	4 303	116 692	594 683	560 570	507 357	343 547	87 326	7	23	60
Specialization 80 to 89 percent ...	S	4 230	120 567	459 760	376 885	412 296	323 197	47 464	16	15	22
Specialization 70 to 79 percent ...	1 085	6 233	169 715	734 403	536 513	671 275	493 923	63 128	8	9	9
Specialization 60 to 69 percent ...	1 010	4 696	127 530	493 142	305 024	457 596	389 155	35 547	9	8	12
Specialization 51 to 59 percent ...	446	2 172	57 050	237 601	129 183	210 054	152 827	27 547	14	10	14
Apartment buildings, apartment type condominiums and cooperatives											
All establishments specializing	168	1 953	66 327	296 995	235 983	253 285	158 600	43 711	13	7	6
Specialization 100 percent	85	741	25 234	104 666	104 666	92 110	72 315	S	29	18	S
Specialization 90 to 99 percent ...	S	289	6 932	27 862	25 620	23 024	15 592	S	28	26	S
Specialization 80 to 89 percent ...	*16	S	*1 905	S	S	S	*4 588	S	S	S	S
Specialization 70 to 79 percent ...	3	D	D	D	D	D	D	D	D	D	D
Specialization 60 to 69 percent ...	13	637	29 355	137 324	87 667	114 869	55 323	22 455	6	3	1
Specialization 51 to 59 percent ...	2	D	D	D	D	D	D	D	D	D	D
Manufacturing and light industrial buildings											
All establishments specializing	462	4 221	117 365	482 405	392 126	427 328	327 638	55 077	10	8	8
Specialization 100 percent	225	1 388	35 134	168 083	168 083	153 511	119 402	14 572	14	12	15
Specialization 90 to 99 percent ...	*14	562	14 947	66 232	60 561	57 444	38 324	8 788	33	24	8
Specialization 80 to 89 percent ...	18	273	8 488	28 855	23 493	23 765	21 791	*5 091	31	26	40
Specialization 70 to 79 percent ...	114	664	18 783	79 252	56 993	69 947	52 214	9 305	20	14	9
Specialization 60 to 69 percent ...	47	857	25 877	94 099	58 491	83 748	62 989	10 351	29	23	26
Specialization 51 to 59 percent ...	*44	476	14 136	45 883	24 504	38 912	32 918	6 971	34	18	20
Manufacturing and light industrial warehouses											
All establishments specializing	60	393	14 389	50 302	40 149	44 766	33 165	5 536	16	10	7
Specialization 100 percent	*25	85	3 883	14 307	14 307	12 161	9 304	2 146	39	20	10
Specialization 90 to 99 percent ...	S	S	D	1 709	1 538	1 681	D	28	S	Z	Z
Specialization 80 to 89 percent ...	2	D	D	D	D	D	D	D	D	D	D
Specialization 70 to 79 percent ...	S	115	4 624	18 071	13 553	15 947	11 841	2 124	27	12	11
Specialization 60 to 69 percent ...	S	102	3 243	9 185	5 695	8 621	5 517	564	30	32	35
Specialization 51 to 59 percent ...	S	D	S	D	D	D	S	D	D	D	D
Office buildings											
All establishments specializing	278	2 741	79 641	379 068	294 788	306 513	224 118	72 555	7	7	3
Specialization 100 percent	159	494	18 692	76 339	76 339	63 756	44 700	12 583	16	12	10
Specialization 90 to 99 percent ...	*11	268	6 239	42 754	40 259	D	28 216	D	25	24	D
Specialization 80 to 89 percent ...	7	193	7 157	31 338	25 958	25 132	17 799	6 206	Z	Z	Z
Specialization 70 to 79 percent ...	34	773	21 902	128 109	93 532	92 191	74 563	35 918	11	15	5
Specialization 60 to 69 percent ...	S	822	19 193	70 563	42 689	63 994	46 672	6 569	15	10	3
Specialization 51 to 59 percent ...	10	191	6 457	29 965	16 012	D	12 168	D	28	14	D
All other commercial buildings, nec											
All establishments specializing	1 300	9 316	251 341	1 103 861	898 803	960 589	779 726	143 272	7	6	7
Specialization 100 percent	687	3 710	83 367	433 494	433 494	396 115	324 132	37 378	14	13	13
Specialization 90 to 99 percent ...	70	596	18 944	84 081	78 660	64 156	61 926	19 925	14	23	31
Specialization 80 to 89 percent ...	S	1 032	31 880	119 400	97 865	99 703	78 136	19 697	18	14	19
Specialization 70 to 79 percent ...	188	1 618	39 490	142 382	102 874	125 835	100 726	16 546	19	15	10
Specialization 60 to 69 percent ...	S	1 127	34 188	136 372	83 520	118 374	85 639	17 998	11	9	9
Specialization 51 to 59 percent ...	145	1 233	43 472	188 133	102 390	156 406	129 168	31 727	13	9	9

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997—Con.

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
235930, EXCAVATION CONTRACTORS—Con.											
Commercial warehouses											
All establishments specializing	95	840	26 561	103 275	81 199	94 900	66 536	8 375	13	10	12
Specialization 100 percent	S	146	4 353	20 441	20 441	D	7 422	D	12	11	D
Specialization 90 to 99 percent ...	^{§9} S	S	S	^{§5} 074	S	S	S	^{§217} S	S	74	69
Specialization 80 to 89 percent ...	S	109	4 724	19 998	17 323	17 853	16 263	2 145	21	11	31
Specialization 70 to 79 percent ...	24	312	10 097	35 699	25 961	34 023	24 764	^{§1} 676	16	17	42
Specialization 60 to 69 percent ...	S	^{§111} S	^{§2} 831	S	S	S	S	S	69	S	S
Specialization 51 to 59 percent ...	7	120	3 208	13 556	6 954	D	6 467	D	24	13	D
Educational buildings											
All establishments specializing	143	1 294	38 345	158 777	127 627	138 503	91 249	20 274	21	14	16
Specialization 100 percent	7	^{§47} S	^{§1} 247	^{§10} 557	^{§10} 557	^{§10} 102	^{§9} 715	455	58	69	13
Specialization 90 to 99 percent ...	S	297	9 408	42 653	39 662	37 156	18 637	^{§5} 497	26	31	47
Specialization 80 to 89 percent ...	37	352	13 219	50 732	42 454	45 497	30 580	5 236	20	17	20
Specialization 70 to 79 percent ...	^{§20} S	174	4 698	11 804	8 813	9 141	6 631	^{§2} 663	35	28	53
Specialization 60 to 69 percent ...	S	^{§356} S	^{§7} 649	^{§30} 845	^{§19} 276	^{§28} 105	^{§18} 205	2 740	66	44	25
Specialization 51 to 59 percent ...	4	67	2 124	12 185	6 866	8 502	7 481	3 683	Z	Z	Z
Other building construction											
All establishments specializing	S	2 078	50 307	207 614	176 802	176 232	126 899	31 383	11	13	38
Specialization 100 percent	S	1 196	28 008	109 377	109 377	103 914	84 527	5 463	16	16	31
Specialization 90 to 99 percent ...	S	S	S	S	S	D	D	D	S	S	D
Specialization 80 to 89 percent ...	^{§7} S	^{§156} S	^{§3} 511	^{§21} 017	^{§18} 136	^{§7} 628	^{§3} 089	S	46	68	S
Specialization 70 to 79 percent ...	25	189	5 490	17 709	13 247	15 479	11 817	2 230	27	25	29
Specialization 60 to 69 percent ...	5	218	4 880	24 895	14 937	D	D	D	Z	Z	D
Specialization 51 to 59 percent ...	^{§38} S	^{§229} S	^{§7} 358	^{§29} 177	^{§15} 789	^{§27} 604	^{§17} 897	1 573	46	51	19
Private driveways and parking areas											
All establishments specializing	318	2 471	61 190	341 556	289 447	281 811	191 927	^{§59}746	15	26	54
Specialization 100 percent	127	938	24 000	^{§154} 315	^{§154} 315	^{§118} 744	^{§68} 153	S	28	52	S
Specialization 90 to 99 percent ...	^{§44} S	^{§291} S	^{§4} 422	^{§26} 982	^{§24} 284	^{§24} 528	^{§18} 427	S	53	53	S
Specialization 80 to 89 percent ...	59	324	9 590	49 792	41 531	45 475	33 449	4 316	24	17	19
Specialization 70 to 79 percent ...	36	299	6 774	26 455	19 419	21 476	17 729	^{§4} 979	35	33	49
Specialization 60 to 69 percent ...	39	473	12 735	^{§67} 760	41 277	55 786	41 214	^{§11} 974	35	40	65
Specialization 51 to 59 percent ...	^{§13} S	^{§146} S	^{§3} 668	^{§16} 253	^{§8} 621	^{§15} 801	^{§12} 955	^{§452} S	58	48	50

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
235930, EXCAVATION CONTRACTORS		
Total	14 193 576	2
Heavy construction, total	1 802 333	3
Excavation work, earthmoving or land clearing contractor, not connected with buildings	1 053 207	2
Heavy construction contractor	382 440	5
Highway and street general contractor	366 686	9
Special trade contractors, total	10 977 828	2
Excavation work: earthmoving or land clearing contractor, connected with buildings	9 392 209	2
Foundation contractor, digging of	1 172 037	4
Subdividing and preparing land owned by others	413 581	6
Other construction activities, nec	803 351	5
Other business activities secondary to construction activities, total	443 155	4
Other business activities, secondary to construction activities, nec	230 717	5
Transportation of goods for others, secondary to construction activities	212 438	6
Kind of business activity, nsk	166 911	8

Table 10. Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
235930, EXCAVATION CONTRACTORS											
Total	18 229	116 237	3 353 874	13 746 608	X	12 216 146	9 086 184	1 530 462	2	2	4
Establishments not specializing	3 353	22 955	695 494	2 648 647	X	2 330 693	1 870 198	317 954	3	3	3
Establishments specializing 51 percent or more	14 876	93 283	2 658 380	11 097 962	9 334 276	9 885 453	7 215 987	1 212 508	2	2	6
Excavation work: earthmoving or land clearing contractor, connected with buildings											
All establishments specializing	12 543	82 652	2 336 350	9 874 155	8 245 755	8 752 582	6 365 045	1 121 573	2	3	6
Specialization 100 percent	6 407	31 810	863 294	3 800 914	3 800 914	3 432 058	2 551 442	368 857	4	4	10
Specialization 90 to 99 percent	1 185	9 401	276 849	1 134 404	1 058 312	993 178	750 415	141 226	5	4	3
Specialization 80 to 89 percent	1 130	9 541	293 489	1 309 158	1 071 557	1 110 926	746 903	198 232	7	12	27
Specialization 70 to 79 percent	1 513	12 217	342 701	1 300 375	951 458	1 154 861	818 943	145 515	5	4	3
Specialization 60 to 69 percent	1 368	12 390	349 791	1 357 641	843 156	1 201 178	839 903	156 464	7	7	8
Specialization 51 to 59 percent	939	7 292	210 227	971 661	520 357	860 382	657 439	111 280	7	5	6
Foundation contractor, digging of											
All establishments specializing	1 199	7 371	238 143	817 858	723 363	782 614	607 515	35 244	6	7	9
Specialization 100 percent	656	4 849	154 702	504 657	504 657	485 328	382 797	19 329	7	7	12
Specialization 90 to 99 percent	74	408	13 686	60 396	57 012	57 072	45 950	3 324	19	17	31
Specialization 80 to 89 percent	65	302	9 303	31 411	25 860	30 546	24 662	^S 866	26	25	70
Specialization 70 to 79 percent	131	421	12 295	46 677	33 943	44 608	33 571	2 069	19	19	18
Specialization 60 to 69 percent	128	863	S	S	S	S	S	5 413	25	S	33
Specialization 51 to 59 percent	144	528	17 440	65 289	34 767	61 045	S	4 243	22	21	6
Subdividing and preparing land owned by others											
All establishments specializing	258	1 856	47 001	238 839	199 036	198 511	130 350	40 328	13	12	30
Specialization 100 percent	141	788	19 021	87 612	87 612	72 166	48 370	15 447	21	17	14
Specialization 90 to 99 percent	^S 7	^S 46	^S 1 107	^S 6 457	^S 5 812	^S 5 723	^S 2 619	^S 734	50	53	67
Specialization 80 to 89 percent	^S 69	S	10 401	63 158	51 691	S	S	^S 16 278	S	36	73
Specialization 70 to 79 percent	^S 11	196	6 602	44 180	32 323	39 187	26 557	4 993	8	13	12
Specialization 60 to 69 percent	^S 24	226	5 864	23 686	14 346	21 692	11 807	1 994	29	19	20
Specialization 51 to 59 percent	^S 6	116	4 006	13 745	7 251	12 863	9 550	^S 882	25	36	67

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
235930, EXCAVATION CONTRACTORS										
United States	13 746 608	10 420	10 074 131	1 117	528 717	7 754	3 143 761	2	2	13
Alabama	130 661	131	85 605	6	4 669	111	40 387	12	17	Z
Alaska	80 015	76	62 998	^{s12}	S	22	8 948	22	26	S
Arizona	201 512	195	D	3	D	97	D	10	D	D
Arkansas	D	143	D	8	D	52	D	D	D	D
California	1 228 703	543	1 038 494	^{s6}	D	457	D	4	4	D
Colorado	D	359	D	4	1 904	184	D	D	D	Z
Connecticut	230 981	247	137 172	21	26 508	142	67 300	7	11	5
Delaware	34 758	38	D	^{s31}	D	11	D	5	D	D
District of Columbia	D	2	D	12	D	1	D	D	D	D
Florida	668 934	358	512 076	S	^{s21} 924	233	134 933	21	27	71
Georgia	590 715	250	428 253	^{s50}	^{s30} 184	295	132 277	14	18	53
Hawaii *	D	14	D	—	—	^{s10}	D	D	D	—
Idaho	D	168	53 576	6	—	7	D	D	24	D
Illinois	613 869	457	433 474	38	23 582	283	156 813	7	5	21
Indiana	393 502	342	327 147	53	13 114	198	53 241	5	6	14
Iowa	155 367	191	109 473	^{s30}	D	^{s53}	D	19	18	D
Kansas	83 688	40	54 029	12	10 904	86	18 755	7	8	1
Kentucky	161 521	111	101 143	29	12 061	161	48 316	10	13	6
Louisiana	117 978	81	^{s73} 745	^{s29}	S	76	24 290	35	52	S
Maine	136 907	181	105 107	^{s15}	D	144	D	8	11	D
Maryland	242 115	209	169 422	20	16 896	109	55 797	5	6	10
Massachusetts	475 334	300	343 286	^{s50}	24 215	316	107 833	8	10	5
Michigan	621 424	502	419 478	^{s32}	S	425	182 832	7	6	S
Minnesota	346 931	311	265 909	12	3 533	205	77 490	5	7	18
Mississippi	D	^{s43}	D	11	4 837	43	D	D	D	39
Missouri	258 968	221	191 765	16	D	193	D	14	22	D
Montana	D	^{s45}	D	—	—	^{s42}	D	D	D	—
Nebraska	D	27	D	^{s27}	^{s5} 249	66	D	D	D	60
Nevada	240 596	133	181 065	^{s30}	S	32	32 762	10	6	S
New Hampshire	106 641	140	72 078	25	2 046	132	32 517	11	17	32
New Jersey	489 631	279	329 598	76	24 150	308	135 883	5	6	31
New Mexico	73 684	^{s33}	D	6	1 367	36	D	10	D	5
New York	499 810	393	341 401	41	13 737	362	144 672	4	5	14
North Carolina	D	393	D	^{s19}	D	311	D	D	D	D
North Dakota	43 562	^{s39}	30 559	7	^{s1} 291	^{s29}	11 712	23	29	48
Ohio	659 051	489	517 078	36	12 292	351	129 681	5	6	19
Oklahoma	63 262	75	54 929	^{s30}	D	62	D	13	15	D
Oregon	247 291	213	183 306	^{s38}	4 319	149	59 666	8	11	37
Pennsylvania	725 816	551	458 560	^{s48}	14 789	418	252 466	9	5	15
Rhode Island	D	37	D	10	D	^{s24}	D	D	D	D
South Carolina	187 500	193	144 930	^{s27}	9 623	96	32 947	11	14	19
South Dakota	D	^{s33}	D	^{s16}	D	^{s27}	D	D	D	D
Tennessee	260 170	199	164 172	^{s36}	26 320	202	69 678	9	15	12
Texas	D	343	540 398	9	D	345	D	D	15	D
Utah	251 087	186	203 888	—	—	97	47 199	16	19	—
Vermont	70 628	90	47 434	^{s24}	^{s5} 194	85	18 001	20	27	55
Virginia	350 247	282	275 875	24	13 954	187	60 418	12	15	2
Washington	275 486	232	189 079	11	4 850	217	81 556	6	5	Z
West Virginia	130 874	103	87 274	31	^{s19} 603	61	23 997	19	25	51
Wisconsin	360 658	356	244 368	17	6 888	185	109 402	7	9	1
Wyoming	28 885	46	D	3	D	20	D	5	D	D

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **Other building construction.** Includes all types of residential and nonresidential building construction not shown elsewhere.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military nonbuilding such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Wrecking and Demolition Contractors

1997

Issued August 1999

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1997 Economic Census

Construction

Industry Series



U S C E N S U S B U R E A U

Helping You Make Informed Decisions

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division	301-457-4673
Service Sector Statistics Division	301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
235940	Wrecking & demolition contractors	1 542	18 820	592 176	2 164 162	1 913 892	1 732 366	321 372	109 871
179500	Wrecking & demolition work special trade contractors	1 542	18 820	592 176	2 164 162	1 913 892	1 732 366	321 372	109 871

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers	
235940, WRECKING & DEMOLITION CONTRACTORS										
United States	1 542	18 820	14 486	13 274	14 157	15 557	14 956	592 176	414 583	2
Alabama	^{§24} 97	75	84	71	69	75	2 091	1 649	15	
Alaska	^{§6} 61	43	20	38	53	62	2 601	1 873	28	
Arizona	19	297	196	162	203	216	7 489	4 552	9	
Arkansas	4	40	D	D	D	47	D	1 123	377	
California	197	3 306	2 528	2 433	2 469	2 632	2 580	102 843	69 253	
Colorado	19	203	203	198	209	211	194	6 343	3 934	
Connecticut	^{§58} 364	275	224	296	306	273	16 623	12 712	16	
Delaware	3	S	D	S	S	D	D	D	S	
District of Columbia	1	D	D	D	D	D	D	D	D	
Florida	38	315	214	230	185	223	216	7 605	4 523	
Georgia	28	298	234	221	227	254	235	6 742	4 539	
Hawaii *	3	97	81	71	62	103	86	2 446	1 902	
Idaho	S	D	S	S	S	S	S	D	S	
Illinois	91	1 389	1 126	992	1 108	1 257	1 147	65 084	48 464	
Indiana	52	336	223	223	227	218	222	9 512	6 274	
Iowa	8	55	41	34	38	46	45	1 432	809	
Kansas	12	80	69	52	75	94	54	2 019	1 542	
Kentucky	14	125	92	86	100	97	83	3 525	2 471	
Louisiana	16	125	91	83	101	96	83	2 898	1 688	
Maine	8	S	S	S	S	18	S	401	281	
Maryland	37	625	506	388	356	623	655	18 858	14 230	
Massachusetts	61	667	540	471	459	613	616	21 131	14 867	
Michigan	76	1 245	976	850	1 033	984	984	44 557	32 383	
Minnesota	^{§19} 183	145	111	152	171	147	147	6 521	4 673	
Mississippi	4	D	D	D	D	D	D	D	D	
Missouri	34	280	191	167	189	194	213	7 420	4 116	
Montana	3	^{§66} 191	^{§64} 167	^{§22} 189	^{§78} 194	^{§79} 213	^{§76} 213	^{§1} 7 420	^{§1} 4 116	
Nebraska	5	101	77	D	89	81	D	D	D	
Nevada	7	76	58	62	50	59	59	2 316	1 436	
New Hampshire	10	115	93	57	91	104	119	4 300	2 810	
New Jersey	63	965	773	664	789	804	834	33 150	25 351	
New Mexico	5	56	44	41	52	41	40	1 421	1 021	
New York	128	1 647	1 276	1 138	1 310	1 407	1 248	52 126	37 780	
North Carolina	9	D	D	D	D	D	D	D	D	
North Dakota	^{§2} D	D	D	D	D	D	D	D	D	
Ohio	66	764	572	531	512	593	653	23 483	16 044	
Oklahoma	18	194	139	134	170	132	121	5 228	3 010	
Oregon	19	143	98	76	84	109	123	4 825	2 971	
Pennsylvania	70	598	469	465	427	495	489	15 128	9 830	
Rhode Island	10	96	74	55	68	119	55	3 125	2 404	
South Carolina	7	S	S	S	S	S	S	S	S	
South Dakota	—	—	—	—	—	—	—	—	—	
Tennessee	31	384	305	370	313	305	233	9 717	6 559	
Texas	89	1 204	881	859	834	914	920	29 040	20 315	
Utah	^{§26} 3	S	S	S	S	S	S	S	S	
Vermont	3	S	S	S	S	S	S	S	S	
Virginia	31	534	427	440	437	436	395	13 696	8 691	
Washington	37	459	324	283	299	386	326	19 571	13 194	
West Virginia	^{§25} 42	^{§69} 42	^{§62} 42	^{§62} 46	30	28	28	973	586	
Wisconsin	26	188	124	125	134	126	109	5 786	3 698	
Wyoming	—	—	—	—	—	—	—	—	—	

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
235940, WRECKING & DEMOLITION CONTRACTORS										
United States	2 164 162	1 913 892	1 732 366	321 372	250 269	105 796	109 871	790 383	2	4
Alabama	13 324	10 325	6 650	3 675	S	⁵ 416	409	³ 386	24	34
Alaska	7 807	7 553	6 656	D	254	618	S	² 153	22	S
Arizona	42 592	40 914	39 139	2 541	1 678	1 403	1 391	6 711	6	24
Arkansas	D	D	3 809	D	D	D	S	S	D	S
California	363 552	314 376	314 341	34 307	49 175	24 760	13 614	86 376	4	10
Colorado	D	S	S	D	D	597	883	4 412	S	8
Connecticut	54 768	48 093	36 728	11 854	⁶ 676	1 491	1 598	15 353	18	9
Delaware	D	D	D	D	D	D	D	S	D	D
District of Columbia	D	D	D	D	D	D	D	D	D	D
Florida	32 374	27 153	20 938	D	5 221	1 116	1 381	S	2	4
Georgia	24 043	19 488	15 404	⁵ 753	⁴ 555	988	² 192	9 801	21	49
Hawaii *	7 333	D	6 952	834	D	429	D	5 482	D	D
Idaho	D	S	S	D	D	D	S	S	S	S
Illinois	194 043	179 631	157 481	33 084	14 412	5 533	8 950	116 021	5	5
Indiana	33 161	31 213	27 780	4 356	1 948	966	⁴ 806	23 183	17	53
Iowa	5 892	5 437	4 395	1 042	455	277	264	2 753	Z	Z
Kansas	6 065	5 231	4 835	D	834	219	494	3 091	Z	Z
Kentucky	13 402	12 793	10 873	1 928	609	811	808	5 563	Z	Z
Louisiana	13 221	12 080	10 693	D	1 141	710	240	3 793	2	1
Maine	2 753	D	1 453	948	D	D	S	S	D	S
Maryland	69 510	61 782	47 675	14 143	7 729	3 951	1 505	10 932	17	11
Massachusetts	87 322	74 856	72 108	D	12 465	7 803	5 775	25 338	7	8
Michigan	148 226	126 559	123 821	20 488	21 667	10 754	10 571	62 330	2	1
Minnesota	19 885	18 927	18 000	D	958	1 023	1 771	10 942	5	7
Mississippi	D	D	D	D	D	D	D	D	D	D
Missouri	44 700	41 208	38 719	2 901	3 492	498	390	6 076	2	8
Montana	³ 152	³ 013	² 136	⁸ 78	¹ 39	¹ 21	¹ 08	¹ 022	50	50
Nebraska	D	D	D	D	D	D	D	D	D	D
Nevada	S	S	S	989	S	S	S	198	S	Z
New Hampshire	15 896	14 352	11 191	3 359	1 544	748	1 102	5 933	Z	Z
New Jersey	111 890	99 133	93 912	16 763	12 757	5 125	6 679	39 944	3	2
New Mexico	4 218	4 022	2 636	D	196	201	455	3 580	15	2
New York	218 409	189 313	165 664	26 681	29 096	8 356	S	45 300	4	S
North Carolina	D	19 512	17 650	D	D	D	D	D	Z	D
North Dakota	D	D	D	D	D	D	D	D	D	D
Ohio	86 737	78 356	66 075	13 867	8 381	3 301	2 767	43 220	3	1
Oklahoma	20 354	18 877	16 817	2 570	1 477	407	1 868	15 690	13	8
Oregon	17 536	15 650	12 100	3 550	1 886	723	S	6 183	4	S
Pennsylvania	65 959	60 486	53 687	7 875	5 473	3 713	S	24 209	3	S
Rhode Island	9 411	8 632	8 427	D	779	469	535	4 093	Z	Z
South Carolina	S	S	S	S	S	S	S	S	S	S
South Dakota	—	—	—	—	—	—	—	—	—	—
Tennessee	33 504	29 398	28 781	4 551	4 106	1 688	1 497	13 608	16	11
Texas	121 532	100 474	87 484	20 258	21 058	6 078	2 848	S	10	5
Utah	D	S	S	D	D	S	1 140	⁷ 899	S	39
Vermont	D	S	S	D	D	D	S	S	S	S
Virginia	44 939	40 511	31 613	12 811	4 428	1 132	3 171	17 908	6	17
Washington	57 710	52 864	51 049	5 047	4 846	3 581	3 621	28 046	1	2
West Virginia	5 433	5 304	5 123	464	129	220	207	2 096	27	36
Wisconsin	³ 6 078	³ 3 652	² 9 965	⁵ 039	2 426	¹ 215	³ 444	17 379	56	49
Wyoming	—	—	—	—	—	—	—	—	—	—

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
235940, WRECKING & DEMOLITION CONTRACTORS			235940, WRECKING & DEMOLITION CONTRACTORS—Con.		
Number of establishments in business during year	1 542	4	Selected costs	571 642	2
Number of proprietors and working partners	S	S	Cost of materials, components, and supplies	260 282	3
Total number of employees	18 820	2	Cost of construction work subcontracted out to others	250 269	3
Number of construction workers in March	13 274	2	Cost of selected power, fuels, and lubricants	61 091	3
Number of construction workers in May	14 157	2	Cost of electricity	4 661	4
Number of construction workers in August	15 557	2	Cost of natural gas and manufactured gas	2 270	2
Number of construction workers in November	14 956	2	Cost of gasoline and diesel fuel	49 602	4
Average number of construction workers	14 486	2	Cost of on-highway use of gasoline and diesel fuel	31 160	3
Number of other employees in March	4 363	2	Cost of off-highway use of gasoline and diesel fuel	18 442	6
Number of other employees in May	4 248	2	Cost of all other fuels and lubricants	4 557	8
Number of other employees in August	4 357	2	Rental cost for machinery, equipment, and buildings	105 796	2
Number of other employees in November	4 369	2	Rental cost for machinery and equipment	90 005	2
Average number of other employees	4 334	2	Rental cost for buildings	15 790	3
Payroll, all employees	592 176	1	Selected purchased services	113 612	2
Payroll, construction workers	414 583	2	Purchased communication services	23 244	2
Payroll, other employees	177 592	1	Cost of repairs to buildings and other structures	4 356	6
First-quarter payroll, all employees	124 402	1	Cost of repairs to machinery and equipment	86 012	2
Fringe benefits, all employees	144 366	2	Value of construction work	2 164 162	2
Legally required expenditures	98 393	2	Value of construction work on government owned projects	605 446	2
Voluntary expenditures	45 973	2	Value of construction work on federally owned projects	128 778	3
Value of business done	2 304 008	2	Value of construction work on state and locally owned projects	476 667	3
Value of construction work	2 164 162	2	Value of construction work on privately owned projects	1 558 716	2
Value of construction work subcontracted in from others	1 099 814	2	Beginning-of-year gross book value of depreciable assets	703 890	2
Other business receipts	139 846	2	Capital expenditures, other than land	109 871	4
Net value of construction	1 913 892	2	Retirements and disposition of depreciable assets	23 378	3
Value added	1 732 366	2	End-of-year gross book value of depreciable assets	790 383	2
			Depreciation charges during year	81 618	2
			Number of establishments with inventories	270	11
			Value of construction work for establishments with inventories	660 842	4
			End of 1997, inventories of materials and supplies	14 240	10
			End of 1996, inventories of materials and supplies	15 255	8
			Number of establishments with no inventories	532	8
			Value of construction work for establishments with no inventories	829 601	3
			Number of establishments not reporting inventories	740	5
			Value of construction work for establishments not reporting inventories	673 718	1

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235940, WRECKING & DEMOLITION CONTRACTORS											
Total	1 542	18 820	592 176	2 304 008	2 164 162	1 913 892	1 732 366	321 372	250 269	2	2
Establishments with 1 to 4 employees	700	1 457	28 078	154 362	151 233	135 362	110 333	28 158	15 871	11	13
Establishments with 5 to 9 employees	348	2 236	57 555	246 959	241 839	207 848	177 743	35 225	33 991	6	7
Establishments with 10 to 19 employees	263	3 560	102 244	455 700	423 889	384 163	356 682	59 291	39 727	6	6
Establishments with 20 to 49 employees	168	4 866	172 307	655 481	623 229	547 725	473 208	106 769	75 504	2	2
Establishments with 50 to 99 employees	39	2 611	82 911	279 829	264 784	240 837	224 756	31 126	23 947	Z	Z
Establishments with 100 to 249 employees	22	2 977	105 582	370 543	D	299 027	303 278	D	D	Z	Z
Establishments with 250 to 499 employees	3	1 114	43 498	141 133	D	98 931	86 366	D	D	Z	Z
Establishments with 500 to 999 employees	—	—	—	—	—	—	—	—	—	—	—
Establishments with 1,000 employees or more	—	—	—	—	—	—	—	—	—	—	—

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235940, WRECKING & DEMOLITION CONTRACTORS											
Total	1 542	18 820	592 176	2 304 008	2 164 162	1 913 892	1 732 366	321 372	250 269	2	2
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	S	188	2 141	S	S	S	S	835	\$785	21	S
Establishments with value of business done \$100,000 to \$249,999	269	724	11 358	45 093	44 698	39 984	34 115	6 264	4 714	11	13
Establishments with value of business done \$250,000 to \$499,999	333	1 426	26 661	115 685	113 639	104 801	84 595	22 252	8 838	10	14
Establishments with value of business done \$500,000 to \$999,999	244	1 977	47 117	169 163	165 694	150 891	130 478	23 882	14 803	7	8
Establishments with value of business done \$1,000,000 to \$2,499,999	258	4 149	115 486	400 720	384 693	347 619	303 238	60 408	37 074	4	5
Establishments with value of business done \$2,500,000 to \$4,999,999	123	3 181	112 266	432 541	412 627	373 112	317 821	75 205	39 515	4	6
Establishments with value of business done \$5,000,000 to \$9,999,999	54	2 467	87 687	362 100	350 722	301 075	263 624	48 829	49 647	Z	Z
Establishments with value of business done \$10,000,000 or more	39	4 613	188 367	767 921	681 747	587 139	589 931	83 382	94 608	Z	Z

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
235940, WRECKING & DEMOLITION CONTRACTORS								
Total	2 164 162	S	S	S	2	S	S	S
Building construction, total	1 640 663	S	S	S	2	S	S	S
Single-family houses, detached and attached	216 944	S	S	S	5	S	S	S
Single-family houses, detached	200 048	S	S	S	5	S	S	S
Single-family houses, attached	16 896	S	S	S	5	S	S	S
Apartment buildings, apartment type condominiums and cooperatives	64 185	S	S	S	7	S	S	S
Manufacturing and light industrial buildings	299 381	S	S	S	2	S	S	S
Manufacturing and light industrial warehouses	113 084	S	S	S	2	S	S	S
Hotels and motels	21 764	S	S	S	7	S	S	S
Office buildings	259 346	S	S	S	2	S	S	S
All other commercial buildings, nec	393 730	S	S	S	3	S	S	S
Commercial warehouses	98 152	S	S	S	4	S	S	S
Educational buildings	51 236	S	S	S	7	S	S	S
Health care and institutional buildings	53 522	S	S	S	1	S	S	S
All other nonresidential buildings	69 319	S	S	S	1	S	S	S
Nonbuilding construction, total	476 028	S	S	S	6	S	S	S
Highways, streets, and related work	93 475	S	S	S	4	S	S	S
Bridges, tunnels, and elevated highways	56 554	S	S	S	6	S	S	S
Sewers, water mains, and related facilities	20 193	S	S	S	19	S	S	S
Tank storage facilities other than water	84 043	S	S	S	27	S	S	S
Other nonbuilding construction, nec	221 763	S	S	S	5	S	S	S
Construction work, nsk	47 471	X	X	X	3	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—										
				For all types	For specialized type				B	D	H								
												A	B	C	D	E	F	G	H
235940, WRECKING & DEMOLITION CONTRACTORS																			
Total	1 542	18 820	592 176	2 164 162	X	1 913 892	1 732 366	250 269	2	2	3								
Establishments not specializing ..	488	7 334	248 476	874 818	X	783 744	739 989	91 074	2	2	1								
Establishments specializing 51 percent or more	1 054	11 487	343 700	1 289 343	1 132 235	1 130 148	992 377	159 195	2	3	4								
Single-family houses, detached and attached																			
All establishments specializing	S	1 282	32 256	131 122	115 619	117 469	99 016	13 653	9	9	23								
Specialization 100 percent	S	699	16 334	73 376	73 376	66 759	59 082	6 617	7	12	9								
Specialization 90 to 99 percent ...	S	S	2 208	S	S	S	S	189	S	S	27								
Specialization 80 to 89 percent ...	10	181	5 932	17 406	14 490	16 334	15 133	1 072	8	5	1								
Specialization 70 to 79 percent ...	11	54	1 431	5 488	3 909	4 611	4 409	877	Z	Z	Z								
Specialization 60 to 69 percent ...	19	201	4 812	18 869	11 778	14 461	8 336	4 408	46	38	69								
Specialization 51 to 59 percent ...	S	70	539	553	986	7 063	5 809	490	55	34	32								
Manufacturing and light industrial buildings																			
All establishments specializing	83	1 580	48 945	201 368	172 127	161 357	142 746	40 011	2	3	Z								
Specialization 100 percent	51	644	20 902	76 279	76 279	67 466	59 930	8 813	4	7	Z								
Specialization 90 to 99 percent ...	S	D	D	25 174	22 732	24 801	24 391	373	D	D	Z								
Specialization 80 to 89 percent ...	4	347	8 598	D	D	D	D	D	D	Z	D								
Specialization 70 to 79 percent ...	12	219	7 984	35 900	26 503	28 376	S	7 524	Z	Z	Z								
Specialization 60 to 69 percent ...	6	219	8 801	D	17 395	22 600	S	D	D	7	D								
Specialization 51 to 59 percent ...	1	D	D	D	D	D	D	D	D	D	D								
Office buildings																			
All establishments specializing	120	1 532	39 421	134 487	118 137	120 850	103 423	13 636	5	3	5								
Specialization 100 percent	S	632	17 904	66 668	66 668	56 892	49 382	9 776	2	4	6								
Specialization 90 to 99 percent ...	S	171	2 448	10 005	9 198	D	8 115	D	17	14	D								
Specialization 80 to 89 percent ...	14	397	10 422	27 727	22 201	26 596	24 926	1 131	16	8	4								
Specialization 70 to 79 percent ...	10	224	4 957	13 096	9 752	12 637	8 148	459	7	7	Z								
Specialization 60 to 69 percent ...	6	85	2 997	13 996	8 670	13 244	11 004	752	Z	Z	Z								
Specialization 51 to 59 percent ...	S	S	S	S	S	D	S	D	S	S	D								
All other commercial buildings, nec																			
All establishments specializing	181	2 508	72 181	266 265	245 097	224 961	213 668	41 304	5	5	5								
Specialization 100 percent	127	1 759	48 135	184 232	184 232	152 326	150 578	31 906	5	4	5								
Specialization 90 to 99 percent ...	14	136	4 466	13 410	12 222	11 805	11 539	1 605	13	15	6								
Specialization 80 to 89 percent ...	12	224	6 127	19 643	15 818	17 093	16 145	2 550	13	12	6								
Specialization 70 to 79 percent ...	6	D	D	D	D	D	D	D	D	D	D								
Specialization 60 to 69 percent ...	20	303	10 851	42 138	27 749	37 578	29 703	4 560	24	29	22								
Specialization 51 to 59 percent ...	1	D	D	D	D	D	D	D	D	D	D								

Table 9. Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
235940, WRECKING & DEMOLITION CONTRACTORS		
Total	2 304 008	2
Heavy construction, total	33 343	6
Excavation work, earthmoving or land clearing contractor, not connected with buildings	33 343	6
Special trade contractors, total	2 053 348	2
Concrete breaking and cutting contractor	272 586	5
Dismantling steel oil tanks contractor, except oil field work	129 190	18
Excavation work: earthmoving or land clearing contractor, connected with buildings	62 182	5
Wrecking and demolition contractor, buildings and other structures	1 589 390	2
Other construction activities, nec	70 988	5
Other business activities secondary to construction activities, total	139 666	2
Asbestos abatement and lead paint removal contractor, secondary to construction activities	67 628	3
Other business activities, secondary to construction activities, nec	48 459	4
Transportation of goods for others, secondary to construction activities	23 579	2
Kind of business activity, nsk	6 663	Z

Table 10. **Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
235940, WRECKING & DEMOLITION CONTRACTORS											
Total	1 542	18 820	592 176	2 164 162	X	1 913 892	1 732 366	250 269	2	2	3
Establishments not specializing	67	995	35 537	107 266	X	93 132	93 307	14 134	2	2	1
Establishments specializing 51 percent or more	1 475	17 826	556 638	2 056 896	1 864 775	1 820 761	1 639 059	236 135	2	2	3
Concrete breaking and cutting contractor											
All establishments specializing	177	2 320	86 482	265 836	249 464	257 958	231 250	7 878	6	5	6
Specialization 100 percent	122	1 223	45 090	134 054	134 054	129 997	110 933	4 057	9	9	8
Specialization 90 to 99 percent	6	D	D	D	D	D	D	D	D	D	D
Specialization 80 to 89 percent	14	160	5 057	13 732	11 328	13 409	11 501	323	24	24	16
Specialization 70 to 79 percent	S	245	7 490	21 547	15 533	D	18 523	D	32	26	D
Specialization 60 to 69 percent	7	86	2 620	7 998	4 860	D	7 823	D	35	39	D
Specialization 51 to 59 percent	3	D	D	D	D	D	D	D	D	D	D
Dismantling steel oil tanks contractor, except oil field work											
All establishments specializing	133	765	25 385	128 232	124 839	114 939	95 855	13 292	13	18	34
Specialization 100 percent	109	627	21 612	110 827	110 827	99 672	S	^{\$} 11 155	15	21	40
Specialization 90 to 99 percent	4	32	1 022	5 666	5 238	5 274	4 798	392	22	15	17
Specialization 80 to 89 percent	2	D	D	D	D	D	D	D	D	D	D
Specialization 70 to 79 percent	^{\$} 13	^{\$} 61	^{\$} 1 512	5 723	4 213	4 729	3 781	^{\$} 993	53	36	56
Specialization 60 to 69 percent	^{\$} 1	D	D	D	D	D	D	D	D	D	D
Specialization 51 to 59 percent	3	^{\$} 18	^{\$} 473	^{\$} 1 021	^{\$} 547	^{\$} 924	^{\$} 661	^{\$} 98	44	49	50
Wrecking and demolition contractor, buildings and other structures											
All establishments specializing	1 149	14 623	440 180	1 647 680	1 475 323	1 433 450	1 299 215	214 230	2	2	2
Specialization 100 percent	731	8 097	234 179	891 638	891 638	788 360	670 827	103 277	2	2	2
Specialization 90 to 99 percent	132	2 024	72 531	249 093	231 319	230 357	202 998	18 736	4	4	5
Specialization 80 to 89 percent	104	1 368	41 015	166 733	138 178	129 748	114 506	36 985	7	7	1
Specialization 70 to 79 percent	69	684	16 772	83 366	61 045	70 224	63 502	13 142	17	16	21
Specialization 60 to 69 percent	70	1 516	46 068	161 765	102 282	138 600	156 445	23 165	6	4	13
Specialization 51 to 59 percent	44	934	29 615	95 086	50 862	76 161	90 937	18 925	5	3	3

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
235940, WRECKING & DEMOLITION CONTRACTORS										
United States	2 164 162	837	1 290 100	429	279 345	692	594 717	2	3	2
Alabama	20 567	^{\$21}	^{\$9} 155	9	7 876	3	3 536	24	54	Z
Alaska	12 044	^{\$5}	D	S	D	1	D	14	D	D
Arizona	43 733	16	D	5	D	3	D	6	D	D
Arkansas	1 466	1	D	4	D	3	D	Z	D	D
California	363 285	136	302 090	7	2 182	61	59 014	4	4	Z
Colorado	S	5	D	4	1 157	14	D	S	D	Z
Connecticut	53 156	^{\$36}	21 715	6	3 505	^{\$22}	27 936	15	35	Z
Delaware	S	1	D	6	D	2	D	S	D	D
District of Columbia	10 423	—	—	13	D	1	D	24	—	D
Florida	39 034	15	17 399	11	6 861	22	14 774	1	2	2
Georgia	29 643	^{\$14}	13 796	11	8 068	14	7 779	17	36	Z
Hawaii *	7 333	2	D	—	—	1	D	Z	D	—
Idaho	D	S	D	2	—	1	D	D	D	D
Illinois	143 388	50	110 323	14	8 324	40	24 741	6	8	Z
Indiana	70 489	15	17 541	18	37 625	37	15 322	8	26	Z
Iowa	7 651	4	2 441	7	1 904	4	3 306	Z	Z	Z
Kansas	7 005	2	D	11	D	10	D	Z	D	Z
Kentucky	17 154	5	5 256	14	4 451	8	7 447	Z	Z	Z
Louisiana	14 428	9	7 696	7	3 595	7	3 137	1	2	Z
Maine	3 362	3	2 157	5	656	5	550	Z	Z	Z
Maryland	58 363	21	30 162	7	2 839	16	25 362	15	29	Z
Massachusetts	97 619	40	69 805	^{\$18}	16 248	21	11 566	7	7	29
Michigan	118 379	27	73 431	^{\$14}	^{\$4} 080	48	40 868	3	3	47
Minnesota	21 374	^{\$12}	12 111	5	1 996	6	7 267	6	10	Z
Mississippi	S	—	—	5	D	4	D	S	—	D
Missouri	47 342	16	38 112	14	4 542	16	4 687	2	2	4
Montana	D	—	—	1	D	3	D	D	—	D
Nebraska	D	3	D	2	D	2	D	D	D	D
Nevada	7 563	1	D	4	D	6	D	Z	D	D
New Hampshire	S	6	D	3	D	4	2 861	S	D	D
New Jersey	82 918	32	57 380	17	13 376	30	12 161	5	7	Z
New Mexico	4 030	4	D	—	—	1	D	16	D	—
New York	249 883	43	79 096	15	45 330	82	125 456	3	6	Z
North Carolina	18 813	2	D	12	D	7	D	Z	D	D
North Dakota	^{\$5} 056	^{\$2}	D	1	D	—	—	50	D	D
Ohio	79 927	39	37 930	18	10 637	28	31 359	3	6	Z
Oklahoma	18 468	9	11 933	^{\$4}	^{\$601}	8	5 934	13	19	53
Oregon	19 557	11	12 294	4	4 838	8	2 425	3	5	Z
Pennsylvania	96 543	36	37 841	22	36 965	33	21 737	2	4	Z
Rhode Island	9 907	4	3 619	^{\$11}	^{\$766}	6	5 522	2	Z	60
South Carolina	S	5	D	4	1 702	2	D	S	D	Z
South Dakota	711	—	—	3	711	—	—	Z	—	Z
Tennessee	37 133	20	19 103	^{\$13}	^{\$3} 873	11	14 157	14	26	55
Texas	102 734	54	64 880	9	1 947	36	35 906	10	16	27
Utah	D	S	D	—	—	6	D	D	D	—
Vermont	349	—	—	2	D	3	D	13	—	D
Virginia	46 404	23	32 701	18	6 479	8	7 225	6	8	9
Washington	56 300	13	48 092	7	3 414	^{\$24}	4 794	1	Z	Z
West Virginia	7 246	S	^{\$1} 945	9	1 816	8	3 485	20	73	Z
Wisconsin	^{\$32} 678	19	^{\$29} 828	^{\$18}	1 878	7	972	53	58	27
Wyoming	D	—	—	1	D	—	—	D	—	D

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e, office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **All other nonresidential buildings.** Includes nonresidential buildings that are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military non-building such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

Building Equipment and Other Machinery Installation Contractors

1997

Issued August 1999

EC97C-2359E

1997 Economic Census

Construction

Industry Series



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Economics and Statistics Administration
U.S. CENSUS BUREAU



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Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
235950	Building equip & other machinery installation contractors	4 489	75 501	3 148 030	9 215 174	8 605 993	6 616 349	2 117 398	181 015
179600	Install or erection of bldg equip, special trade contr, n.e.c.	4 489	75 501	3 148 030	9 215 174	8 605 993	6 616 349	2 117 398	181 015

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—	
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers		
											A
235950, BUILDING EQUIP & OTHER MACHINERY INSTALLATION CONTRACTORS											
United States	4 489	75 501	56 211	54 835	55 680	57 155	57 174	3 148 030	2 260 145	1	
Alabama	67	1 060	857	821	866	802	942	38 077	29 020	5	
Alaska	9	55	34	31	33	35	38	3 146	1 943	Z	
Arizona	52	543	399	368	404	408	416	19 279	13 385	8	
Arkansas	51	524	380	407	387	367	360	18 938	12 876	5	
California	338	6 427	4 741	4 570	4 558	4 911	4 922	330 233	243 279	3	
Colorado	67	1 049	711	699	695	697	752	37 814	27 812	13	
Connecticut	57	926	676	672	670	685	677	44 343	32 822	1	
Delaware	28	327	259	266	254	241	275	9 372	6 468	30	
District of Columbia	4	222	174	178	178	177	161	8 324	6 215	Z	
Florida	183	5 327	4 117	4 086	4 042	4 284	4 055	197 673	139 228	1	
Georgia	135	1 986	1 564	1 547	1 486	1 572	1 651	67 659	50 979	2	
Hawaii*	16	367	272	287	275	268	256	20 970	15 904	Z	
Idaho	17	S	S	S	S	S	S	2 539	1 846	S	
Illinois	286	4 323	3 232	3 054	3 197	3 335	3 341	202 911	149 793	6	
Indiana	103	1 826	1 400	1 362	1 368	1 426	1 445	70 383	52 842	8	
Iowa	84	974	780	755	733	881	750	33 075	24 512	7	
Kansas	56	1 135	850	957	886	847	712	40 018	26 108	25	
Kentucky	74	1 364	925	895	961	948	897	49 817	35 090	16	
Louisiana	54	1 412	1 167	1 127	1 241	1 165	1 135	52 649	42 468	5	
Maine	25	738	614	677	712	523	544	30 983	22 861	1	
Maryland	81	1 958	1 442	1 443	1 448	1 444	1 431	87 687	62 724	1	
Massachusetts	127	1 855	1 361	1 344	1 365	1 354	1 382	93 985	69 654	3	
Michigan	174	2 836	2 228	2 113	2 053	2 266	2 481	138 809	106 733	2	
Minnesota	104	1 322	943	870	924	1 003	976	57 086	40 233	4	
Mississippi	42	396	333	328	326	324	352	10 855	7 109	24	
Missouri	80	1 110	845	796	786	904	893	47 851	34 813	3	
Montana	10	91	65	62	63	71	65	3 320	2 341	Z	
Nebraska	22	303	229	219	224	234	242	12 532	8 666	2	
Nevada	40	739	533	586	519	524	505	35 881	27 555	9	
New Hampshire	14	209	148	139	144	161	146	10 525	7 345	Z	
New Jersey	184	2 575	1 873	1 867	1 893	1 860	1 873	121 359	83 153	2	
New Mexico	11	367	336	278	327	352	388	8 546	6 924	Z	
New York	305	6 361	4 601	4 713	4 602	4 550	4 541	298 620	211 160	4	
North Carolina	174	2 076	1 585	1 666	1 550	1 538	1 538	66 576	49 583	6	
North Dakota	26	153	115	103	115	124	117	3 449	1 882	4	
Ohio	186	3 250	2 426	2 393	2 449	2 453	2 410	143 022	103 665	1	
Oklahoma	58	364	286	264	286	277	319	12 047	9 212	7	
Oregon	74	790	608	552	605	624	651	27 891	21 547	5	
Pennsylvania	231	3 964	2 767	2 407	2 796	2 834	3 030	165 068	106 793	5	
Rhode Island	12	120	82	80	77	86	86	6 121	4 335	Z	
South Carolina	51	843	682	665	685	676	701	26 865	20 269	Z	
South Dakota	6	43	26	24	24	28	29	1 730	1 073	Z	
Tennessee	143	3 129	2 066	1 907	1 960	2 179	2 217	106 594	71 290	18	
Texas	261	4 103	3 171	3 083	3 102	3 276	3 222	151 213	108 379	10	
Utah	31	350	277	239	285	279	306	13 266	9 949	12	
Vermont	5	91	35	28	36	39	38	2 634	1 125	Z	
Virginia	93	2 123	1 457	1 451	1 504	1 492	1 383	82 454	56 450	1	
Washington	79	1 142	881	868	939	895	821	50 693	37 620	3	
West Virginia	23	172	133	131	127	135	135	6 883	5 179	Z	
Wisconsin	131	1 963	1 437	1 381	1 436	1 452	1 480	75 670	47 393	10	
Wyoming	*6	*27	*23	S	S	*23	*24	*596	*544	70	

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
235950. BUILDING EQUIP & OTHER MACHINERY INSTALLATION CONTRACTORS										
United States	9 215 174	8 605 993	6 616 349	2 117 398	609 181	172 141	181 015	1 090 008	1	2
Alabama	97 960	93 672	75 795	D	4 289	1 904	2 641	15 787	3	6
Alaska	7 197	D	5 125	D	D	104	34	773	D	Z
Arizona	66 093	63 962	46 615	D	2 131	1 558	795	4 950	6	9
Arkansas	52 356	50 241	40 067	D	2 114	1 967	648	8 247	3	6
California	927 526	868 409	671 626	214 065	59 116	20 679	19 464	90 924	4	2
Colorado	130 635	119 530	88 565	D	11 105	1 470	1 178	6 529	1	7
Connecticut	131 752	128 450	104 023	24 733	3 302	2 352	2 405	11 222	Z	1
Delaware	36 225	³⁴ 968	²⁶ 343	11 459	1 257	⁶¹³	258	2 749	40	28
District of Columbia	20 494	D	15 732	D	D	D	86	1 263	D	Z
Florida	580 695	541 115	337 816	204 547	39 580	6 461	4 930	40 354	1	1
Georgia	190 144	180 737	141 200	41 630	9 407	4 612	4 938	24 381	2	2
Hawaii *	59 405	58 887	47 487	11 400	518	869	364	3 479	Z	Z
Idaho	10 023	D	7 811	D	D	S	D	S	D	D
Illinois	543 598	520 424	414 325	114 417	23 174	11 913	8 030	58 265	4	8
Indiana	201 338	172 322	142 342	36 012	29 016	2 794	7 140	53 709	5	4
Iowa	98 586	94 544	68 689	26 300	4 043	1 618	3 164	13 764	9	12
Kansas	132 910	115 777	89 789	29 923	17 133	2 846	⁴ 462	18 228	19	47
Kentucky	184 297	167 457	90 417	D	16 839	3 365	³ 978	23 052	20	12
Louisiana	138 373	137 714	105 154	32 607	658	4 063	4 047	16 994	2	22
Maine	54 556	D	47 977	4 537	D	2 407	312	5 093	D	Z
Maryland	255 122	246 185	185 232	60 987	8 937	4 560	2 638	17 461	1	3
Massachusetts	264 830	259 549	202 718	58 060	5 281	4 513	3 857	22 983	3	6
Michigan	522 812	380 545	316 856	71 352	142 267	8 184	14 795	79 332	2	8
Minnesota	167 463	160 622	123 793	42 687	6 841	3 593	3 277	23 683	2	11
Mississippi	38 149	35 639	26 543	D	2 510	780	781	11 234	5	5
Missouri	137 422	128 543	98 054	31 434	⁸ 879	3 873	2 043	16 545	5	3
Montana	9 790	9 695	6 815	D	95	176	110	1 393	Z	Z
Nebraska	31 096	30 741	22 816	D	355	645	495	5 444	1	3
Nevada	131 903	129 395	96 872	D	2 508	1 833	2 033	7 467	4	6
New Hampshire	25 618	24 620	18 147	D	998	215	393	2 645	Z	Z
New Jersey	335 584	323 628	245 464	85 166	11 957	5 894	5 404	36 929	1	3
New Mexico	22 672	22 070	19 830	2 240	602	459	197	808	Z	Z
New York	789 390	770 135	607 256	166 162	19 254	11 861	8 344	74 098	4	1
North Carolina	197 915	187 948	133 492	57 626	9 967	3 575	5 312	27 692	3	3
North Dakota	D	D	8 027	D	239	162	374	1 765	D	25
Ohio	406 010	367 838	298 086	76 361	38 172	7 990	11 727	67 718	1	1
Oklahoma	35 504	35 394	26 519	8 875	110	532	515	3 185	2	21
Oregon	74 565	70 484	59 652	15 414	4 081	2 203	1 442	9 730	3	3
Pennsylvania	481 478	449 232	370 251	82 698	32 246	9 480	7 360	60 138	5	2
Rhode Island	15 526	D	11 725	D	D	121	102	701	D	Z
South Carolina	76 131	71 219	56 760	D	4 912	1 716	1 241	20 457	Z	Z
South Dakota	D	D	3 695	624	D	129	47	150	D	Z
Tennessee	317 012	284 147	209 660	89 708	³² 865	5 784	13 915	60 103	7	10
Texas	535 028	525 115	391 951	135 656	9 913	7 255	6 466	39 045	10	2
Utah	43 115	42 521	31 475	11 046	594	979	2 025	5 039	14	8
Vermont	9 016	8 322	10 405	D	694	D	D	D	Z	D
Virginia	253 888	238 767	189 840	51 290	15 122	6 797	8 429	34 413	Z	Z
Washington	148 219	135 950	108 212	D	12 269	2 893	1 848	12 241	3	3
West Virginia	19 059	18 907	14 558	D	152	278	216	1 717	Z	Z
Wisconsin	186 622	176 604	153 821	33 404	10 018	3 809	6 314	40 849	5	25
Wyoming	D	D	⁹²⁴	D	-	⁵⁰	S	D	D	S

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
235950, BUILDING EQUIP & OTHER MACHINERY INSTALLATION CONTRACTORS			235950, BUILDING EQUIP & OTHER MACHINERY INSTALLATION CONTRACTORS—Con.		
Number of establishments in business during year	4 489	2	Selected costs	2 726 579	2
Number of proprietors and working partners	826	10	Cost of materials, components, and supplies	2 021 323	2
Total number of employees	75 501	1	Cost of construction work subcontracted out to others	609 181	3
Number of construction workers in March	54 835	1	Cost of selected power, fuels, and lubricants	96 075	1
Number of construction workers in May	55 680	1	Cost of electricity	15 346	1
Number of construction workers in August	57 155	1	Cost of natural gas and manufactured gas	6 118	1
Number of construction workers in November	57 174	1	Cost of gasoline and diesel fuel	68 816	1
Average number of construction workers	56 211	1	Cost of on-highway use of gasoline and diesel fuel	59 205	1
Number of other employees in March	19 594	3	Cost of off-highway use of gasoline and diesel fuel	9 611	2
Number of other employees in May	19 102	3	Cost of all other fuels and lubricants	5 795	1
Number of other employees in August	19 108	3	Rental cost for machinery, equipment, and buildings	172 141	1
Number of other employees in November	19 355	3	Rental cost for machinery and equipment	103 208	1
Average number of other employees	19 290	3	Rental cost for buildings	68 933	1
Payroll, all employees	3 148 030	1	Selected purchased services	143 409	1
Payroll, construction workers	2 260 145	1	Purchased communication services	69 377	2
Payroll, other employees	887 885	2	Cost of repairs to buildings and other structures	9 442	2
First-quarter payroll, all employees	729 398	1	Cost of repairs to machinery and equipment	64 590	1
Fringe benefits, all employees	874 937	1	Value of construction work	9 215 174	1
Legally required expenditures	434 520	1	Value of construction work on government owned projects ..	1 006 233	1
Voluntary expenditures	440 418	Z	Value of construction work on federally owned projects ..	324 375	1
Value of business done	9 342 927	1	Value of construction work on state and locally owned projects	681 857	1
Value of construction work	9 215 174	1	Value of construction work on privately owned projects	8 208 942	1
Value of construction work subcontracted in from others ..	3 342 185	1	Beginning-of-year gross book value of depreciable assets	952 691	1
Other business receipts	127 753	9	Capital expenditures, other than land	181 015	2
Net value of construction	8 605 993	1	Retirements and disposition of depreciable assets	43 699	2
Value added	6 616 349	1	End-of-year gross book value of depreciable assets	1 090 008	1
			Depreciation charges during year	104 970	2
			Number of establishments with inventories	1 339	4
			Value of construction work for establishments with inventories ..	4 084 845	1
			End of 1997, inventories of materials and supplies	127 109	2
			End of 1996, inventories of materials and supplies	114 197	2
			Number of establishments with no inventories	1 231	4
			Value of construction work for establishments with no inventories	2 642 767	3
			Number of establishments not reporting inventories	1 918	3
			Value of construction work for establishments not reporting inventories	2 487 562	2

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235950, BUILDING EQUIP & OTHER MACHINERY INSTALLATION CONTRACTORS											
Total	4 489	75 501	3 148 030	9 342 927	9 215 174	8 605 993	6 616 349	2 117 398	609 181	1	1
Establishments with 1 to 4 employees	S	3 685	109 499	365 184	363 829	D	260 103	D	D	5	D
Establishments with 5 to 9 employees	883	5 624	184 358	575 359	564 463	539 254	404 387	145 763	25 208	4	3
Establishments with 10 to 19 employees	847	11 164	402 748	1 244 581	1 219 991	1 160 381	845 364	339 608	59 609	5	5
Establishments with 20 to 49 employees	632	18 777	782 646	2 259 601	2 221 856	2 110 346	1 651 867	496 225	111 509	4	3
Establishments with 50 to 99 employees	225	15 205	726 526	2 167 253	2 137 762	2 035 825	1 594 471	470 845	101 937	Z	Z
Establishments with 100 to 249 employees	89	12 575	603 772	1 719 710	1 696 035	1 557 104	1 227 081	353 698	138 931	Z	Z
Establishments with 250 to 499 employees	15	4 852	203 660	664 646	664 646	539 808	465 465	74 343	124 838	Z	Z
Establishments with 500 to 999 employees	2	D	D	D	D	D	D	D	D	D	D
Establishments with 1,000 employees or more	1	D	D	D	D	D	D	D	D	D	D

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235950, BUILDING EQUIP & OTHER MACHINERY INSTALLATION CONTRACTORS											
Total	4 489	75 501	3 148 030	9 342 927	9 215 174	8 605 993	6 616 349	2 117 398	609 181	1	1
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$100,000 to \$249,999	692	1 923	40 636	115 923	115 221	111 483	81 450	30 736	3 738	9	7
Establishments with value of business done \$250,000 to \$499,999	684	3 066	80 895	241 821	239 611	233 764	174 956	61 019	5 847	6	6
Establishments with value of business done \$500,000 to \$999,999	819	7 246	212 312	574 612	570 771	553 951	420 617	137 176	16 820	9	6
Establishments with value of business done \$1,000,000 to \$2,499,999	725	10 685	417 137	1 170 084	1 150 138	1 103 353	832 988	290 311	46 785	4	4
Establishments with value of business done \$2,500,000 to \$4,999,999	451	12 712	532 301	1 550 956	1 515 947	1 439 243	1 114 049	360 203	76 704	4	5
Establishments with value of business done \$5,000,000 to \$9,999,999	238	12 217	567 051	1 674 958	1 637 794	1 548 959	1 202 901	383 222	88 835	Z	1
Establishments with value of business done \$10,000,000 or more	191	26 717	1 287 098	3 982 885	3 954 090	3 584 650	2 765 894	847 551	369 440	Z	Z

Table 7. **Value of Construction Work for Establishments With Payroll by Type of Construction: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
235950, BUILDING EQUIP & OTHER MACHINERY INSTALLATION CONTRACTORS								
Total	9 215 174	3 358 414	1 990 866	3 595 990	1	2	1	1
Building construction, total	8 196 748	3 096 288	1 780 206	3 320 254	1	2	1	1
Single-family houses, detached and attached	199 859	116 381	36 241	47 237	10	15	10	7
Single-family houses, detached	155 112	94 191	25 212	35 710	9	13	14	9
Single-family houses, attached	44 747	22 190	11 030	11 527	17	34	6	5
Apartment buildings, apartment type condominiums and cooperatives	732 310	215 133	117 669	399 509	8	20	5	6
Manufacturing and light industrial buildings	2 761 685	910 517	901 105	950 063	2	4	2	3
Manufacturing and light industrial warehouses	286 398	93 146	92 382	100 870	2	2	2	3
Hotels and motels	580 095	290 934	57 572	231 590	1	3	1	1
Office buildings	1 507 046	614 070	203 416	689 560	Z	Z	1	1
All other commercial buildings, nec	702 739	227 827	161 289	313 623	3	4	5	1
Commercial warehouses	100 524	53 583	23 767	23 174	6	10	5	13
Educational buildings	361 266	149 907	49 457	161 902	1	1	3	2
Health care and institutional buildings	490 359	161 757	74 337	254 265	1	1	2	1
Public safety buildings	103 747	30 364	17 211	56 172	1	1	3	Z
Farm buildings, nonresidential	93 050	32 111	17 723	43 216	13	11	39	9
All other nonresidential buildings	277 670	200 560	28 037	49 073	12	17	3	2
Nonbuilding construction, total	748 522	262 125	210 660	275 736	2	5	2	1
Power plants	113 999	23 887	13 188	76 923	1	Z	1	1
Blast furnaces, petroleum refineries, chemical complexes, etc	445 883	145 710	158 515	141 657	1	Z	2	1
Other nonbuilding construction, nec	188 640	92 528	38 957	57 155	7	15	5	3
Construction work, nsk	269 904	X	X	X	2	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—											
				For all types	For specialized type				B	D	H									
												A	B	C	D	E	F	G	H	B
235950, BUILDING EQUIP & OTHER MACHINERY INSTALLATION CONTRACTORS																				
Total	4 489	75 501	3 148 030	9 215 174	X	8 605 993	6 616 349	609 181	1	1	3									
Establishments not specializing ..	1 380	25 447	1 224 559	3 509 733	X	3 434 804	2 611 052	74 929	1	1	20									
Establishments specializing 51 percent or more	3 109	50 054	1 923 472	5 705 441	5 221 330	5 171 189	4 005 297	534 252	2	2	1									
Single-family houses, detached and attached																				
All establishments specializing	321	1 426	41 573	129 858	112 987	127 635	88 075	2 223	15	9	21									
Specialization 100 percent	205	723	16 313	54 056	54 056	52 424	39 938	S	28	18	S									
Specialization 90 to 99 percent ...	62	242	6 763	24 389	23 500	24 070	15 188	319	24	23	13									
Specialization 80 to 89 percent ...	S	D	D	10 533	8 710	D	D	D	D	15	D									
Specialization 70 to 79 percent ...	16	98	2 744	D	D	9 412	6 503	D	10	D	D									
Specialization 60 to 69 percent ...	9	254	13 008	30 755	19 509	30 605	19 762	S	Z	Z	S									
Specialization 51 to 59 percent ...	2	D	D	D	D	D	D	-	D	D	-									
Apartment buildings, apartment type condominiums and cooperatives																				
All establishments specializing	115	2 162	89 289	273 991	228 101	269 507	208 568	4 484	22	23	17									
Specialization 100 percent	46	175	583	483	483	748	772	S	57	57	S									
Specialization 90 to 99 percent ...	17	164	9 380	23 674	21 872	21 942	15 736	1 732	7	7	45									
Specialization 80 to 89 percent ...	11	162	6 535	17 536	14 333	D	11 449	D	Z	Z	D									
Specialization 70 to 79 percent ...	S	870	42 217	114 012	S	S	S	1 308	26	30	Z									
Specialization 60 to 69 percent ...	11	168	8 122	S	S	S	S	254	Z	S	Z									
Specialization 51 to 59 percent ...	4	83	2 452	7 550	4 121	D	3 943	D	Z	Z	D									
Office buildings																				
All establishments specializing	271	5 625	260 181	731 367	587 241	717 925	532 853	13 442	1	1	1									
Specialization 100 percent	144	2 085	82 778	243 753	243 753	237 470	184 747	6 283	1	1	1									
Specialization 90 to 99 percent ...	14	337	18 865	43 150	40 450	42 163	17 803	987	Z	Z	Z									
Specialization 80 to 89 percent ...	42	1 302	54 480	157 075	128 053	154 776	109 413	2 299	1	1	8									
Specialization 70 to 79 percent ...	25	480	26 550	74 166	55 264	72 933	47 727	1 233	Z	Z	Z									
Specialization 60 to 69 percent ...	24	244	11 326	37 098	23 280	36 385	29 819	713	1	1	2									
Specialization 51 to 59 percent ...	21	1 178	66 203	176 125	96 441	174 198	143 344	1 927	Z	Z	Z									
All other commercial buildings, nec																				
All establishments specializing	244	2 639	95 094	290 431	261 427	273 146	213 250	17 285	5	6	4									
Specialization 100 percent	194	1 922	68 176	200 424	200 424	187 255	151 865	13 169	6	8	5									
Specialization 90 to 99 percent ...	S	S	S	S	S	S	S	S	S	S	S									
Specialization 80 to 89 percent ...	11	134	3 377	10 781	9 019	9 630	5 724	S	19	16	S									
Specialization 70 to 79 percent ...	11	162	6 244	18 007	12 959	17 379	13 555	628	14	14	11									
Specialization 60 to 69 percent ...	5	57	1 559	5 675	3 632	5 584	1 968	91	35	36	30									
Specialization 51 to 59 percent ...	7	253	11 874	41 331	21 949	40 239	27 474	1 092	Z	Z	Z									

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
235950, BUILDING EQUIP & OTHER MACHINERY INSTALLATION CONTRACTORS		
Total	9 342 927	1
Special trade contractors, total	8 820 515	1
Elevator installation, service, and repair contractor	4 022 250	1
Escalator installation, service, and repair contractor	312 185	1
Millwright and machine rigging contractor	4 192 044	2
Reinforcing steel contractor	67 845	Z
Structural steel erection contractor	226 191	1
Other construction activities, nec	347 187	4
Other business activities secondary to construction activities, total	125 798	9
Other business activities, secondary to construction activities, nec	125 798	9
Kind of business activity, nsk	49 428	Z

Table 10. **Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
235950, BUILDING EQUIP & OTHER MACHINERY INSTALLATION CONTRACTORS											
Total	4 489	75 501	3 148 030	9 215 174	X	8 605 993	6 616 349	609 181	1	1	3
Establishments not specializing	134	5 714	195 335	530 616	X	467 040	306 642	63 576	4	6	23
Establishments specializing 51 percent or more.	4 355	69 787	2 952 695	8 684 558	7 969 467	8 138 954	6 309 706	545 605	1	1	1
Elevator installation, service, and repair contractor											
All establishments specializing	1 626	31 066	1 518 860	4 294 169	4 009 419	4 246 457	3 200 079	47 712	1	1	1
Specialization 100 percent	1 387	21 656	1 029 880	2 934 863	2 934 863	2 904 439	2 136 354	30 424	1	1	1
Specialization 90 to 99 percent	105	3 355	169 068	454 364	427 582	448 268	348 926	6 096	Z	Z	Z
Specialization 80 to 89 percent	43	1 453	71 271	178 976	146 723	D	165 359	D	1	2	D
Specialization 70 to 79 percent	74	3 785	202 980	619 265	436 200	D	465 524	D	1	1	D
Specialization 60 to 69 percent	13	D	D	D	D	D	73 501	D	D	D	D
Specialization 51 to 59 percent	3	D	D	D	D	D	10 414	D	D	D	D
Millwright and machine rigging contractor											
All establishments specializing	2 639	37 989	1 407 227	4 303 555	3 877 772	3 808 630	3 039 105	494 925	2	2	2
Specialization 100 percent	2 040	22 813	808 034	2 522 640	2 522 640	2 257 172	1 764 338	265 468	4	3	3
Specialization 90 to 99 percent	174	3 389	134 397	445 939	424 925	359 609	281 226	86 329	7	8	1
Specialization 80 to 89 percent	111	3 701	146 471	391 759	327 387	345 275	274 642	46 485	3	2	1
Specialization 70 to 79 percent	136	3 419	139 330	401 499	292 274	354 401	305 328	47 098	3	2	3
Specialization 60 to 69 percent	98	2 242	81 512	235 663	147 343	207 944	169 326	27 720	4	3	2
Specialization 51 to 59 percent	81	2 425	97 483	306 055	163 204	284 230	244 244	21 826	2	1	1

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
235950, BUILDING EQUIP & OTHER MACHINERY INSTALLATION CONTRACTORS										
United States	9 215 174	2 457	5 651 767	2 543	1 359 163	1 983	2 204 244	1	1	1
Alabama	133 981	41	69 880	47	52 255	26	11 846	1	2	Z
Alaska	14 626	8	D	14	7 429	1	D	Z	D	Z
Arizona	77 218	^{s43}	49 504	29	11 166	9	16 547	5	7	4
Arkansas	60 123	22	33 612	43	13 482	29	13 030	2	1	4
California	878 261	169	499 746	57	36 522	165	341 993	4	7	Z
Colorado	123 168	^{s46}	71 759	38	8 843	21	42 566	1	2	3
Connecticut	149 208	25	71 580	40	20 106	31	57 522	Z	Z	1
Delaware	45 720	^{s19}	23 245	19	19 571	9	2 904	18	36	Z
District of Columbia	50 516	3	D	26	31 780	1	D	Z	D	Z
Florida	394 936	86	315 290	66	20 470	97	59 176	1	1	3
Georgia	281 446	54	125 760	97	109 007	77	46 679	1	1	Z
Hawaii *	14 626	12	53 170	3	D	4	D	D	Z	D
Idaho	D	4	D	19	D	13	D	D	D	D
Illinois	534 007	139	350 967	110	42 241	147	140 799	4	3	Z
Indiana	277 901	53	123 095	127	112 703	49	42 103	3	2	2
Iowa	113 218	38	49 943	74	41 174	^{s42}	^{s22} 101	12	3	25
Kansas	122 339	41	58 723	31	53 439	13	10 178	8	16	8
Kentucky	182 207	52	128 189	74	36 034	18	17 984	18	26	Z
Louisiana	135 551	37	102 243	35	11 111	17	22 197	1	2	1
Maine	14 178	7	10 314	10	2 737	^{s17}	1 128	1	Z	Z
Maryland	215 247	39	132 790	68	23 189	39	59 268	3	Z	24
Massachusetts	265 599	77	194 226	32	20 723	49	50 650	3	4	2
Michigan	469 773	96	375 750	58	19 197	78	74 827	2	2	1
Minnesota	150 084	55	99 431	39	5 197	49	45 456	3	5	2
Mississippi	68 682	13	21 285	68	37 133	^{s29}	10 265	4	Z	3
Missouri	126 770	55	87 183	84	23 603	22	15 983	5	7	7
Montana	9 841	8	D	6	D	1	D	Z	D	D
Nebraska	41 538	12	15 689	27	14 259	10	11 589	1	Z	Z
Nevada	132 215	21	71 451	17	8 138	19	52 625	3	6	1
New Hampshire	19 650	9	8 793	20	8 686	5	2 171	Z	Z	Z
New Jersey	301 332	106	161 880	90	45 738	73	93 715	2	1	5
New Mexico	24 655	7	20 806	8	2 597	4	1 252	Z	Z	Z
New York	827 854	155	537 281	83	65 013	147	225 560	4	1	1
North Carolina	241 003	101	154 072	114	58 913	71	28 018	3	4	1
North Dakota	25 708	17	D	10	D	9	D	2	D	D
Ohio	425 857	104	226 471	123	76 079	81	123 307	1	2	Z
Oklahoma	47 598	^{s36}	25 746	44	17 402	21	4 449	2	1	2
Oregon	79 834	45	54 602	17	14 262	28	10 970	3	4	Z
Pennsylvania	439 583	110	280 111	112	48 327	119	111 145	5	2	1
Rhode Island	19 424	7	10 804	21	6 113	5	2 507	Z	Z	Z
South Carolina	91 365	29	51 027	80	24 409	22	15 929	Z	Z	1
South Dakota	7 926	6	3 831	17	4 095	—	—	1	Z	3
Tennessee	272 333	73	151 748	69	23 280	69	97 306	12	19	2
Texas	547 121	142	338 848	89	37 965	117	170 308	9	14	19
Utah	43 111	15	28 112	12	2 585	16	^{s12} 413	14	5	Z
Vermont	9 772	5	7 971	5	1 801	—	—	Z	Z	Z
Virginia	253 544	50	158 420	117	55 262	42	39 862	2	Z	9
Washington	165 850	51	120 916	42	28 673	27	16 262	3	3	Z
West Virginia	33 431	12	11 200	46	16 636	11	5 595	1	Z	2
Wisconsin	190 705	97	127 197	51	13 636	34	49 871	5	8	1
Wyoming	10 187	^{s5}	D	13	D	1	D	26	D	D

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of socialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e, office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **All other nonresidential buildings.** Includes nonresidential buildings that are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military non-building such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

1629 Heavy construction, n.e.c. (pt)

7353 Heavy construction equipment, rental and leasing (pt)

8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

1721 Painting and paper hanging special trade contractors

1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

All Other Special Trade Contractors

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All Other Special Trade Contractors

1997

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1997 Economic Census

Construction

Industry Series



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division	301-457-4673
Service Sector Statistics Division	301-457-2668

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

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Construction

SCOPE

Construction, sector 23, includes establishments primarily engaged in construction work that have one or more paid employees. Construction work includes new construction work, additions, alterations, and repairs. Establishments identified as construction management firms are also included. The construction sector is divided into three types of activity or subsectors.

The Building, Developing, and General Contracting subsector includes establishments responsible for the construction of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in the subsector. The construction work may be done for others and performed by custom builders, general contractors, design builders, or turnkey contractors. This construction activity may be for sale as performed by speculative or operative builders.

The Heavy Construction subsector includes establishments engaged in the construction of heavy engineering and industrial projects (except buildings) such as highways, power plants, and pipelines. Establishments in this subsector usually assume responsibility for entire non-building projects, but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction such as grading for highways. Kinds of establishments include heavy construction general contractors, and design builders.

The Special Trade Contractors subsector includes establishments engaged in specialized construction activities such as plumbing, painting, and electrical work. The activities in this subsector may be subcontracted from builders or general contractors, or the work may be performed directly for project owners. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

GENERAL

A list of publications that provide statistics on construction, sector 23, follows.

Industry reports. There are 28 separate industry reports. They present data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in

Appendix B. These reports include statistics such as number of establishments, employment, payroll, value added, cost of materials, value of business done, and capital expenditures. Explanations of these and other terms may be found in Appendix A. The industry reports also include selected statistics for states.

Geographic area reports. There is a separate report for each state, the District of Columbia, and the United States. They present statistics similar to the industry reports for each state. They also present selected six-digit NAICS level data.

Subject reports. The Industry series, U.S. Summary, and Geographic Area series, U.S. Summary, reports present selected statistics from the individual industry and geographic area reports, as well as higher level aggregations.

GEOGRAPHIC AREAS COVERED

The area reports for the construction industries contain state and regional level data. No substate data are available.

While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work.

The regions are made up of groups of states as follows:

NORTHEAST

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska

North Dakota
Ohio
South Dakota
Wisconsin

SOUTH

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) had a major impact on the comparability of data between the 1992 and 1997 censuses. Less than half of the industries in the construction sector of NAICS have comparable industries in the Standard Industrial Classification (SIC) system that was used for past censuses. Because of the lack of comparable data, historic data are not shown for this sector.

Lead paint removal and asbestos abatement left the construction sector with the introduction of NAICS. Many changes took place within the sector, or from business

activity coming into the sector. Much of the change came from adding management services to each of the construction industries in the building, developing, and general contracting subsector and the heavy construction subsector. Also, land subdividers and developers, and rental of construction equipment with an operator were added to the sector.

Another change is that data for establishments with no employees are no longer included in the construction reports, but are available in other report series.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld. Suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in construction sector census data.

Data contained in the 1997 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

Table 1. 1997 Data Showing the Derivation of the NAICS Classification Based on the SIC Classification

[NAICS codes appear in bold type. Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For a more detailed title for each SIC code shown, see Appendix F]

NAICS and SIC code	Industry	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
		A	B	C	D	E	F	G	H
235990	All other special trade contractors	25 932	198 141	5 166 152	17 401 280	15 783 854	10 513 530	5 821 174	452 047
179940	Special trade contractors, n.e.c. (pt)	25 932	198 141	5 166 152	17 401 280	15 783 854	10 513 530	5 821 174	452 047

Table 2. Employment Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		All	Construction workers	January to March	April to June	July to September	October to December	All employees	Construction workers	
235990, ALL OTHER SPECIAL TRADE CONTRACTORS										
United States	25 932	198 141	146 894	135 026	150 927	155 716	145 908	5 166 152	3 447 601	1
Alabama	363	2 463	1 874	1 804	1 878	1 960	1 855	54 471	38 205	6
Alaska	57	298	221	D	216	D	233	9 961	7 192	10
Arizona	626	6 253	4 525	4 583	4 609	4 563	4 344	162 251	103 032	3
Arkansas	173	1 158	863	787	866	939	861	24 195	16 419	15
California	2 962	24 783	18 668	17 710	18 629	19 519	18 815	688 769	461 931	3
Colorado	550	3 374	2 575	2 331	2 707	2 766	2 496	84 112	53 764	7
Connecticut	333	2 168	1 537	1 199	1 743	1 748	1 459	66 552	41 652	6
Delaware	112	606	491	499	550	491	426	17 250	12 916	9
District of Columbia	6	D	D	25	D	22	D	831	D	D
Florida	2 057	14 014	9 685	9 360	9 638	10 277	9 465	338 550	204 435	4
Georgia	843	7 361	5 835	5 703	5 839	5 852	5 949	193 217	138 734	6
Hawaii *	98	848	595	549	557	621	653	25 787	16 655	9
Idaho	171	837	666	481	761	728	692	15 878	12 055	27
Illinois	882	6 981	4 973	4 508	4 964	5 223	5 199	229 073	152 984	5
Indiana	457	3 709	2 781	2 310	3 041	3 025	2 748	90 049	62 886	7
Iowa	179	1 218	885	827	924	981	808	29 212	18 268	15
Kansas	168	1 226	905	799	906	997	919	28 593	19 286	7
Kentucky	280	1 805	1 307	1 275	1 295	1 341	1 319	38 049	23 069	10
Louisiana	397	6 228	5 168	5 092	5 181	5 287	5 110	160 158	122 441	4
Maine	142	856	655	526	729	710	656	18 183	12 288	16
Maryland	584	5 571	3 993	3 658	4 086	4 164	4 064	150 478	96 896	7
Massachusetts	571	4 004	2 857	2 278	3 161	3 283	2 707	116 704	77 443	5
Michigan	747	6 023	4 286	3 810	4 387	4 552	4 393	170 493	113 421	6
Minnesota	355	2 742	2 131	1 789	2 406	2 322	2 008	70 992	51 148	9
Mississippi	170	1 064	D	658	809	D	D	25 150	16 836	14
Missouri	547	5 465	4 152	3 967	4 441	4 167	4 031	142 847	98 883	5
Montana	105	359	291	190	306	341	326	D	D	13
Nebraska	172	1 267	954	870	991	1 024	931	28 255	18 405	7
Nevada	257	2 676	1 994	2 043	2 052	1 973	1 908	78 208	48 778	5
New Hampshire	131	935	717	439	766	856	808	22 222	14 891	15
New Jersey	848	5 679	4 162	3 389	4 636	4 716	3 905	160 111	107 118	6
New Mexico	226	1 221	823	812	860	829	791	27 018	16 872	15
New York	1 437	10 232	7 183	5 811	7 895	8 018	7 010	299 013	187 302	2
North Carolina	895	5 796	4 517	D	D	4 656	D	D	D	5
North Dakota	41	423	337	255	349	381	364	11 569	8 574	9
Ohio	873	6 708	4 559	3 950	4 733	5 000	4 551	168 689	101 827	9
Oklahoma	334	1 660	1 232	1 201	1 195	1 203	1 203	34 598	24 328	12
Oregon	346	1 974	1 539	1 431	1 562	1 612	1 550	55 763	38 135	9
Pennsylvania	984	7 309	5 510	4 810	5 731	6 221	5 277	186 675	125 415	5
Rhode Island	99	787	575	445	609	719	527	25 558	19 838	12
South Carolina	408	2 388	1 700	1 619	1 709	1 814	1 656	48 139	32 080	11
South Dakota	63	298	D	D	D	259	254	6 398	4 662	32
Tennessee	363	2 766	1 916	1 733	1 917	2 036	1 979	71 068	42 359	11
Texas	2 187	20 653	16 060	15 546	15 837	16 562	16 297	511 799	360 461	4
Utah	251	1 285	874	841	905	918	891	29 034	18 828	9
Vermont	77	D	D	D	D	D	D	6 765	4 881	D
Virginia	703	5 048	3 702	3 408	3 854	3 866	3 680	117 987	78 927	6
Washington	710	4 037	3 034	2 895	3 160	3 147	2 935	104 014	71 044	8
West Virginia	124	831	D	D	620	651	629	20 696	14 537	11
Wisconsin	357	1 942	1 337	1 203	1 381	1 467	1 299	54 169	34 413	6
Wyoming	110	394	D	D	283	D	328	8 833	6 217	21

Table 3. General Statistics for Establishments With Payroll by State: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Rental cost of machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	B	G
235990, ALL OTHER SPECIAL TRADE CONTRACTORS										
United States	17 401 280	15 783 854	10 513 530	5 821 174	1 617 426	396 088	452 047	2 858 463	1	2
Alabama	177 526	167 677	115 076	60 120	9 849	3 398	5 132	31 970	6	14
Alaska	D	D	18 750	D	D	579	D	D	D	D
Arizona	576 039	483 662	313 276	192 057	92 378	11 325	14 516	59 660	3	7
Arkansas	D	D	64 012	D	D	D	2 953	25 666	D	39
California	2 335 048	2 098 319	1 392 296	750 962	236 729	60 595	56 785	330 251	2	4
Colorado	D	282 031	189 716	D	D	6 389	7 752	51 990	8	10
Connecticut	196 978	184 044	118 877	69 068	12 935	4 198	5 300	39 124	6	8
Delaware	D	D	D	D	1 846	D	D	7 819	D	D
District of Columbia	D	D	D	\$1 049	D	\$119	D	D	D	D
Florida	1 454 947	1 218 772	757 343	495 240	236 175	24 742	29 756	204 963	4	7
Georgia	604 748	560 976	371 671	D	43 772	14 900	14 768	86 616	5	14
Hawaii *	82 708	78 428	54 627	30 915	4 280	2 720	D	15 027	7	D
Idaho	D	D	34 969	D	D	D	D	D	D	D
Illinois	669 031	614 317	424 263	200 477	54 714	15 112	15 327	110 622	3	8
Indiana	298 473	283 451	192 655	101 218	15 021	6 988	5 638	39 136	11	9
Iowa	98 641	93 778	63 954	36 287	4 862	1 287	2 561	19 872	15	18
Kansas	89 951	85 087	56 470	34 696	4 864	1 930	2 633	18 561	8	14
Kentucky	128 407	121 263	84 142	44 750	7 143	3 777	3 358	29 650	8	13
Louisiana	428 866	395 540	276 574	128 373	33 326	9 216	8 772	56 434	3	5
Maine	86 509	D	50 155	D	D	D	3 755	25 547	D	25
Maryland	486 990	434 523	286 091	158 931	52 467	10 259	14 330	63 650	6	9
Massachusetts	D	D	246 241	D	32 164	D	10 504	67 875	D	7
Michigan	531 452	486 537	341 050	161 126	44 915	12 938	13 327	89 207	5	10
Minnesota	229 895	210 086	145 402	D	19 809	5 265	6 898	37 570	10	18
Mississippi	99 104	92 361	64 939	D	6 743	D	D	D	16	D
Missouri	410 972	389 669	277 776	127 023	21 302	7 572	10 172	62 086	4	8
Montana	37 512	33 997	24 823	16 052	3 514	454	1 052	8 961	16	17
Nebraska	94 985	D	53 073	D	D	D	D	D	D	D
Nevada	285 625	247 708	155 847	99 551	37 918	6 258	8 130	48 812	6	11
New Hampshire	72 344	67 783	46 474	D	4 561	1 554	1 900	19 022	15	28
New Jersey	495 881	460 633	321 250	155 086	35 247	12 729	12 296	87 260	5	10
New Mexico	114 940	105 232	64 032	D	9 708	\$3 594	D	23 572	19	D
New York	1 049 033	940 298	617 599	356 464	108 735	23 963	28 159	203 724	2	8
North Carolina	437 621	D	262 517	D	D	D	D	D	D	D
North Dakota	D	D	28 592	D	8 890	1 009	D	D	D	D
Ohio	521 456	489 579	334 573	180 267	31 876	12 228	13 301	99 704	7	11
Oklahoma	118 718	112 301	76 149	39 002	6 418	D	5 657	29 274	14	22
Oregon	185 162	171 235	115 665	60 139	13 927	4 092	4 141	25 977	8	13
Pennsylvania	616 886	577 267	384 266	218 581	39 620	13 550	17 868	126 784	4	9
Rhode Island	99 298	82 187	54 170	D	\$17 111	2 143	2 300	15 531	12	15
South Carolina	169 721	156 108	100 294	67 217	13 613	4 754	4 465	27 502	9	15
South Dakota	21 609	20 784	17 025	6 398	825	D	1 017	6 138	25	33
Tennessee	228 542	210 189	142 161	80 521	18 354	4 475	6 377	36 833	10	13
Texas	1 759 188	1 561 521	1 036 995	581 652	197 668	42 601	44 286	245 364	4	9
Utah	D	106 948	68 057	D	D	2 222	3 021	18 892	12	30
Vermont	D	D	D	D	D	D	D	D	D	D
Virginia	371 370	344 052	230 232	127 957	27 319	8 964	8 926	67 589	5	8
Washington	318 869	303 701	204 909	115 596	15 169	8 681	10 059	61 795	5	10
West Virginia	64 086	60 614	45 931	19 587	3 471	D	D	\$13 750	10	D
Wisconsin	205 821	184 530	114 233	77 961	21 290	4 159	5 945	38 949	6	16
Wyoming	30 012	D	21 803	D	D	D	D	D	D	D

Table 4. Detailed Statistics for Establishments With Payroll: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)	Item	Value	Relative standard error of estimate (percent)
235990, ALL OTHER SPECIAL TRADE CONTRACTORS			235990, ALL OTHER SPECIAL TRADE CONTRACTORS—Con.		
Number of establishments in business during year	25 932	1	Selected costs	7 438 599	1
Number of proprietors and working partners	9 360	3	Cost of materials, components, and supplies	5 491 285	1
Total number of employees	198 141	1	Cost of construction work subcontracted out to others	1 617 426	2
Number of construction workers in March	135 026	1	Cost of selected power, fuels, and lubricants	329 889	1
Number of construction workers in May	150 927	1	Cost of electricity	57 090	2
Number of construction workers in August	155 716	1	Cost of natural gas and manufactured gas	11 515	4
Number of construction workers in November	145 908	1	Cost of gasoline and diesel fuel	246 736	1
Average number of construction workers	146 894	1	Cost of on-highway use of gasoline and diesel fuel	212 354	1
Number of other employees in March	50 710	1	Cost of off-highway use of gasoline and diesel fuel	34 382	3
Number of other employees in May	51 332	1	Cost of all other fuels and lubricants	14 548	3
Number of other employees in August	52 665	1	Rental cost for machinery, equipment, and buildings	396 088	1
Number of other employees in November	50 281	1	Rental cost for machinery and equipment	222 693	2
Average number of other employees	51 247	1	Rental cost for buildings	173 396	2
Payroll, all employees	5 166 152	1	Selected purchased services	407 839	1
Payroll, construction workers	3 447 601	1	Purchased communication services	185 081	1
Payroll, other employees	1 718 551	1	Cost of repairs to buildings and other structures	26 053	3
First-quarter payroll, all employees	1 097 400	1	Cost of repairs to machinery and equipment	196 705	2
Fringe benefits, all employees	1 075 046	1	Value of construction work	17 401 280	1
Legally required expenditures	776 237	1	Value of construction work on government owned projects	2 985 249	2
Voluntary expenditures	298 809	1	Value of construction work on federally owned projects	729 268	6
Value of business done	17 952 130	1	Value of construction work on state and locally owned projects	2 255 981	2
Value of construction work	17 401 280	1	Value of construction work on privately owned projects	14 416 031	1
Value of construction work subcontracted in from others	7 134 880	1	Beginning-of-year gross book value of depreciable assets	2 502 755	1
Other business receipts	550 850	3	Capital expenditures, other than land	452 047	2
Net value of construction	15 783 854	1	Retirements and disposition of depreciable assets	96 338	10
Value added	10 513 530	1	End-of-year gross book value of depreciable assets	2 858 463	1
			Depreciation charges during year	336 597	2
			Number of establishments with inventories	8 280	2
			Value of construction work for establishments with inventories ..	9 728 729	2
			End of 1997, inventories of materials and supplies	337 253	2
			End of 1996, inventories of materials and supplies	332 604	2
			Number of establishments with no inventories	6 383	3
			Value of construction work for establishments with no inventories	3 126 621	2
			Number of establishments not reporting inventories	11 269	2
			Value of construction work for establishments not reporting inventories	4 545 930	1

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
	A	B	C	D	E	F	G	H	I	B	F	
235990, ALL OTHER SPECIAL TRADE CONTRACTORS												
Total	25 932	198 141	5 166 152	17 952 130	17 401 280	15 783 854	10 513 530	5 821 174	1 617 426	1	1	
Establishments with 1 to 4 employees	15 355	29 546	556 885	2 724 400	2 696 705	2 428 581	1 511 652	944 624	268 124	2	3	
Establishments with 5 to 9 employees	5 365	34 611	757 527	2 959 612	2 886 474	2 615 456	1 684 032	1 004 562	271 018	3	3	
Establishments with 10 to 19 employees	3 284	43 822	1 104 276	3 869 505	3 748 304	3 414 421	2 295 671	1 239 952	333 883	3	2	
Establishments with 20 to 49 employees	1 500	43 356	1 250 988	4 083 568	3 924 115	3 559 852	2 396 399	1 322 905	364 263	2	2	
Establishments with 50 to 99 employees	300	19 795	638 747	1 874 774	1 801 806	1 637 147	1 142 375	567 740	164 659	1	1	
Establishments with 100 to 249 employees	99	14 823	490 452	1 426 207	1 370 446	1 227 677	848 067	435 371	142 769	Z	Z	
Establishments with 250 to 499 employees	20	6 656	223 012	586 266	553 496	511 617	368 203	176 184	41 879	Z	Z	
Establishments with 500 to 999 employees	9	5 531	144 265	427 798	419 935	389 104	267 131	129 836	30 831	Z	Z	
Establishments with 1,000 employees or more	—	—	—	—	—	—	—	—	—	—	—	

Table 6. Selected Statistics for Establishments With Payroll by Dollar Value of Business Done Size Class: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	Number of establishments	Total number of employees	Total payroll	Dollar value of business done	Value of construction work	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—	
	A	B	C	D	E	F	G	H	I	B	F
235990, ALL OTHER SPECIAL TRADE CONTRACTORS											
Total	25 932	198 141	5 166 152	17 952 130	17 401 280	15 783 854	10 513 530	5 821 174	1 617 426	1	1
Establishments with value of business done less than \$25,000	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$25,000 to \$49,999	S	S	S	S	S	S	S	S	S	S	S
Establishments with value of business done \$50,000 to \$99,999	S	5 054	65 942	S	S	S	S	78 775	S	6	S
Establishments with value of business done \$100,000 to \$249,999	6 627	17 716	297 104	1 090 344	1 081 418	1 026 874	659 113	376 687	54 543	4	3
Establishments with value of business done \$250,000 to \$499,999	5 197	25 815	495 416	1 818 519	1 792 258	1 694 414	1 087 514	633 161	97 844	4	3
Establishments with value of business done \$500,000 to \$999,999	3 635	31 554	702 102	2 531 070	2 464 029	2 274 801	1 511 621	830 221	189 228	3	3
Establishments with value of business done \$1,000,000 to \$2,499,999	2 867	46 814	1 271 851	4 393 324	4 258 910	3 887 756	2 578 541	1 443 628	371 155	3	3
Establishments with value of business done \$2,500,000 to \$4,999,999	835	25 587	801 766	2 834 602	2 720 292	2 405 161	1 632 255	887 217	315 131	2	2
Establishments with value of business done \$5,000,000 to \$9,999,999	320	17 508	614 807	2 140 320	2 057 410	1 798 248	1 190 495	690 662	259 163	1	2
Establishments with value of business done \$10,000,000 or more	140	25 755	893 441	2 817 365	2 703 054	2 386 978	1 642 760	858 529	316 076	Z	1

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
235990, ALL OTHER SPECIAL TRADE CONTRACTORS								
Total	17 401 280	10 035 157	3 522 411	3 590 221	1	1	2	2
Building construction, total	9 862 392	5 080 225	2 591 652	2 190 516	1	2	3	2
Single-family houses, detached and attached	2 270 617	1 096 842	631 971	541 804	3	3	6	3
Single-family houses, detached	2 041 493	974 004	576 707	490 782	3	3	7	4
Single-family houses, attached	229 124	122 838	55 264	51 022	6	8	10	8
Apartment buildings, apartment type condominiums and cooperatives	387 954	188 498	104 613	94 843	6	10	7	8
Manufacturing and light industrial buildings	1 167 242	526 778	262 573	377 892	2	3	4	4
Manufacturing and light industrial warehouses	241 575	138 130	48 626	54 819	6	7	8	13
Hotels and motels	230 200	169 793	30 008	30 398	7	9	9	5
Office buildings	1 685 313	988 453	416 437	280 423	3	3	4	5
All other commercial buildings, nec	2 236 563	988 839	697 490	550 235	4	3	7	7
Commercial warehouses	174 618	114 512	31 730	28 376	10	16	8	7
Religious buildings	100 603	50 154	25 562	24 888	3	3	9	8
Educational buildings	415 587	209 517	138 379	67 690	4	5	7	9
Health care and institutional buildings	250 795	141 345	67 541	41 909	4	6	4	7
Public safety buildings	145 542	104 036	28 949	12 557	12	15	11	6
Other building construction	555 784	363 327	107 773	84 684	6	7	9	13
Nonbuilding construction, total	7 285 396	4 954 932	930 760	1 399 704	1	2	2	2
Highways, streets, and related work	230 461	139 382	45 349	45 731	6	8	13	8
Sewers, water mains, and related facilities	161 945	102 162	26 213	33 570	9	11	10	9
Power plants	160 909	31 881	15 979	113 049	2	5	3	2
Blast furnaces, petroleum refineries, chemical complexes, etc	520 646	86 386	74 876	359 385	1	2	2	1
Outdoor swimming pools	2 962 677	2 305 931	289 677	367 068	3	3	4	8
Fencing	2 428 929	1 791 743	358 158	279 028	2	2	3	4
Other nonbuilding construction, nec	819 828	497 447	120 507	201 874	3	4	7	5
Construction work, nsk	253 492	X	X	X	7	X	X	X

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				D	E						
A	B	C	D	E	F	G	H	B	D	H	
235990, ALL OTHER SPECIAL TRADE CONTRACTORS											
Total	25 932	198 141	5 166 152	17 401 280	X	15 783 854	10 513 530	1 617 426	1	1	2
Establishments not specializing ..	2 602	29 738	888 100	2 660 114	X	2 462 336	1 689 387	197 778	2	2	6
Establishments specializing 51 percent or more	23 329	168 403	4 278 051	14 741 166	13 920 134	13 321 519	8 824 143	1 419 648	1	1	2
Single-family houses, detached and attached											
All establishments specializing	5 008	27 620	601 491	2 107 437	1 947 316	1 944 918	1 316 661	162 519	3	3	5
Specialization 100 percent	3 494	17 624	370 812	1 341 771	1 341 771	1 228 417	828 031	113 353	4	4	7
Specialization 90 to 99 percent ...	532	3 689	88 365	277 327	258 230	263 861	188 670	13 466 5	5	5	8
Specialization 80 to 89 percent ...	290	1 810	39 381	124 588	101 900	121 109	82 988	3 479 10	9	9	12
Specialization 70 to 79 percent ...	390	2 499	58 695	224 078	163 346	196 400	127 034	27 679 9	7	7	7
Specialization 60 to 69 percent ...	241	1 528	31 555	100 854	61 260	98 195	66 096	2 658 18	17	17	15
Specialization 51 to 59 percent ...	61	471	12 683	38 819	20 810	36 937	23 843	1 883 22	22	22	26
Apartment buildings, apartment type condominiums and cooperatives											
All establishments specializing	381	2 819	64 918	235 578	206 383	203 109	130 073	32 468	12	10	16
Specialization 100 percent	161	1 156	26 088	95 240	95 240	76 947	54 363	18 292	22	17	26
Specialization 90 to 99 percent ...	46	*387	8 315	42 009	39 286	34 444	*15 278	7 566 46	34	34	30
Specialization 80 to 89 percent ...	86	603	12 096	46 561	38 214	43 176	25 873	3 385 20	15	14	14
Specialization 70 to 79 percent ...	18	276	9 205	22 346	16 123	21 688	16 444	658 14	14	14	20
Specialization 60 to 69 percent ...	52	324	8 045	24 429	14 808	23 407	16 367	1 023 22	21	21	29
Specialization 51 to 59 percent ...	*17	73	1 171	4 993	2 713	3 447	1 747	1 545 31	35	35	35
Manufacturing and light industrial buildings											
All establishments specializing	984	11 909	342 586	950 608	849 162	906 155	645 186	44 454	3	3	6
Specialization 100 percent	700	7 023	192 894	564 571	564 571	537 317	380 622	27 253 5	4	4	6
Specialization 90 to 99 percent ...	90	1 198	30 519	82 392	77 622	76 199	57 186	6 193 10	11	11	32
Specialization 80 to 89 percent ...	51	1 072	33 528	93 481	75 795	88 671	60 093	4 810 8	8	8	24
Specialization 70 to 79 percent ...	46	673	27 448	74 288	53 805	72 961	53 918	1 326 10	9	9	11
Specialization 60 to 69 percent ...	61	994	28 901	72 615	44 689	71 556	52 369	1 060 4	5	5	24
Specialization 51 to 59 percent ...	*36	949	29 297	63 262	32 681	59 450	40 998	3 812 14	8	8	7
Office buildings											
All establishments specializing	1 272	16 636	488 043	1 296 625	1 216 823	1 216 785	874 138	79 841	4	4	5
Specialization 100 percent	999	12 923	376 138	969 238	969 238	917 654	659 847	51 584 4	4	4	6
Specialization 90 to 99 percent ...	44	455	14 779	52 096	49 529	48 918	38 079	3 178 13	22	22	22
Specialization 80 to 89 percent ...	63	1 159	28 835	76 007	63 089	67 375	45 658	8 632 12	9	9	18
Specialization 70 to 79 percent ...	101	1 165	39 633	120 098	87 002	108 194	78 507	11 904 21	19	19	6
Specialization 60 to 69 percent ...	55	782	23 461	65 127	40 449	61 543	42 138	3 584 7	9	9	24
Specialization 51 to 59 percent ...	11	151	5 196	14 059	7 515	13 100	9 909	959 9	7	7	Z
All other commercial buildings, nec											
All establishments specializing	2 027	18 547	541 695	1 937 242	1 869 331	1 719 250	1 133 114	217 993	4	4	11
Specialization 100 percent	1 727	15 815	460 274	1 649 187	1 649 187	1 457 981	956 957	191 207 5	5	5	13
Specialization 90 to 99 percent ...	104	939	28 299	106 128	97 686	96 946	68 445	9 182 8	5	5	5
Specialization 80 to 89 percent ...	36	381	9 881	33 294	27 052	30 267	22 278	3 026 10	10	10	6
Specialization 70 to 79 percent ...	92	533	16 625	56 115	40 898	51 265	33 348	4 851 12	13	13	17
Specialization 60 to 69 percent ...	48	581	17 514	54 914	33 985	52 103	32 587	*2 811 12	9	9	42
Specialization 51 to 59 percent ...	20	297	9 102	37 605	20 522	30 687	19 498	6 917 12	7	7	12
Educational buildings											
All establishments specializing	271	1 225	31 362	112 767	95 834	102 274	65 234	10 493	12	10	15
Specialization 100 percent	141	607	15 287	51 385	51 385	44 966	28 605	6 419 19	14	14	14
Specialization 90 to 99 percent ...	20	57	1 835	9 398	8 934	8 535	3 656	*863 23	31	31	43
Specialization 80 to 89 percent ...	*21	102	3 208	9 922	8 141	9 111	7 148	812 24	16	16	5
Specialization 70 to 79 percent ...	*30	136	2 869	10 941	8 186	10 309	7 422	632 29	20	20	20
Specialization 60 to 69 percent ...	*48	241	6 085	25 246	16 008	23 519	14 540	*1 728 28	31	31	69
Specialization 51 to 59 percent ...	12	81	2 078	5 874	3 180	5 834	S	*40 21	20	20	73

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1997—Con.

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—			
				For all types	For specialized type				B	D	H	
				A	B							C
235990, ALL OTHER SPECIAL TRADE CONTRACTORS—Con.												
Outdoor swimming pools												
All establishments specializing	4 209	29 174	715 141	3 029 290	2 949 197	2 505 706	1 601 878	523 585	4	3	4	
Specialization 100 percent	3 746	25 237	624 596	2 686 355	2 686 355	2 191 983	1 408 995	494 372	3	3	4	
Specialization 90 to 99 percent ...	157	1 300	31 125	126 259	118 421	114 219	71 715	12 041	26	23	19	
Specialization 80 to 89 percent ...	54	512	14 362	55 032	45 902	48 133	27 861	6 900	15	12	11	
Specialization 70 to 79 percent ...	94	445	10 253	38 580	27 550	36 547	22 008	2 033	32	27	29	
Specialization 60 to 69 percent ...	^s 51	^s 1 049	^s 22 693	^s 63 244	^s 39 387	^s 61 758	^s 37 145	^s 1 486	56	52	54	
Specialization 51 to 59 percent ...	108	632	12 112	59 820	31 583	53 066	34 153	6 754	20	15	10	
Fencing												
All establishments specializing	4 168	28 495	645 047	2 477 022	2 403 401	2 318 494	1 352 779	158 528	2	2	3	
Specialization 100 percent	3 810	25 058	553 576	2 145 470	2 145 470	2 013 450	1 178 828	132 020	2	2	3	
Specialization 90 to 99 percent ...	151	1 496	35 753	125 086	119 118	118 392	68 652	6 695	8	8	11	
Specialization 80 to 89 percent ...	^s 55	^s 503	^s 13 534	^s 44 427	^s 37 181	^s 40 913	^s 24 021	^s 3 514	54	45	48	
Specialization 70 to 79 percent ...	72	559	13 892	55 730	40 948	51 072	28 650	4 658	13	11	20	
Specialization 60 to 69 percent ...	29	406	13 003	56 130	34 699	46 566	23 421	9 564	10	13	8	
Specialization 51 to 59 percent ...	51	473	15 288	50 179	25 984	48 101	29 207	^s 2 078	14	12	49	

Table 9. **Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1997**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Primary and other kinds of business activities	Dollar value of business done	Relative standard error of estimate (percent)
235990, ALL OTHER SPECIAL TRADE CONTRACTORS		
Total	17 952 130	1
Special trade contractors, total	16 455 993	1
Antenna contractor, except household type	101 040	15
Fence construction contractor	2 820 531	2
House moving contractor	164 711	9
Insulation contractor, pipe and duct work	1 082 656	2
Modular furniture systems attachment and installation contractor	712 809	4
Ornamental metal contractor	633 403	4
Sandblasting contractor, building exteriors	383 153	6
Scaffolding contractor	623 039	1
Service station equipment installation contractor	1 202 851	6
Swimming pool contractor	3 145 983	3
Test boring or core drilling contractor for construction	504 250	4
Waterproofing, dampproofing and fireproofing contractor	1 638 080	2
Welding contractor, operating at site of construction	919 572	4
Other miscellaneous construction (special case) activities	2 523 914	3
Other construction activities, nec	930 536	3
Other business activities secondary to construction activities, total	549 625	3
Other business activities, secondary to construction activities, nec	239 834	3
Retail trade, secondary to construction activities	309 791	4
Kind of business activity, nsk	15 976	4

Table 10. Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
235990, ALL OTHER SPECIAL TRADE CONTRACTORS											
Total	25 932	198 141	5 166 152	17 401 280	X	15 783 854	10 513 530	1 617 426	1	1	2
Establishments not specializing	586	7 523	205 615	576 356	X	504 139	389 819	72 216	6	6	13
Establishments specializing 51 percent or more	25 345	190 618	4 960 536	16 824 925	15 667 107	15 279 716	10 123 712	1 545 209	1	1	2
Fence construction contractor											
All establishments specializing	5 141	33 065	735 629	2 842 430	2 690 614	2 668 372	1 555 734	174 058	2	2	3
Specialization 100 percent	4 222	24 307	525 530	2 118 273	2 118 273	1 989 560	1 115 920	128 713	3	3	4
Specialization 90 to 99 percent	400	3 357	75 485	275 874	260 937	264 179	151 178	11 695	5	5	8
Specialization 80 to 89 percent	217	1 879	41 313	140 522	117 611	128 372	80 166	12 150	18	16	20
Specialization 70 to 79 percent	95	1 249	31 240	112 099	82 139	103 938	73 258	8 161	6	6	10
Specialization 60 to 69 percent	70	700	19 763	67 518	42 606	64 005	41 052	3 513	11	12	20
Specialization 51 to 59 percent	137	1 573	42 298	128 144	69 047	118 318	94 159	9 826	6	7	11
House moving contractor											
All establishments specializing	498	2 482	51 280	173 719	159 256	161 719	110 656	12 000	9	9	24
Specialization 100 percent	370	1 810	36 547	117 917	117 917	109 243	76 746	8 674	11	10	33
Specialization 90 to 99 percent	*22	124	3 011	17 669	16 880	16 561	7 443	1 107	29	36	37
Specialization 80 to 89 percent	24	129	2 915	6 605	5 387	5 666	4 221	938	27	27	33
Specialization 70 to 79 percent	30	138	*3 344	8 919	6 473	8 834	6 504	*85	35	36	47
Specialization 60 to 69 percent	*29	*130	*1 861	*7 217	*4 369	*7 139	*4 898	*78	47	54	57
Specialization 51 to 59 percent	*24	151	3 601	*15 393	*8 230	*14 276	*10 845	1 117	33	45	31
Insulation contractor, pipe and duct work											
All establishments specializing	802	13 832	438 918	1 096 374	1 018 924	1 035 203	751 215	61 172	3	2	4
Specialization 100 percent	621	8 146	254 321	703 640	703 640	658 535	437 982	45 105	4	2	3
Specialization 90 to 99 percent	61	1 914	58 482	127 838	121 805	126 506	92 823	1 332	4	3	14
Specialization 80 to 89 percent	58	1 009	30 865	71 971	59 209	68 011	54 675	3 959	14	12	29
Specialization 70 to 79 percent	19	1 695	61 332	125 586	94 286	118 565	102 725	7 022	9	14	25
Specialization 60 to 69 percent	20	673	22 226	49 500	30 636	47 359	39 347	2 142	1	2	25
Specialization 51 to 59 percent	22	394	11 692	17 839	9 348	16 227	23 664	1 612	10	8	10
Modular furniture systems attachment and installation contractor											
All establishments specializing	790	10 463	292 798	726 227	704 197	680 083	504 696	46 145	5	4	13
Specialization 100 percent	665	8 755	247 251	602 428	602 428	564 892	412 439	37 536	4	4	16
Specialization 90 to 99 percent	65	682	17 076	54 465	51 402	50 715	38 884	3 749	13	20	23
Specialization 80 to 89 percent	*27	*638	14 835	28 066	23 132	27 365	27 181	701	49	29	4
Specialization 70 to 79 percent	*21	179	6 615	21 025	15 355	19 151	13 526	1 874	14	15	8
Specialization 60 to 69 percent	*7	93	3 410	12 423	7 660	10 744	6 302	1 679	29	25	4
Specialization 51 to 59 percent	5	116	3 610	7 821	S	7 215	6 364	606	Z	Z	Z
Ornamental metal contractor											
All establishments specializing	942	6 893	189 395	593 760	524 982	556 185	372 433	37 575	6	5	7
Specialization 100 percent	741	4 197	107 564	352 230	352 230	330 671	217 787	21 559	8	7	10
Specialization 90 to 99 percent	78	615	15 299	48 586	45 167	46 227	31 027	2 359	14	15	21
Specialization 80 to 89 percent	21	327	9 937	24 775	20 510	24 055	17 519	720	18	12	13
Specialization 70 to 79 percent	50	670	20 242	59 546	43 735	56 444	38 925	3 102	21	23	39
Specialization 60 to 69 percent	*27	554	21 028	63 905	40 322	57 228	40 670	6 677	15	12	1
Specialization 51 to 59 percent	26	530	15 324	44 718	23 018	41 560	26 505	3 158	7	3	5
Service station equipment installation contractor											
All establishments specializing	899	9 853	311 214	1 239 798	1 163 417	1 062 499	672 955	177 299	7	6	14
Specialization 100 percent	605	6 608	214 449	886 682	886 682	764 988	475 649	121 693	6	7	19
Specialization 90 to 99 percent	153	1 561	42 149	150 354	138 636	124 504	68 085	25 850	33	25	28
Specialization 80 to 89 percent	42	498	15 172	60 563	49 594	51 089	39 005	9 475	6	9	17
Specialization 70 to 79 percent	35	*414	*12 686	*42 289	*30 359	*39 441	*27 477	2 847	48	45	11
Specialization 60 to 69 percent	18	354	13 098	41 212	26 070	33 523	29 288	7 689	10	9	17
Specialization 51 to 59 percent	45	418	13 660	58 699	32 076	48 954	33 450	9 745	6	3	5
Swimming pool contractor											
All establishments specializing	4 470	30 070	740 098	3 185 632	3 013 806	2 612 195	1 658 387	573 437	3	3	4
Specialization 100 percent	3 477	21 175	529 024	2 408 692	2 408 692	1 958 871	1 168 372	449 821	4	3	5
Specialization 90 to 99 percent	263	2 086	59 618	282 003	266 391	216 332	132 275	65 671	8	9	8
Specialization 80 to 89 percent	166	1 475	35 409	126 922	106 633	109 127	73 451	17 795	9	7	7
Specialization 70 to 79 percent	184	1 335	29 645	114 803	84 482	95 743	71 200	19 060	11	11	12
Specialization 60 to 69 percent	158	2 288	52 265	138 307	87 057	129 288	108 971	9 019	28	26	13
Specialization 51 to 59 percent	221	1 711	34 136	114 905	60 550	102 834	104 119	12 071	14	11	10

Table 10. **Selected Statistics for Establishments With Payroll by Specialization in Kind-of-Business Activity: 1997—Con.**

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or dollar value of business done for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the dollar value of business done by kind of business activity was not provided in Table 9. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Number of establishments	Total number of employees	Payroll, all employees	Value of construction work		Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all kinds of business	For specialized kinds of business				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
235990, ALL OTHER SPECIAL TRADE CONTRACTORS—Con.											
Test boring or core drilling contractor for construction											
All establishments specializing	510	4 711	158 790	517 258	495 963	481 620	335 067	35 638	5	4	8
Specialization 100 percent	430	3 967	135 056	446 030	446 030	413 106	284 929	32 924	6	4	8
Specialization 90 to 99 percent	13	131	3 656	10 891	10 444	10 862	8 326	29	14	22	Z
Specialization 80 to 89 percent	19	133	4 306	11 219	9 371	10 951	7 994	268	13	13	3
Specialization 70 to 79 percent	13	134	4 227	11 790	8 810	11 664	8 615	\$127	17	16	48
Specialization 60 to 69 percent	\$24	163	4 318	18 924	11 561	18 634	12 704	290	25	25	Z
Specialization 51 to 59 percent	11	184	7 227	18 403	9 747	16 403	12 500	2 000	5	5	Z
Waterproofing, dampproofing and fireproofing contractor											
All establishments specializing	1 842	19 936	526 616	1 681 819	1 585 105	1 545 491	1 035 481	136 328	3	2	5
Specialization 100 percent	1 549	16 148	417 563	1 326 384	1 326 384	1 215 988	816 013	110 396	3	3	5
Specialization 90 to 99 percent	103	1 284	32 659	93 150	87 177	87 543	54 051	5 607	15	12	15
Specialization 80 to 89 percent	68	460	12 610	46 189	38 851	40 993	27 971	5 196	9	13	32
Specialization 70 to 79 percent	42	681	22 389	58 405	43 108	56 806	42 157	1 599	6	9	29
Specialization 60 to 69 percent	45	588	16 882	68 122	42 080	60 578	35 435	7 544	14	14	11
Specialization 51 to 59 percent	36	776	24 513	89 570	47 505	83 583	59 855	5 986	20	15	28
Welding contractor, operating at site of construction											
All establishments specializing	1 659	10 668	300 729	919 842	836 791	857 147	608 504	62 695	4	4	7
Specialization 100 percent	1 311	7 086	195 453	643 369	643 369	596 580	419 763	46 788	6	6	9
Specialization 90 to 99 percent	65	433	12 495	35 544	33 270	33 519	25 955	2 025	16	12	7
Specialization 80 to 89 percent	65	773	25 793	66 203	54 038	64 566	44 603	1 637	13	10	22
Specialization 70 to 79 percent	86	465	11 224	37 195	27 320	34 457	22 365	2 739	18	20	25
Specialization 60 to 69 percent	83	610	18 912	58 318	36 319	54 849	34 904	3 468	14	13	16
Specialization 51 to 59 percent	49	1 302	36 851	79 213	42 476	73 175	60 914	6 038	4	4	4

Table 11. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1997

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. * Indicates geographic change, but not applicable to this sector. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Construction work done by establishments located in this state		Construction work done by establishments not located in this state		Construction work done by establishments not reporting		Relative standard error of estimate (percent) for column—			
	Value of construction work done in this state	Number	Value of construction work	Number	Value of construction work	Number	Value of construction work	A	C	E
	A	B	C	D	E	F	G			
235990, ALL OTHER SPECIAL TRADE CONTRACTORS										
United States	17 401 280	14 568	10 436 992	5 179	1 295 598	11 326	5 668 690	1	1	4
Alabama	180 092	165	78 203	116	25 763	197	76 127	6	10	4
Alaska	48 871	37	D	26	D	20	D	18	D	D
Arizona	575 678	312	407 475	69	17 955	314	150 248	3	4	7
Arkansas	D	67	D	76	10 736	104	D	D	D	12
California	2 329 898	1 538	1 599 049	83	53 142	1 425	677 707	2	3	29
Colorado	D	330	D	109	9 217	220	D	D	D	18
Connecticut	220 638	180	107 670	144	42 039	147	70 930	5	9	8
Delaware	58 283	⁵²	D	73	D	59	D	8	D	D
District of Columbia.....	42 400	³	D	140	D	3	D	4	D	D
Florida	1 478 162	1 218	984 096	107	56 417	838	437 649	3	5	7
Georgia	532 895	494	295 041	164	30 525	346	207 329	5	8	4
Hawaii *	87 994	68	51 491	17	5 286	29	31 217	6	8	2
Idaho	63 921	131	D	47	D	40	D	16	D	D
Illinois	672 954	422	342 071	168	33 863	459	297 021	3	4	8
Indiana	300 386	314	203 289	237	34 923	142	62 175	11	16	9
Iowa	102 776	104	55 580	77	18 165	76	29 032	14	18	13
Kansas	102 799	88	D	134	D	80	D	9	D	D
Kentucky	148 160	190	65 686	165	32 717	90	49 758	8	14	21
Louisiana	398 412	185	255 210	87	20 497	212	122 705	3	4	5
Maine	81 571	90	37 647	42	4 752	52	³⁹ 172	24	19	8
Maryland	435 832	356	279 574	157	41 464	228	114 795	7	11	7
Massachusetts	443 708	317	D	122	D	253	D	4	D	D
Michigan	535 973	425	316 069	112	20 863	322	199 041	5	7	4
Minnesota	214 409	148	118 984	57	7 802	207	87 623	7	8	12
Mississippi	D	71	D	81	22 399	100	D	D	D	24
Missouri	363 354	301	254 539	78	9 688	246	99 128	4	5	7
Montana	46 689	55	19 701	41	⁹ 620	50	17 368	17	25	54
Nebraska	96 638	134	56 339	63	11 433	38	28 866	6	10	13
Nevada	305 932	105	167 707	72	29 158	153	109 067	7	9	3
New Hampshire	78 194	90	42 236	118	D	41	D	13	22	D
New Jersey	515 010	448	268 574	206	49 158	397	197 278	5	8	9
New Mexico	121 302	111	79 997	28	8 909	115	32 396	18	27	22
New York	977 544	820	570 399	186	55 481	617	351 664	2	4	11
North Carolina	D	517	D	173	37 202	377	D	D	D	28
North Dakota	D	30	D	41	⁶ 233	11	D	D	D	56
Ohio	511 866	532	341 233	145	29 463	341	141 169	6	8	5
Oklahoma	116 390	174	69 656	57	9 384	157	37 349	13	20	7
Oregon	181 395	158	112 339	73	21 114	188	47 942	8	12	10
Pennsylvania	601 496	615	342 129	227	45 841	367	213 526	4	6	12
Rhode Island	76 356	43	D	53	D	55	19 423	22	D	D
South Carolina	191 685	231	D	118	34 347	176	D	8	D	2
South Dakota	24 176	⁴⁷	¹³ 177	35	4 248	¹⁶	6 750	22	40	27
Tennessee	234 735	224	148 786	101	24 878	140	61 071	10	16	4
Texas	1 680 624	1 342	1 055 060	132	39 072	840	586 493	4	6	14
Utah	D	147	D	23	9 186	102	D	D	D	4
Vermont	25 267	45	D	32	D	31	D	16	D	D
Virginia	418 014	371	187 466	256	81 562	328	148 987	4	8	3
Washington	350 472	374	172 018	107	45 252	334	133 202	5	8	5
West Virginia	67 876	44	D	97	13 757	80	D	10	D	4
Wisconsin	218 881	235	140 052	71	23 809	122	55 020	5	7	8
Wyoming	31 088	68	18 929	35	2 599	42	9 560	16	26	8

Appendix A.

Explanation of Terms

ALL EMPLOYEES

Comprise all full-time and part-time employees on the payroll of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. Number of employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

BEGINNING-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

Gross value of depreciable assets, usually original costs of the assets, at the beginning of the year. Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

BEGINNING-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the beginning of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

CAPITAL EXPENDITURES, OTHER THAN LAND (\$1,000)

Capital expenditures are those that were or will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted it for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet

the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: NUMBER

Includes the number of establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments physically located and doing construction work in the same state.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT LOCATED IN THIS STATE: NUMBER

Includes the number of establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENT NOT LOCATED IN THIS STATE: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments not located in the state where the construction work is done. Establishment location is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted with some exceptions. A relatively permanent

office is one that has been established for the management of more than one project or job and is expected to be maintained on a continuing basis.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: NUMBER (\$1,000)

Includes the number of establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORK DONE BY ESTABLISHMENTS NOT REPORTING: VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by establishments that did not report the state location of construction work on their census forms and establishments that did not complete a construction census form. Data were estimated for establishments that did not complete a census form.

CONSTRUCTION WORKERS

Includes all payroll workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

COST OF ALL OTHER FUELS AND LUBRICANTS (\$1,000)

Costs for fuels and lubricants purchased during the year from other companies or received from other establishments of the company and not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COST OF CONSTRUCTION WORK SUBCONTRACTED OUT TO OTHERS (\$1,000)

All costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use, such costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

COST OF ELECTRICITY (\$1,000)

Costs for electric energy purchased during the year from other companies or received from other establishments of the company.

COST OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company.

COST OF OFF-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Includes the costs for gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.

COST OF ON-HIGHWAY USE OF GASOLINE AND DIESEL FUEL (\$1,000)

Costs for gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

COSTS OF MATERIALS, COMPONENTS, AND SUPPLIES (\$1,000)

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company. Excluded from this item are the cost of fuels, lubricants, electric energy, industrial and other specialized machinery

and equipment such as printing presses; computer systems, that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

COST OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS (\$1,000)

Includes the costs for materials, components, supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities and costs for materials bought and resold to others. Also includes the costs for fuels that include gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company and costs for natural and manufactured gas, fuel oil, coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems, that are not an integral part of a structure; materials furnished to contractors by the owners of projects.

COST OF NATURAL GAS AND MANUFACTURED GAS (\$1,000)

Costs for natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.

COST OF REPAIRS TO BUILDING AND OTHER STRUCTURES (\$1,000)

Includes the cost of all repairs made to structures by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

COST OF REPAIRS TO MACHINERY AND EQUIPMENT (\$1,000)

Includes the cost of all repairs made to machinery and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain the machinery.

COST OF SELECTED POWER, FUELS, AND LUBRICANTS (\$1,000)

Included are costs for fuels including gasoline, diesel fuel, and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, coal and coke products.

DEPRECIATION CHARGES DURING YEAR (\$1,000)

The depreciation expenses of the establishment in the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

DOLLAR VALUE SIZE CLASS

Displays data for establishments with payroll that fall within each range of value of business done.

END-OF-YEAR GROSS BOOK VALUE OF DEPRECIABLE ASSETS (\$1,000)

The gross value of depreciable assets, plus any capital expenditures for new and use depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year.

END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES (\$1,000)

The inventories of materials and supplies owned at the end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others but held by the reporting establishment. Builders who build on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

FIRST-QUARTER PAYROLL (\$1,000)

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is January through March. Includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS (\$1,000)

Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

LEGALLY REQUIRED EXPENDITURES (\$1,000)

Includes expenditures made by the employer for Social Security contributions, unemployment compensation, workman's compensation, and state temporary disability payments.

NET VALUE OF CONSTRUCTION WORK (\$1,000)

The value of construction work less the cost of construction work subcontracted out to others.

**NUMBER OF CONSTRUCTION WORKERS:
QUARTERLY PAY PERIOD**

Refers to the number of construction workers employed during a quarterly pay period. January to March includes the reported number of construction workers employed during the pay period including March 12. April to June includes the reported number of construction workers employed during the pay period including May 12. July to September includes the reported number of construction workers employed during the pay period including August 12. October to December includes the reported number of construction workers employed during the pay period including November 12.

NUMBER OF ESTABLISHMENTS

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS NOT REPORTING
INVENTORIES**

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF ESTABLISHMENTS WITH NO
INVENTORIES**

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

**NUMBER OF OTHER EMPLOYEES: QUARTERLY PAY
PERIOD**

Refers to the number of other employees employed during a quarterly pay period. January to March includes the reported number of other workers employed during the pay period including March 12. April to June includes the reported number of other workers employed during the pay period including May 12. July to September includes the reported number of other workers employed during the pay period including August 12. October to December includes the reported number of other workers employed during the pay period including November 12.

**NUMBER OF PROPRIETORS AND WORKING
PARTNERS**

These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

OTHER BUSINESS RECEIPTS (\$1,000)

Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are receipts from other business operations in foreign countries, and nonoperating income such as interest and dividends.

OTHER EMPLOYEES

Includes payroll employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

PAYROLL (\$1,000)

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

PAYROLL: CONSTRUCTION WORKERS (\$1,000)

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to deductions such as employees' Social security contributions, withholding taxes, group insurance, union dues, and savings bonds.

PAYROLL: OTHER EMPLOYEES (\$1,000)

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

PRIMARY AND OTHER KINDS OF BUSINESS ACTIVITIES

Displays dollar value of business done by primary construction business activity. Primary construction activity is construction activity that generates fifty-one percent or more of an establishment's dollar value of business done. Also displayed are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

PURCHASED COMMUNICATION SERVICES (\$1,000)

Includes all costs for communication services purchased from other companies or from other establishments of the company.

RENTAL COSTS FOR BUILDINGS (\$1,000)

Includes all costs for renting or leasing space and buildings. It excludes costs under agreements that are in effect conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY AND EQUIPMENT (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, and scaffolding. It excludes costs for the rental of

land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RENTAL COSTS FOR MACHINERY, EQUIPMENT, AND BUILDINGS (\$1,000)

Includes all costs for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS (\$1,000)

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

SELECTED COSTS (\$1,000)

Includes the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

SELECTED PURCHASED SERVICES (\$1,000)

Includes all costs for communication and repair to buildings and other structure services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of repairs necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in capital expenditures.

SPECIALIZATION PERCENT

Displays data for establishments with payroll that fall within each percent range of specialization.

TYPE OF CONSTRUCTION

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function.

For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types.

Building Construction

- **Single-family houses, detached.** Includes all fully detached residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings, apartment type condominiums, and cooperatives.** Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **All other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Manufacturing and light industrial buildings.** Includes all manufacturing and light industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- **Manufacturing and light industrial warehouses.** Includes all warehouses which are intended for industrial activities.
- **Hotels and motels.** Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Office buildings.** Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- **All other commercial buildings, nec (not elsewhere classified) such as stores, restaurants, and automobile service stations.** Includes all buildings that are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Commercial warehouses.** Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- **Religious buildings.** Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings.** Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.
- **Health care and institutional buildings.** Includes hospitals, medical office buildings and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Public safety buildings.** Included detention centers, prisons, fire stations, and rescue squad buildings.
- **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings.** Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
- **Other building construction.** Includes all types of residential and nonresidential building construction not shown elsewhere.

Nonbuilding Construction

- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks,

curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.

- **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
- **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
- **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
- **Sewers, sewer lines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
- **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
- **Pipeline construction other than sewer or water-lines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
- **Power plants and cogeneration plants, except hydroelectric.** Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- **Power plant, hydroelectric.** Includes all types of hydroelectric power generating plants.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Urban mass transit.** Includes subways, street cars, and light rail systems.
- **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
- **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
- **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Dry/Solid waste disposal.** Includes all dry/solid waste disposal sites where non hazardous waste is buried.
- **Harbor and port facilities.** Includes docks, piers, and wharves.
- **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
- **Outdoor swimming pools.** Includes wading pools and reflecting pools.
- **Water storage facilities.** Includes aqueducts, water towers, and water tanks.
- **Tank storage facilities other than water.** Includes gasoline and oil storage tanks.
- **Fencing.** Includes all types of fencing.
- **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Billboards.** Includes all type of billboards.
- **Heavy military construction.** Includes all military nonbuilding such as missile sites and testing facilities, launch sites and underground command centers.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Oilfields.** The majority of construction work occurring in oil fields is classified in Sector 21, Mining. For example, pipeline construction on oil and gas leases are classified in mining only up to the point where the distribution company takes over. At that point, pipeline construction activity is classified in Sector 23, Construction. Some secondary mining construction activities are classified in the construction sector. Examples of this include: road construction; land clearing contracting; land drainage contracting; and land leveling contracting.
- **Other nonbuilding construction, nec.** Includes all types of nonbuilding construction not elsewhere classified.

VALUE ADDED (\$1,000)

Value added is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF BUSINESS DONE (\$1,000)

Value of business done is the sum of value of construction work and other business receipts.

VALUE OF CONSTRUCTION WORK (\$1,000)

Includes the value of construction work done by general contractors, heavy construction contractors, and special trades contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Also includes the value of any construction work done by the reporting establishments for themselves. Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the reporting year, but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure, and value of work done from business operations in foreign countries.

VALUE OF CONSTRUCTION WORK: ADDITIONS, ALTERATIONS, OR RECONSTRUCTION (\$1,000)

Includes construction work which adds to the value or useful life of an existing building or structure or that adapts a building or structure to a new or different use. Included are major replacements of building systems, such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets that would be classified as maintenance and repair.

VALUE OF CONSTRUCTION WORK DONE IN THIS STATE (\$1,000)

Includes the value of construction work done in a state by general contractors, heavy construction contractors, and special trades contractors.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS WITH NO INVENTORIES (\$1,000)

The value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

VALUE OF CONSTRUCTION WORK: FOR SPECIALIZED TYPE (\$1,000)

Includes value of construction work for one of two specialized categories: types of construction; and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. The following are examples of kind-of-business activity: highway and street construction; electrical contracting; carpentry contracting; and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK: MAINTENANCE AND REPAIR (\$1,000)

Includes incidental construction work that keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning and janitorial services.

VALUE OF CONSTRUCTION WORK: NEW CONSTRUCTION (\$1,000)

Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.

VALUE OF CONSTRUCTION WORK ON FEDERALLY OWNED PROJECTS (\$1,000)

The value of construction work for projects owned by the Federal government.

VALUE OF CONSTRUCTION WORK ON GOVERNMENT OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by Federal, state, and local governments.

VALUE OF CONSTRUCTION WORK ON PRIVATELY OWNED PROJECTS (\$1,000)

The value of construction work for construction projects other than government owned projects.

VALUE OF CONSTRUCTION WORK ON STATE AND LOCALLY OWNED PROJECTS (\$1,000)

The value of construction work for the sum total of all projects owned by state and local governments.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS (\$1,000)

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the

approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS NOT REPORTING INVENTORIES (\$1,000)

The value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VOLUNTARY EXPENDITURES (\$1,000)

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Appendix B.

NAICS Codes, Titles, and Descriptions

23 CONSTRUCTION

The Construction sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. The industries within this sector have been defined on the basis of their unique production processes. As with all industries, the production processes are distinguished by their use of specialized human resources and specialized physical capital. Construction activities are generally administered or managed at a relatively fixed place of business, but the actual construction work is performed at one or more different project sites.

This sector is divided into three subsectors of construction activities: (1) building construction and land subdivision and land development; (2) heavy construction (except buildings), such as highways, power plants, and pipelines; and (3) construction activity by special trade contractors.

Establishments classified in Subsector 233, Building, Developing, and General Contracting and Subsector 234, Heavy Construction, usually assume responsibility for an entire construction project, and may subcontract some or all of the actual construction work. Operative builders who build on their own account for sale, and land subdividers and land developers, who engage in subdividing real property into lots for sale, are included in Subsector 233, Building, Developing, and General Contracting. (Special trade contractors are included in Subsector 234, Heavy Construction, if they are engaged in activities primarily relating to heavy construction, such as grading for highways.) Establishments included in these subsectors operate as general contractors, design-builders, engineer-constructors, joint-venture contractors, and turnkey construction contractors. Establishments identified as construction management firms are also included.

Establishments classified in Subsector 235, Special Trade Contractors, are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for builders and general contractors under subcontract or directly for project owners. Establishments engaged in demolition or wrecking of

buildings and other structures, dismantling of machinery, excavating, shoring and underpinning, anchored earth retention activities, foundation drilling, and grading for buildings are also included in this subsector.

“Force account” construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this industry sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation of prefabricated building equipment and materials, such as elevators and revolving doors, is classified in the Construction sector. Installation work incidental to sales by employees of a manufacturing or retail establishment is classified as an activity of those establishments.

233 Building, Developing, and General Contracting

Industries in the Building, Developing, and General Contracting subsector comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repair) of building projects. Builders, developers, and general contractors, as well as land subdividers and land developers are included in this subsector. Establishments identified as construction management firms for building projects are also included. The construction work may be for others and performed by custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors, or may be on their own account for sale and performed by speculative or operative builders.

2331 Land Subdivision and Land Development

This NAICS Industry Group includes establishments classified in NAICS Industry 23311, Land Subdivision and Land Development.

23311 Land Subdivision and Land Development

This industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

233110 Land Subdivision and Land Development

This U.S. industry comprises establishments primarily engaged in subdividing real property into lots and/or developing building lots for sale.

The data published with NAICS code 233110 include the following SIC industries:

6552 Land subdividers and developers, except cemeteries

2332 Residential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23321, Single-Family Housing Construction; and 23322, Multifamily Housing Construction.

23321 Single-Family Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233210 Single-Family Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of single family residential housing units (e.g., single family detached houses, town houses, or row houses where each housing unit is separated by a ground-to-roof wall and where no housing units are constructed above or below). This industry includes establishments responsible for additions and alterations to mobile homes and on-site assembly of modular and prefabricated houses. Establishments identified as single family construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include single family housing custom builders, general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233210 include the following SIC industries:

1521 General contractors—single-family houses
1531 Operative builders (pt)
8741 Management services (pt)

23322 Multifamily Housing Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233220 Multifamily Housing Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of multifamily residential housing units (e.g., highrise, garden, and town house apartments where each unit is not separated by a ground-to-roof wall). The units may be constructed for sale as condominiums or cooperatives, or for rental as apartments. Establishments identified as multifamily construction management firms are also included in this industry. Establishments in this industry may perform work for others or on their own account for sale as speculative or operative builders. Kinds of establishments include multifamily housing general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233220 include the following SIC industries:

1522 General contractors—residential buildings, other than single-family (pt)
1531 Operative builders (pt)
8741 Management services (pt)

2333 Nonresidential Building Construction

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23331, Manufacturing and Industrial Building Construction; and 23332, Commercial and Institutional Building Construction.

23331 Manufacturing and Industrial Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in

this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233310 Manufacturing and Industrial Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of manufacturing and industrial buildings (e.g., plants, mills, factories). Establishments identified as manufacturing and industrial building construction management firms are also included in this industry. Kinds of establishments include manufacturing and industrial building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233310 include the following SIC industries:

- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 8741 Management services (pt)

23332 Commercial and Institutional Building Construction

This industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

233320 Commercial and Institutional Building Construction

This U.S. industry comprises establishments primarily responsible for the entire construction (i.e., new work, additions, alterations, and repairs) of commercial and institutional buildings (e.g., stores, schools, hospitals office buildings, public warehouses). Establishments identified as commercial and institutional building construction management firms are also included in this industry. Kinds of establishments include commercial and institutional building general contractors, design builders, engineer-constructors, joint-venture contractors, and turnkey contractors.

The data published with NAICS code 233320 include the following SIC industries:

- 1522 General contractors—residential buildings, other than single-family (pt)
- 1531 Operative builders (pt)
- 1541 General contractors—industrial buildings and warehouses (pt)
- 1542 General contractors—nonresidential buildings, except industrial buildings and warehouses
- 8741 Management services (pt)

234 Heavy Construction

Industries in the Heavy Construction subsector group establishments that engage in the construction of heavy engineering and industrial projects (except buildings), for example, highways, power plants, and pipelines. The construction work performed may include new work, reconstruction, or repairs. Establishments identified as heavy construction management firms are also included. Establishments in this subsector usually assume responsibility for entire nonbuilding projects but may subcontract some or all of the actual construction work. Special trade contractors are included in this group if they are engaged in activities primarily related to heavy construction, for example, grading for highways. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

2341 Highway, Street, Bridge, and Tunnel Construction

This NAICS Industry Group includes establishments classified in the following NAICS industries: 23411, Highway and Street Construction; and 23412, Bridge and Tunnel Construction.

23411 Highway and Street Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated), streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

234110 Highway and Street Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of highways (except elevated),

streets, roads, or airport runways; (2) establishments identified as highway and street construction management firms; and (3) establishments identified as special trade contractors engaged in performing subcontract work primarily related to highway and street construction (e.g., grading for highways, installing guardrails, public sidewalk construction). Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include highway and street general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234110 include the following SIC industries:

- 1611 Highway and street construction contractors, except elevated highways
- 8741 Management services (pt)

23412 Bridge and Tunnel Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

234120 Bridge and Tunnel Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of bridges, viaducts, elevated highways, and tunnels; (2) establishments identified as bridge and tunnel construction management firms; and (3) establishments identified as special trade contractors primarily engaged in performing subcontract work related to bridge and tunnel construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include bridge and tunnel general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234120 include the following SIC industries:

- 1622 Bridge, tunnel, and elevated highway construction contractors
- 8741 Management services (pt)

2349 Other Heavy Construction

This industry group comprises establishments primarily engaged in heavy nonbuilding construction (except highway, street, bridge, and tunnel construction).

23491 Water, Sewer, and Pipeline Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

234910 Water, Sewer, and Pipeline Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, rehabilitation, or repairs) of water mains, sewers, drains, gas mains, natural gas pumping stations, and gas and oil pipelines; (2) establishments identified as water, sewer, and pipeline construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to water, sewer, and pipeline construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include water, sewer, and pipeline general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234910 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23492 Power and Communication Transmission Line Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

234920 Power and Communication Transmission Line Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of electric power and communication transmission lines and towers, radio and television transmitting/receiving towers, cable laying, and cable television lines; (2) establishments identified as power and communication transmission line construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to power and communication transmission line construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include power and communication transmission line general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234920 include the following SIC industries:

- 1623 Water, sewer, pipeline, and communications and power line construction (pt)
- 8741 Management services (pt)

23493 Industrial Nonbuilding Structure Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

234930 Industrial Nonbuilding Structure Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy industrial nonbuilding structures, such as chemical complexes or facilities, cement plants, petroleum refineries, industrial incinerators, ovens, kilns, power plants (except hydroelectric plants), and nuclear reactor containment structures; (2) establishments identified as industrial nonbuilding construction management firms; and (3) establishments identified as special trade contractors engaged in activities primarily related to industrial nonbuilding construction.

Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include industrial nonbuilding general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234930 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 8741 Management services (pt)

23499 All Other Heavy Construction

This industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

234990 All Other Heavy Construction

This U.S. industry comprises: (1) establishments primarily responsible for the entire construction (i.e., new work, reconstruction, or repairs) of heavy nonbuilding construction projects (except highway, street, bridge, tunnel, water lines, sewer lines, pipelines, power and communication transmission lines, and industrial nonbuilding structures); (2) establishments identified as all other heavy construction management firms; (3) establishments primarily engaged in construction equipment rental with an operator; and (4) establishments identified as special trade contractors engaged in activities related primarily to all other heavy construction. Typical projects constructed by establishments in this industry include athletic fields, dams, dikes, docks, drainage projects, golf courses, harbors, parks, reservoirs, canals, sewage treatment plants, water treatment plants, hydroelectric plants, subways, and other mass transit projects. Establishments in this industry may subcontract some or all of the actual construction work. Kinds of establishments include heavy construction general contractors, design builders, engineer-constructors, and joint-venture contractors.

The data published with NAICS code 234990 include the following SIC industries:

- 1629 Heavy construction, n.e.c. (pt)
- 7353 Heavy construction equipment, rental and leasing (pt)
- 8741 Management services (pt)

235 Special Trade Contractors

Industries in the Special Trade Contractors subsector engage in specialized construction activities, such as plumbing, painting, and electrical work. Those establishments that engage in activities primarily related to heavy construction, such as grading for highways, are classified in Subsector 234, Heavy Construction. The activities of this subsector may be subcontracted from builders or general contractors or it may be performed directly for project owners. The construction work performed may include new work, additions, alterations, or maintenance and repairs. Special trade contractors usually perform most of their work at the job site, although they may have shops where they perform prefabrication and other work.

2351 Plumbing, Heating, and Air-Conditioning Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23511, Plumbing, Heating, and Air-Conditioning Contractors.

23511 Plumbing, Heating, and Air-Conditioning Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

235110 Plumbing, Heating, and Air-Conditioning Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) installing plumbing, heating, and air-conditioning equipment; (2) servicing plumbing, heating, and air-conditioning equipment; and (3) the combined activity of selling and installing plumbing, heating, and air-conditioning equipment. The plumbing, heating, and air-conditioning work performed includes new work, additions, alterations, and

maintenance and repairs. The activities performed by these establishments range from duct fabrication and installation at the site to installation of refrigeration equipment, installation of sprinkler systems, and installation of environmental controls.

The data published with NAICS code 235110 include the following SIC industry:

- 1711 Plumbing, heating, and air-conditioning special trade contractors

This definition comes from the 1997 NAICS manual. However, for this industry, the 1997 Economic Census--Construction did not fully implement the conversion to NAICS. Data for NAICS industry 235110 do not include establishments whose primary activity is boiler cleaning. The NAICS definitions will be fully implemented with the 2002 Economic Census.

2352 Painting and Wall Covering Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23521, Painting and Wall Covering Contractors.

23521 Painting and Wall Covering Contractors

This industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

235210 Painting and Wall Covering Contractors

This U.S. industry comprises establishments primarily engaged in interior or exterior painting and interior wall covering. The painting and wall covering work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by these establishments range from bridge, ship, and traffic lane painting to paint and wall covering removal.

The data published with NAICS code 235210 include the following SIC industries:

- 1721 Painting and paper hanging special trade contractors
- 1799 Special trade contractors, n.e.c. (pt)

2353 Electrical Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23531, Electrical Contractors.

23531 Electrical Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

235310 Electrical Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) performing electrical work at the site (e.g., installing wiring); (2) servicing electrical equipment at the site; and (3) the combined activity of selling and installing electrical equipment. The electrical work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235310 include the following SIC industry:

1731 Electrical work special trade contractors

2354 Masonry, Drywall, Insulation, and Tile Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23541, Masonry and Stone Contractors; 23542, Drywall, Plastering, Acoustical, and Insulation Contractors; and 23543, Tile, Marble, Terrazzo, and Mosaic Contractors.

23541 Masonry and Stone Contractors

This industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

235410 Masonry and Stone Contractors

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, and other stone work. The masonry work, stone setting, and other stone work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the construction of foundations made of block, stone, or brick to glass block laying; exterior marble, granite and slate work; and tuck pointing.

The data published with NAICS code 235410 include the following SIC industry:

1741 Masonry, stone setting, and other stone work special trade contractors

23542 Drywall, Plastering, Acoustical, and Insulation Contractors

This industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions,

alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

235420 Drywall, Plastering, Acoustical, and Insulation Contractors

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, acoustical, and building insulation work. The drywall, plaster work, acoustical, and insulation work performed includes new work, additions, alterations, and maintenance and repairs. Plaster work includes applying plain or ornamental plaster, including installation of lathing to receive plaster.

The data published with NAICS code 235420 include the following SIC industries:

1742 Plastering, drywall, acoustical, and insulation work special trade contractors

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

1771 Concrete work special trade contractors (pt)

23543 Tile, Marble, Terrazzo, and Mosaic Contractors

This industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

235430 Tile, Marble, Terrazzo, and Mosaic Contractors

This U.S. industry comprises establishments primarily engaged in (1) setting and installing ceramic tile, marble (interior only), terrazzo, and mosaic and/or (2) mixing marble particles and cement to make terrazzo at the job site. The tile, marble, terrazzo, and mosaic work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235430 include the following SIC industry:

1743 Terrazzo, tile, marble, and mosaic work special trade contractors (pt)

2355 Carpentry and Floor Contractors

This NAICS Industry Group includes establishments classified in the following NAICS Industries: 23551, Carpentry Contractors; and 23552, Floor Laying and Other Floor Contractors.

23551 Carpentry Contractors

This industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions,

alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

235510 Carpentry Contractors

This U.S. industry comprises establishments primarily engaged in framing, carpentry, and finishing work. The carpentry work performed includes new work, additions, alterations, and maintenance and repairs. Activities performed by establishments in this industry range from the installation of doors and windows to paneling, steel framing work, and ship joinery.

The data published with NAICS code 235510 include the following SIC industry:

1751 Carpentry work special trade contractors

23552 Floor Laying and Other Floor Contractors

This industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

235520 Floor Laying and Other Floor Contractors

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and wood or resilient flooring. The floor laying and other floor work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235520 include the following SIC industry:

1752 Floor laying and other floor work special trade contractors, n.e.c.

2356 Roofing, Siding, and Sheet Metal Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23561, Roofing, Siding, and Sheet Metal Contractors.

23561 Roofing, Siding, and Sheet Metal Contractors

This industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

235610 Roofing, Siding, and Sheet Metal Contractors

This U.S. industry comprises establishments primarily engaged in the installation of roofing, siding, sheet metal work, and roof drainage-related work, such as downspouts and gutters. Activities performed by these establishments also include treating roofs (i.e., by spraying, painting, or coating), copper smithing, tin smithing, installing skylights, installing metal ceilings, flashing, duct work, and capping. The roofing, siding, and sheet metal work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235610 include the following SIC industry:

1761 Roofing, siding, and sheet metal work special trade contractors

2357 Concrete Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23571, Concrete Contractors.

23571 Concrete Contractors

This industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

235710 Concrete Contractors

This U.S. industry comprises establishments primarily engaged in the use of concrete and asphalt to produce parking areas, building foundations, structures, and retaining walls, and in the use of all materials to produce patios, private driveways, and private walks. Activities performed by these establishments include grout and shotcrete work. The concrete work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235710 include the following SIC industry:

1771 Concrete work special trade contractors (pt)

2358 Water Well Drilling Contractors

This NAICS Industry Group includes establishments classified in NAICS Industry 23581, Water Well Drilling Contractors.

23581 Water Well Drilling Contractors

This industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

235810 Water Well Drilling Contractors

This U.S. industry comprises establishments primarily engaged in drilling, tapping, and capping of water wells, and geothermal drilling. The water well drilling work performed includes new work, servicing, and maintenance and repairs.

The data published with NAICS code 235810 include the following SIC industry:

1781 Water well drilling special trade contractors

2359 Other Special Trade Contractors

This industry group comprises establishments primarily engaged in specialized construction activities (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring work, roofing, siding, sheet metal, concrete, and water well drilling).

23591 Structural Steel Erection Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

235910 Structural Steel Erection Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) erecting metal, structural steel, and similar products of prestressed or precast concrete to produce structural elements, building exteriors, and elevator fronts; (2) setting rods, bars, rebar, mesh, and cages, to reinforce poured-in-place concrete; and (3) erecting cooling towers and metal storage tanks. The structural steel erection work performed includes new work, additions, alterations, reconstruction, and maintenance and repairs.

The data published with NAICS code 235910 include the following SIC industry:

1791 Structural steel erection special trade contractors

23592 Glass and Glazing Contractors

This industry comprises establishments primarily engaged in installing glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs. 235920 Glass and Glazing Contractors This U.S. industry comprises establishments primarily engaged in installing

glass (i.e., glazing work) and/or tinting glass. The glass work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235920 include the following SIC industries:

1793 Glass and glazing work special trade contractors

1799 Special trade contractors, n.e.c. (pt)

23593 Excavation Contractors

This industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

235930 Excavation Contractors

This U.S. industry comprises establishments primarily engaged in preparing land for building construction. Activities performed by these establishments are drilling shafts, foundation digging, foundation drilling, and grading. The excavation work performed includes new work, additions, alterations, and repairs.

The data published with NAICS code 235930 include the following SIC industry:

1794 Excavation work special trade contractors

23594 Wrecking and Demolition Contractors

This industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

235940 Wrecking and Demolition Contractors

This U.S. industry comprises establishments primarily engaged in the wrecking and demolition of buildings and other structures, including underground tank removal and the dismantling of steel oil tanks, except those for hazardous materials. The establishments engaged in wrecking and demolition work may or may not sell materials derived from demolishing operations.

The data published with NAICS code 235940 include the following SIC industry:

1795 Wrecking and demolition work special trade contractors

23595 Building Equipment and Other Machinery Installation Contractors

This industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or

other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

235950 Building Equipment and Other Machinery Installation Contractors

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the installation or dismantling of building equipment, machinery or other industrial equipment (except plumbing, heating, air conditioning or electrical equipment); (2) machine rigging; and (3) millwrighting. Types of equipment installed include automated and revolving doors, conveyor systems, dumbwaiters, dust collecting equipment, elevators, small incinerators, pneumatic tubes systems, and built-in vacuum cleaning systems. The building equipment and other machinery installation work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235950 include the following SIC industry:

1796 Installation or erection of building equipment, special trade contractors, n.e.c.

23599 All Other Special Trade Contractors

This industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these

establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

235990 All Other Special Trade Contractors

This U.S. industry comprises establishments primarily engaged in specialized construction work, (except plumbing, painting, electrical, masonry, drywall, insulation, tile, carpentry, flooring, roofing, siding, sheet metal work, concrete work, glass and glazing, structural steel erection, excavation, wrecking and demolition, and building equipment installation work). Activities undertaken by these establishments include constructing swimming pools and fences, house moving, waterproofing, dewatering, damp-proofing, fireproofing, and sandblasting; installing antennas, artificial turf, awnings, countertops, fire escapes, forms for poured concrete, gasoline pumps, lightning conductors, ornamental metal, shoring systems, and signs (on buildings); and specialized activities, such as bathtub refinishing, coating and glazing of concrete surfaces, gas leakage detection, insulation of pipes and boilers, mobile home site setup and tie-down, posthole digging, radon remediation, scaffolding work, and on-site welding. The other special trade work performed includes new work, additions, alterations, and maintenance and repairs.

The data published with NAICS code 235990 include the following SIC industry:

1799 Special trade contractors, n.e.c. (pt)

Appendix C.

Coverage and Methodology

THE SAMPLE FRAME

The universe for the construction sector includes approximately 650,000 establishments. This includes only those construction establishments with at least one paid employee in 1997. Census reports were mailed to a sample of approximately 130,000 establishments.

The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) which are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey.

While the IRS-SSA list usually provided sufficient classification information to assign a company to the proper economic sector, there were cases for which the information was incomplete or missing. A classification form was mailed to companies with insufficient information to be assigned to an industry. This form requested information on the nature of the company's activities. Companies determined to be in scope of the construction sector subsequent to the census mailout were treated as a supplement to the universe rather than part of the sample frame.

SAMPLE SELECTION

The major objective of the sample design was to provide a sample that would provide reliable estimates for each state and construction industry. A stratified random sample was designed. Within each state by industry cell, six strata were defined.

- Stratum 1 was comprised of approximately 12,000 establishments of companies that had operations of any type at more than one location. These establishments of multiunit companies were included in the construction sample with certainty.
- Strata 2-6 were comprised of single-location companies. For each industry, payroll cut-offs were determined at the U.S. level and used to define the payroll ranges for each of the strata 2-6 across all states.

All establishments in stratum 2 were included in the construction sample with certainty. These consisted of the largest single-location construction companies.

For strata 3-6, a random sample of establishments was selected. The general strategy was to sample the strata containing larger establishments at a higher rate than those containing small establishments. The minimum sample rate was 1 in 20.

For five industries, the U.S. population in the sample frame was quite small. For these industries, all establishments in the sample frame were included in the sample with certainty. These industries were as follows:

- SIC 1622: Bridge, Tunnel, and Elevated Highway Construction Contractors
- SIC 1795: Wrecking and Demolition Work
- SIC 1796: Installation or Erection of Building Equipment, Not Elsewhere Classified
- SIC 7353: Equipment Rental with Operators
- SIC 8741: Construction Management

ESTIMATION AND VARIANCES

Based on the response data, establishments were assigned to the appropriate NAICS industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

Variations of the estimated items were derived at the state level, industry, and by stratum using standard stratified random sample formulas. Variations were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF THE ESTIMATES

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors which are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges, that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To

some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each establishment covered in the construction sector was classified in one of twenty eight industries in accordance with the industry definitions in the 1997 NAICS (North American Industry Classification System) manual. The U.S. Census Bureau first used NAICS to classify industries for 1997 economic census data. Prior to this the U.S. Census Bureau used SIC (Standard Industrial Classification) for industry classification. The differences between NAICS and SIC are outlined in Appendix A of the 1997 NAICS manual.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added, value of business, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 1997, there are 3 subsectors (three-digit NAICS), 14 industry groups (four-digit NAICS), and 28 NAICS industries (five- and six-digit NAICS). The five-digit NAICS is supposed to be the level at which there is comparability with the Canadian and Mexican classification systems. However, agreement had not been reached with these countries at the time of the 1997 Economic Census regarding the classification of construction industries. The 28 five- and six-digit NAICS construction industries are the result of an expansion and a restructuring of the 26 four-digit SIC industries of 1987.

ESTABLISHMENT BASIS OF REPORTING

The construction sector is conducted on an establishment basis. A construction establishment is defined as a relatively permanent office or other place of business where the usual business activities related to construction

are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained. If a separate establishment report could not be prepared for each activity, then a construction report was

requested covering all activities of that establishment providing that the value of construction work exceeded the gross receipts from each of its other activities.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Detailed SIC Code Titles: 1997

[The SIC code title shown in Table 1 is a standard SIC title from the Standard Industrial Classification Manual. A more detailed title description for the SIC code shown in Table 1 is included in this appendix]

SIC code	Detailed industry title description	SIC code	Detailed industry title description
15	GENERAL BUILDING CONTRACTORS	17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)—Con.
152100	General contractors—single-family houses	175100	Carpentry work
152210	General contractors—hotel and motel construction	175200	Floor laying and other floor work, n.e.c
152220	General contractors—residential buildings, other than single-family, except hotel and motel construction	176100	Roofing, siding, and sheet metal work
153110	Operative builders, single-family housing construction	177110	Stucco construction
153120	Operative builders, multifamily housing construction	177120	Concrete work, except stucco construction
153130	Operative builders, manufacturing and light industrial building construction	178100	Water well drilling
153140	Operative builders, commercial and institutional building construction	179100	Structural steel erection
154110	General contractors—commercial warehouse construction	179300	Glass and glazing work
154120	General contractors—industrial buildings and warehouse construction	179400	Excavation work
154200	General contractors—nonresidential buildings, other than industrial buildings and warehouses	179500	Wrecking and demolition work
		179600	Installation or erection of building equipment, n.e.c
		179910	Paint and wallpaper stripping and wallpaper removal contractors
		179920	Tinting glass contractors
		179940	All other special trade contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION	65	REAL ESTATE—CONSTRUCTION LAND SUBDIVIDERS AND DEVELOPERS
161100	Highway and street construction, except elevated highways	655200	Land subdividers and developers, except cemeteries
162200	Bridge, tunnel, and elevated highway construction	73	BUSINESS SERVICES—CONSTRUCTION EQUIPMENT RENTAL AND LEASING, WITH OPERATOR
162310	Water, sewer, and pipeline construction	735320	Heavy construction equipment rental and leasing, with operator
162320	Power and communication transmission line construction	87	ENGINEERING AND MANAGEMENT SERVICES—CONSTRUCTION MANAGEMENT FOR BUILDINGS AND HEAVY CONSTRUCTION
162910	Industrial nonbuilding construction	874121	Construction management—single-family housing construction
162920	Other heavy construction	874122	Construction management—multifamily housing construction
17	SPECIAL TRADE CONTRACTORS (EXCLUDING LEAD PAINT REMOVAL AND ASBESTOS ABATEMENT)	874123	Construction management—manufacturing and industrial building construction
171100	Plumbing, heating, and air-conditioning	874124	Construction management—commercial and institutional building construction
172100	Painting and paper hanging	874131	Construction management—highway and street construction
173100	Electrical work	874132	Construction management—bridge and tunnel construction
174100	Masonry, stone setting, and other stone work	874133	Construction management—water, sewer, and pipeline construction
174200	Plastering, drywall, acoustical, and insulation work	874134	Construction management—power and communication transmission line construction
174310	Fresco work	874135	Construction management—industrial nonbuilding construction
174320	Terrazzo, tile, marble, and mosaic work, except fresco work	874136	Construction management—all other heavy construction

