

**SUMMARY OF  
NATIONAL  
TRANSPORTATION  
STATISTICS**



JUNE 1975

**FINAL REPORT**

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16. Abstract <p>This report is a compendium of selected national-level transportation statistics. Included are cost, inventory, and performance data describing the passenger and cargo operations of the following modes: air carrier, general aviation, automobile, bus, truck, local transit, rail, water, and oil pipeline. The report includes basic descriptors of U.S. transportation, such as operating revenues and expenses, number of vehicles and employees, vehicle-miles and passenger miles, etc.</p> <p>As its name implies, the report is a summary of a larger data base, consisting of time-series collected from a variety of government and private statistical handbooks. In this edition, the selected data cover the period 1963 through 1973.</p>					
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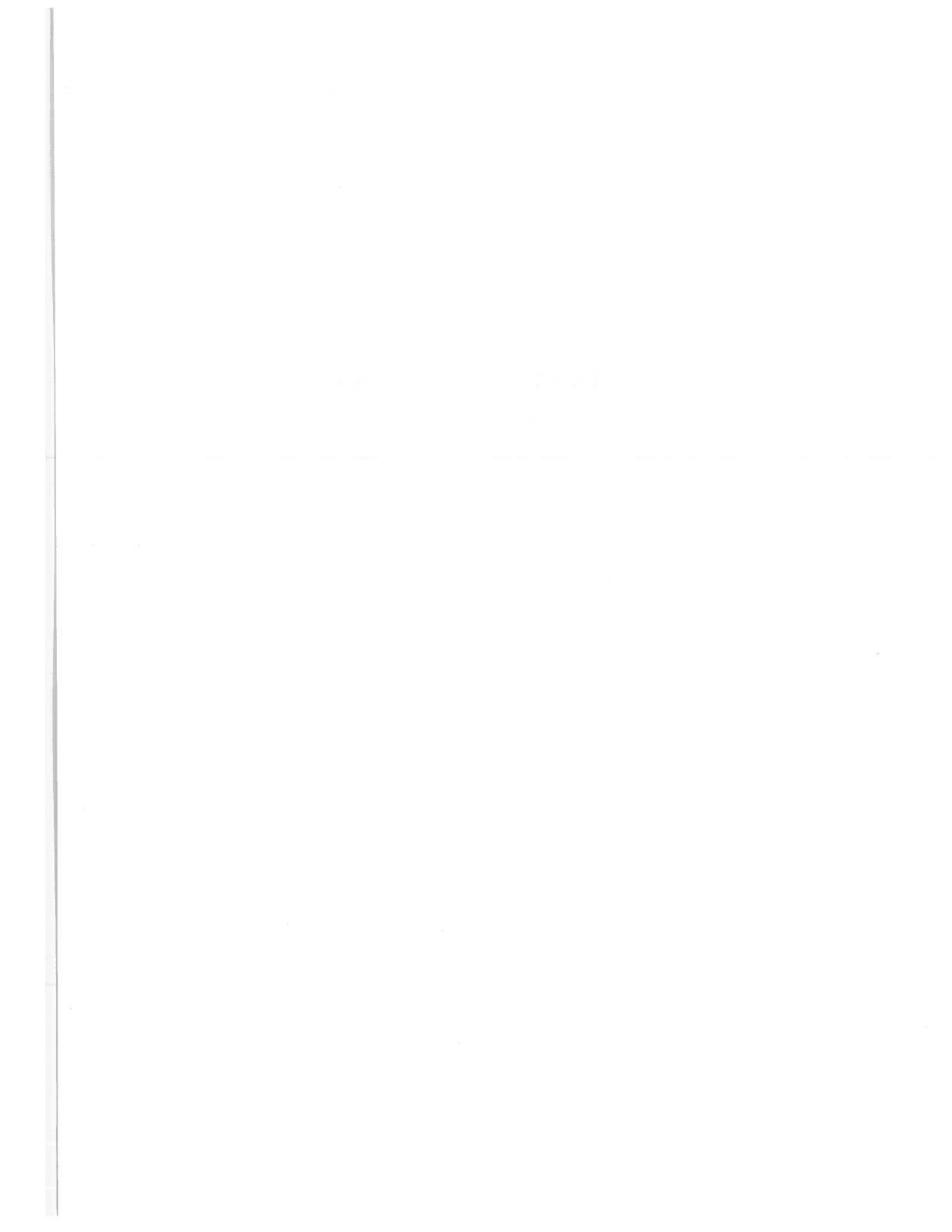
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# **INTRODUCTION**



## INTRODUCTION

The 1975 edition of the *Summary of National Transportation Statistics* is essentially an updated version of the 1974 edition, although some new tables and graphs have been added to the section called "Transportation, Energy, and the Environment".

Because of the growth in the demand for information on energy, we have recently published a compendium of energy supply and demand data in a separate report entitled *Energy Statistics—A Supplement to the Summary of National Transportation Statistics*.

The statistical summaries in this document are of three types: (1) tree displays, (2) modal profiles, and (3) transportation trends. The data base from which the summaries have been drawn consists of time series covering the years 1963 - 1973.

Data summarization involves the selection of certain statistics from the data base and displaying them in such a fashion that comparisons of transportation measures and trends can be made with ease. The first step in this process is to place the selected data in a logical framework.

In general, the data can be divided into three main categories: cost, inventory, and performance. The following list indicates the type of data included in each group:

- I. Cost
  - A. Expenditures (private modes)
  - B. Revenue (for-hire modes)
  - C. Operating expenses
  - D. Federal expenditures
  - E. State and local expenditures
  
- II. Inventory
  - A. Number of companies
  - B. Number of vehicles
  - C. Number of employees
  - D. Mileage
  
- III. Performance
  - A. Vehicle-miles
  - B. Passenger-miles
  - C. Number of passengers carried
  - D. Ton-miles
  - E. Tons of freight hauled
  - F. Average passenger trip length
  - G. Average length of freight haul
  - H. Average speed
  - I. Number of fatalities
  - J. Number of fatal accidents
  - K. Total number of accidents

As illustrated in figure 1, the data set can be described as cost, inventory, and performance statistics for each of the following major modal categories; highway, rail, air, water, pipeline, international air, and international water.

Figure 2 illustrates the detailed modal breakdown used in this report. The dotted lines indicate alternative groupings, e.g., "subway and elevated" can be considered a subset of both "local transit" and "rail."

The framework presented in figure 2 is flexible, for it reflects the structures of the various sources of transportation data. One should notice, for example, that the breakdown of the general aviation category comes from the Federal Aviation Administration *Statistical Handbook of Aviation*.

**Tree Displays.** Figure 2 provides the format for the tree displays. By placing numbers in the appropriate cells of the tree, it is possible to present one year's data for a given generalized measure for all modes of transportation. The following data are presented in tree format:

- A. Expenditures and revenues (1973)
- B. Vehicle-miles (1973)
- C. Passenger-miles (1973)
- D. Ton-miles (1973)
- E. Number of vehicles (1973)
- F. Fatalities (1973)

Some precision in definition is lost with this display technique, but the source information in the appendix attempts to qualify the statistics requiring further explanation.

**Modal Profiles.** A modal profile lists the most recent cost, inventory, and performance data available in the data base for a given mode. It is important to note that not all of the measures listed on page 1 are available for each mode, nor are they always applicable. This is clearly illustrated by the difference in the type and amount of data recorded for air carrier and oil pipeline.

Our intent was to provide 1963 and 1973 values for each measure. In some instances the 1973 value is not available, and either the 1972 or most recent value is listed instead.

**Transportation Trends.** Included in these tables are annual data from 1963 to 1973. A variety of cost, inventory, and performance items are represented in this section.

**Supplementary Data.** There has been a growing demand for data that relate transportation to the overall economy and the environment. This report touches on some of the major topics, such as national income derived from transportation, oil pollution from tanker accidents, and noise pollution from transportation sources.

**Source Information and Glossary of Terms.** Appendix A is a detailed listing of the sources of data contained in this document. A special footnote system has been devised for the tree displays (fig. 3-8). In figure 3, for example, the "local transit" cell contains the standard reference number (19) in the upper right-hand corner. In appendix A under figure 3 we find the number (19), after which the source of the local transit datum is given.

Feeling that the usefulness of transportation data depends greatly on clarity of definition, we have included in appendix B a glossary of terms. This section is organized by mode and has been assembled from existing glossaries, such as that in the Civil Aeronautics Board *Handbook of Airline Statistics*. The lack of comparable glossaries in other statistical handbooks makes it difficult to prepare a complete dictionary.

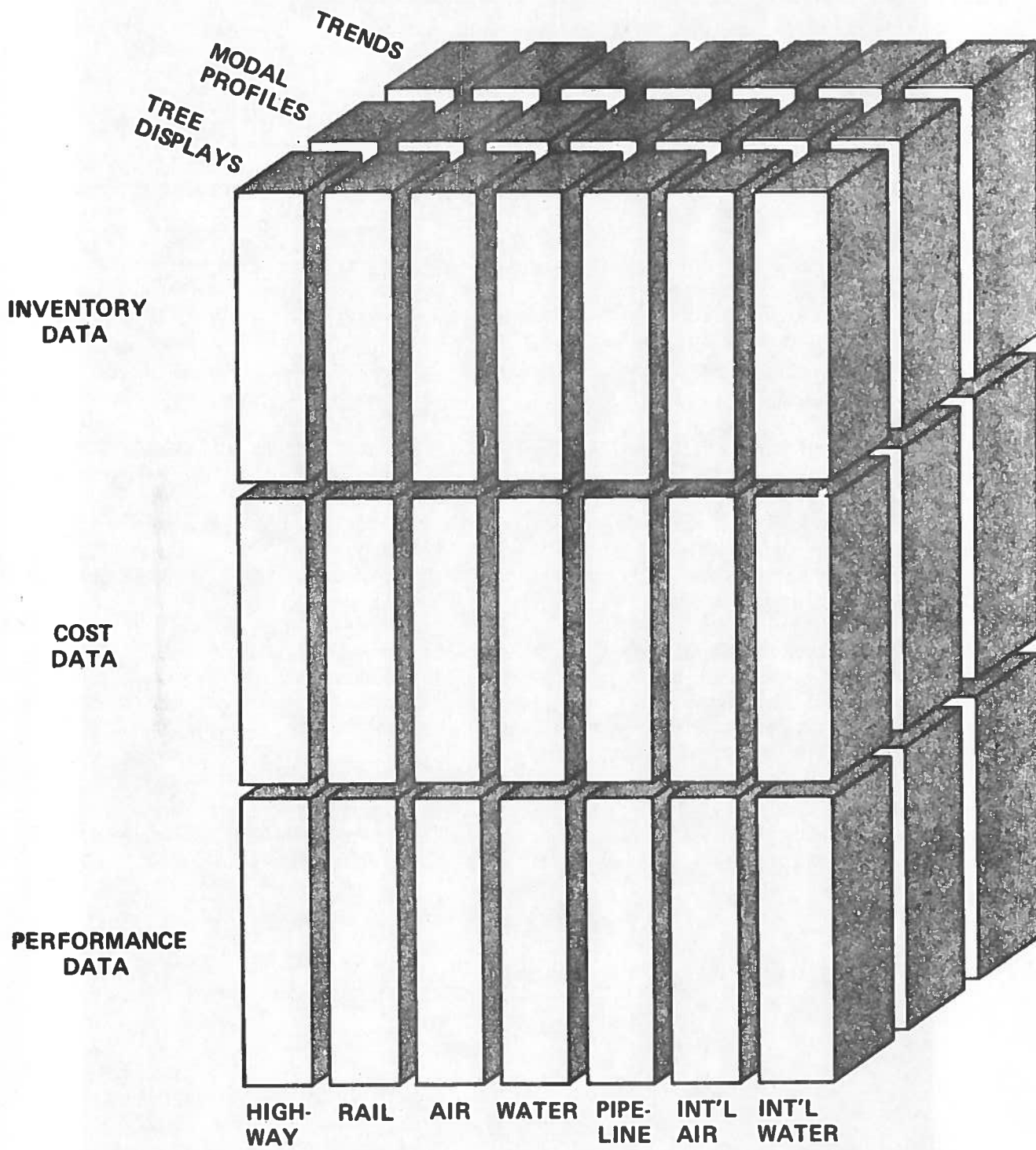


Figure 1. Organization of the Data

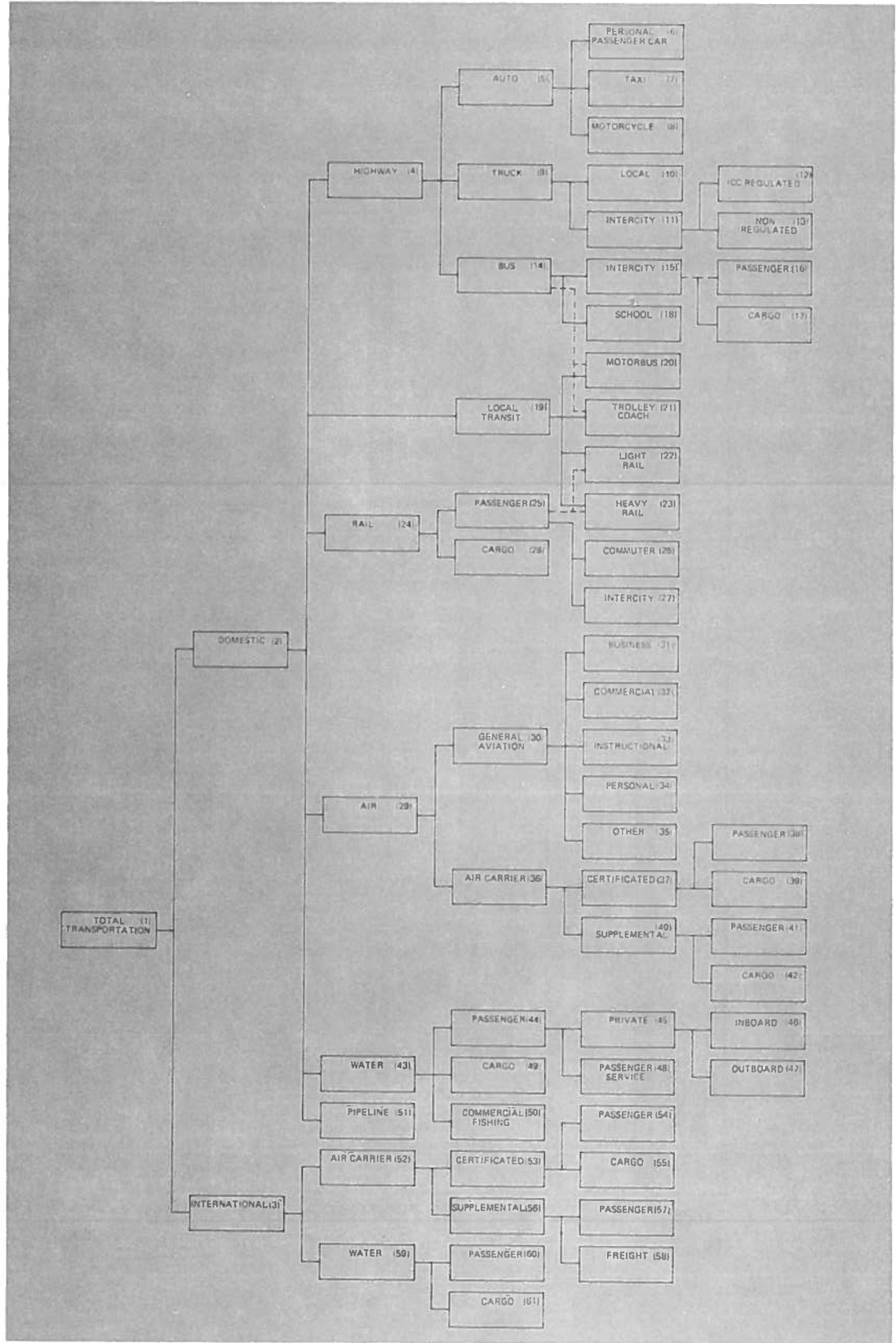
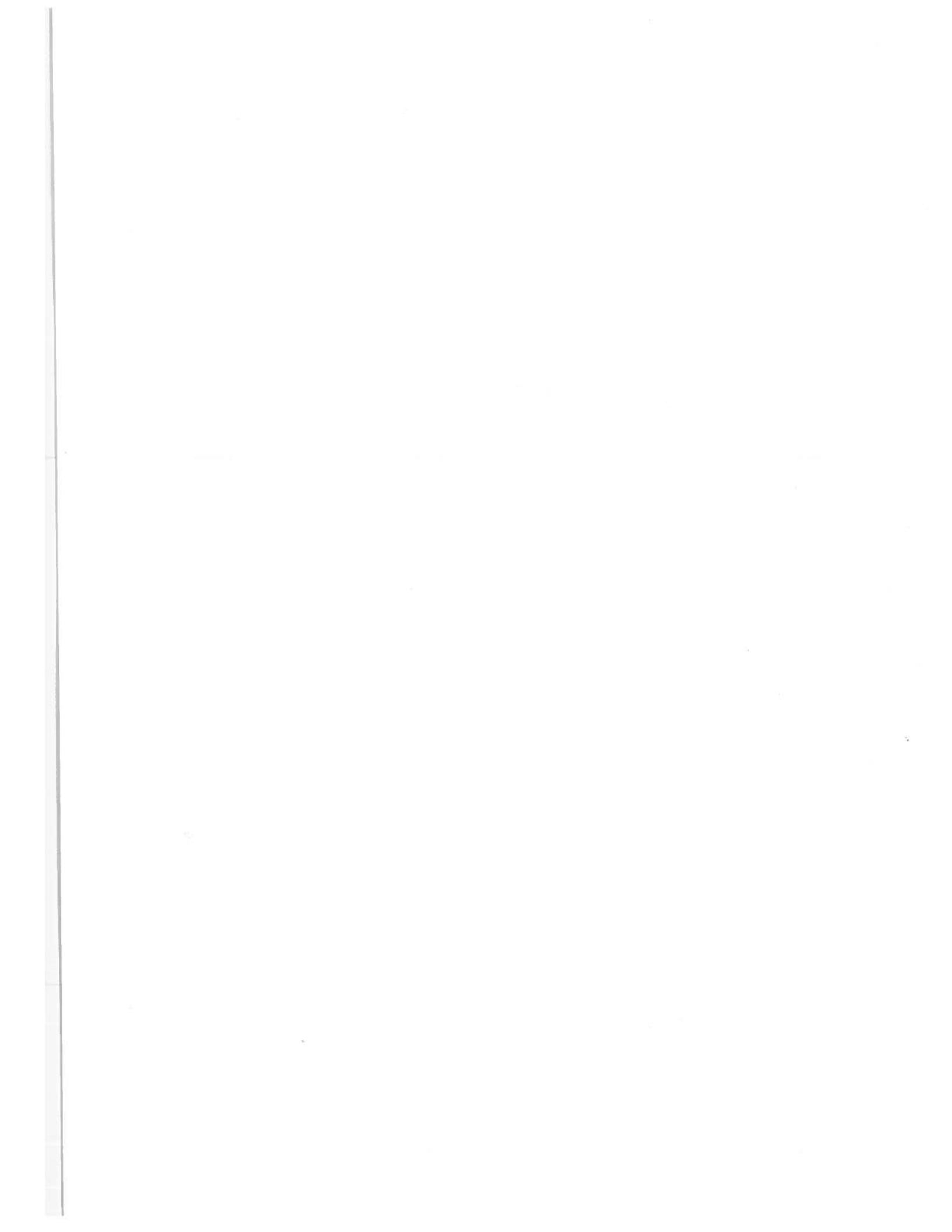
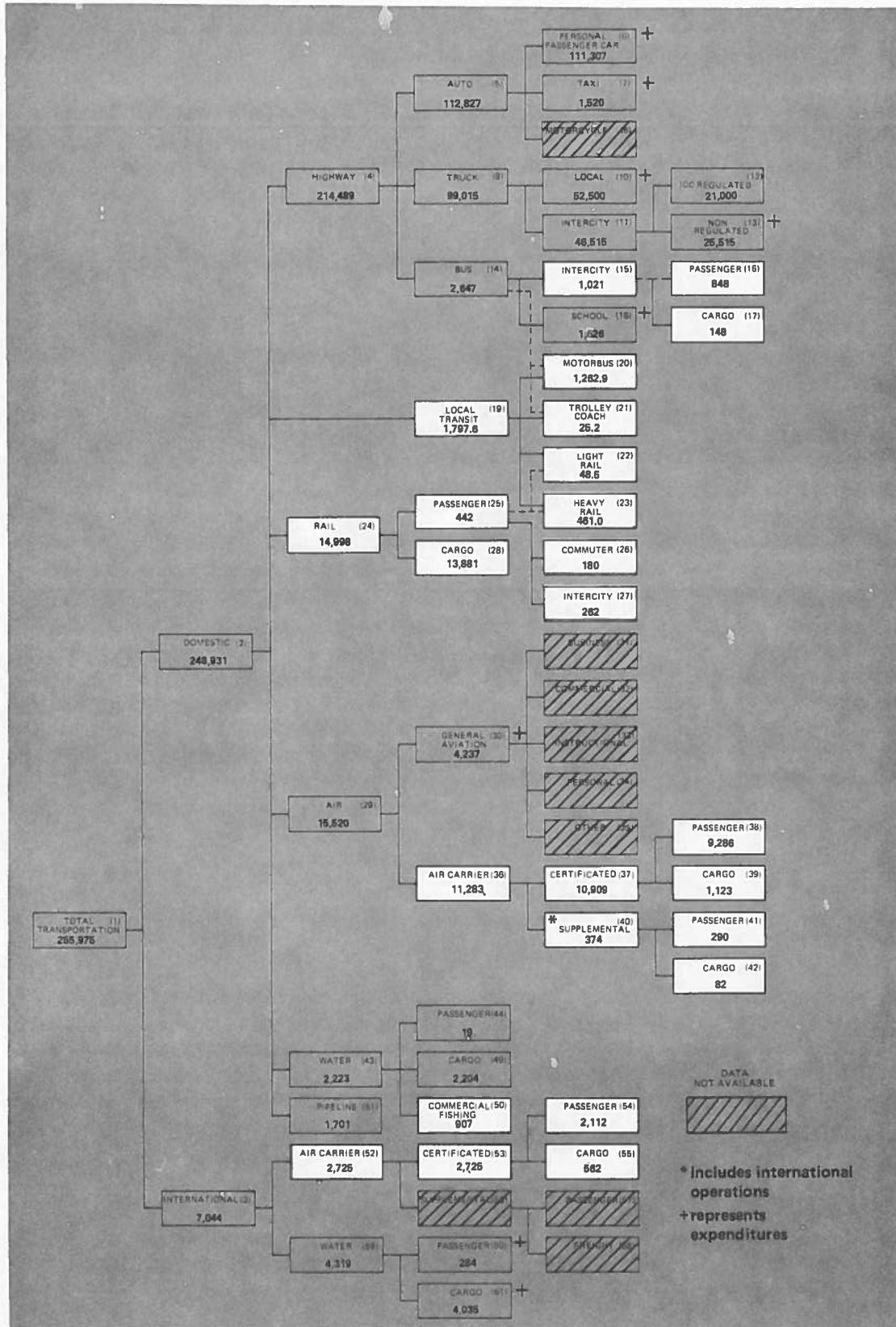


Figure 2. Modal Structure

# TREE DISPLAYS

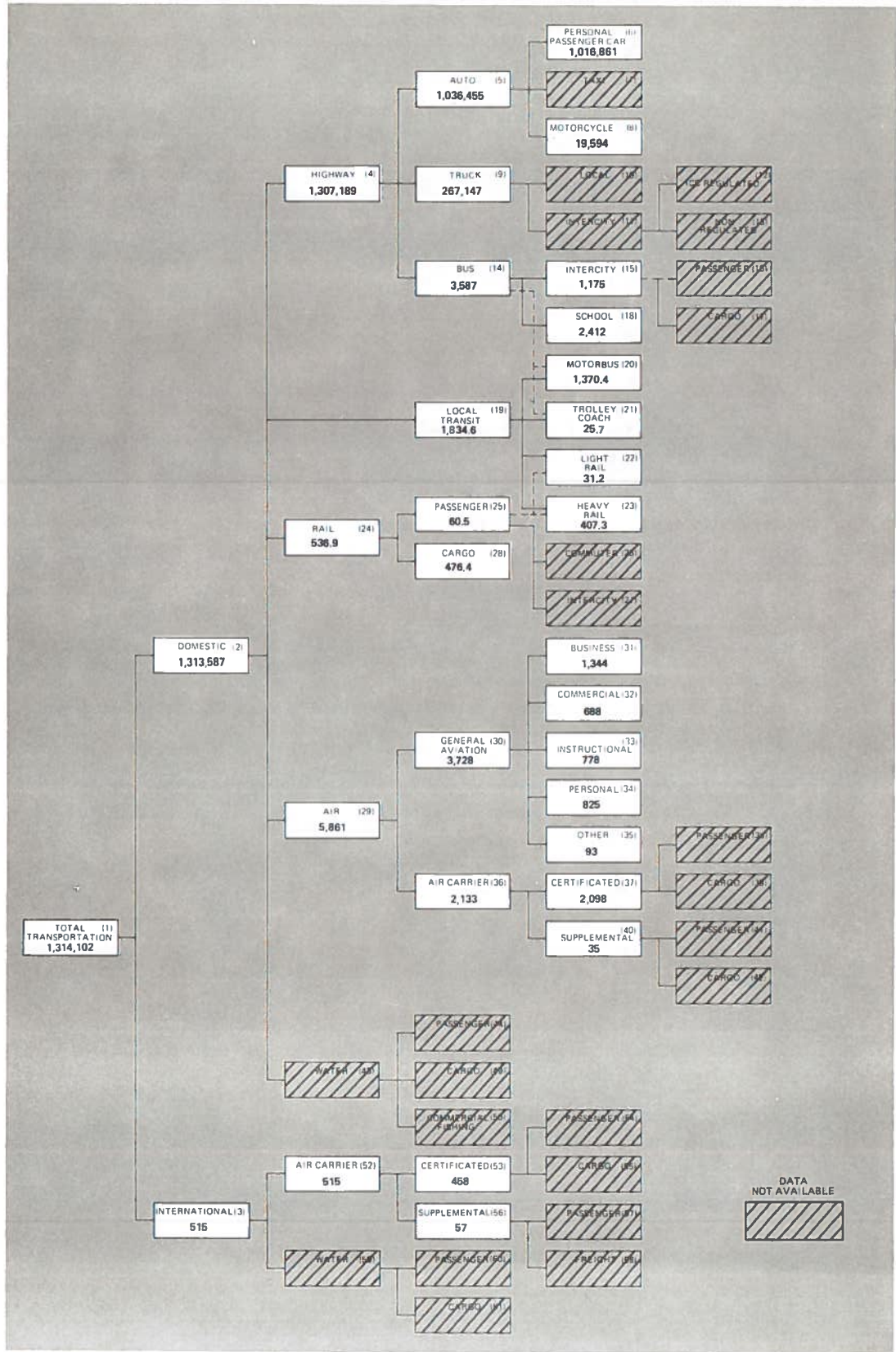






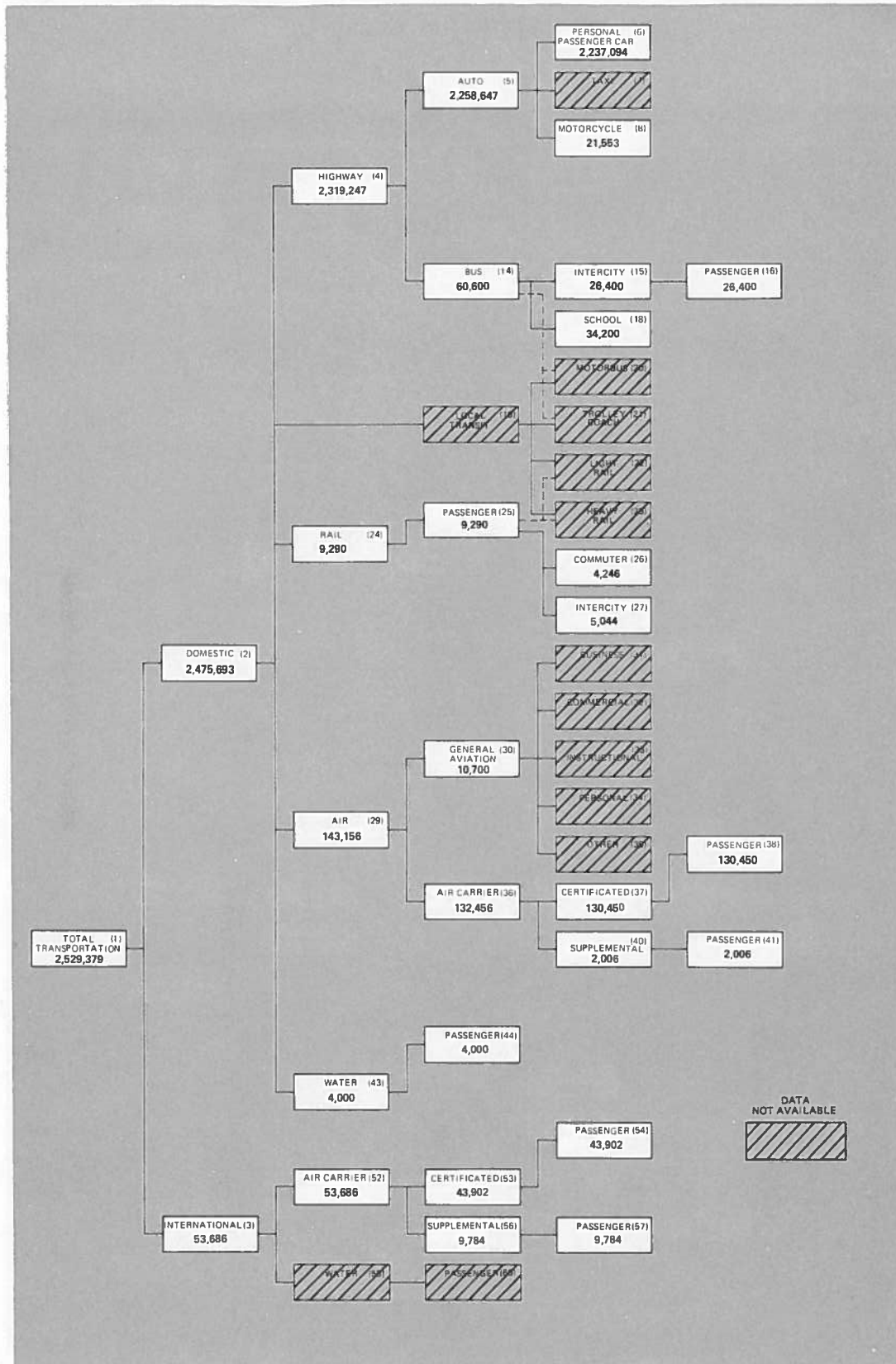
Sources: See pages 123, 124, and 125.

Figure 3. Expenditures and Revenues (\$ Millions) - 1973



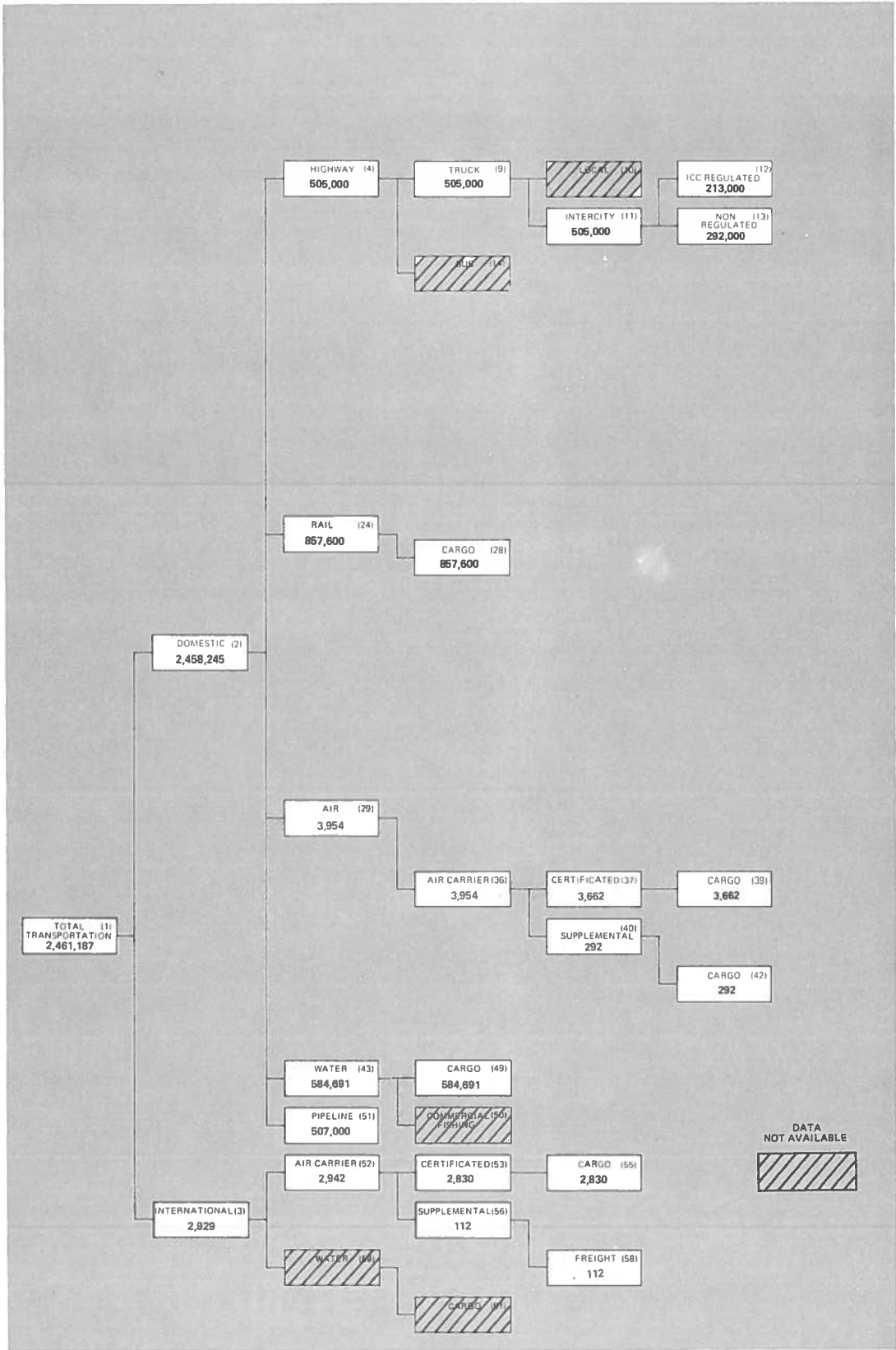
Sources: See pages 125, 126, and 127.

Figure 4. Vehicle-Miles (Millions) - 1973



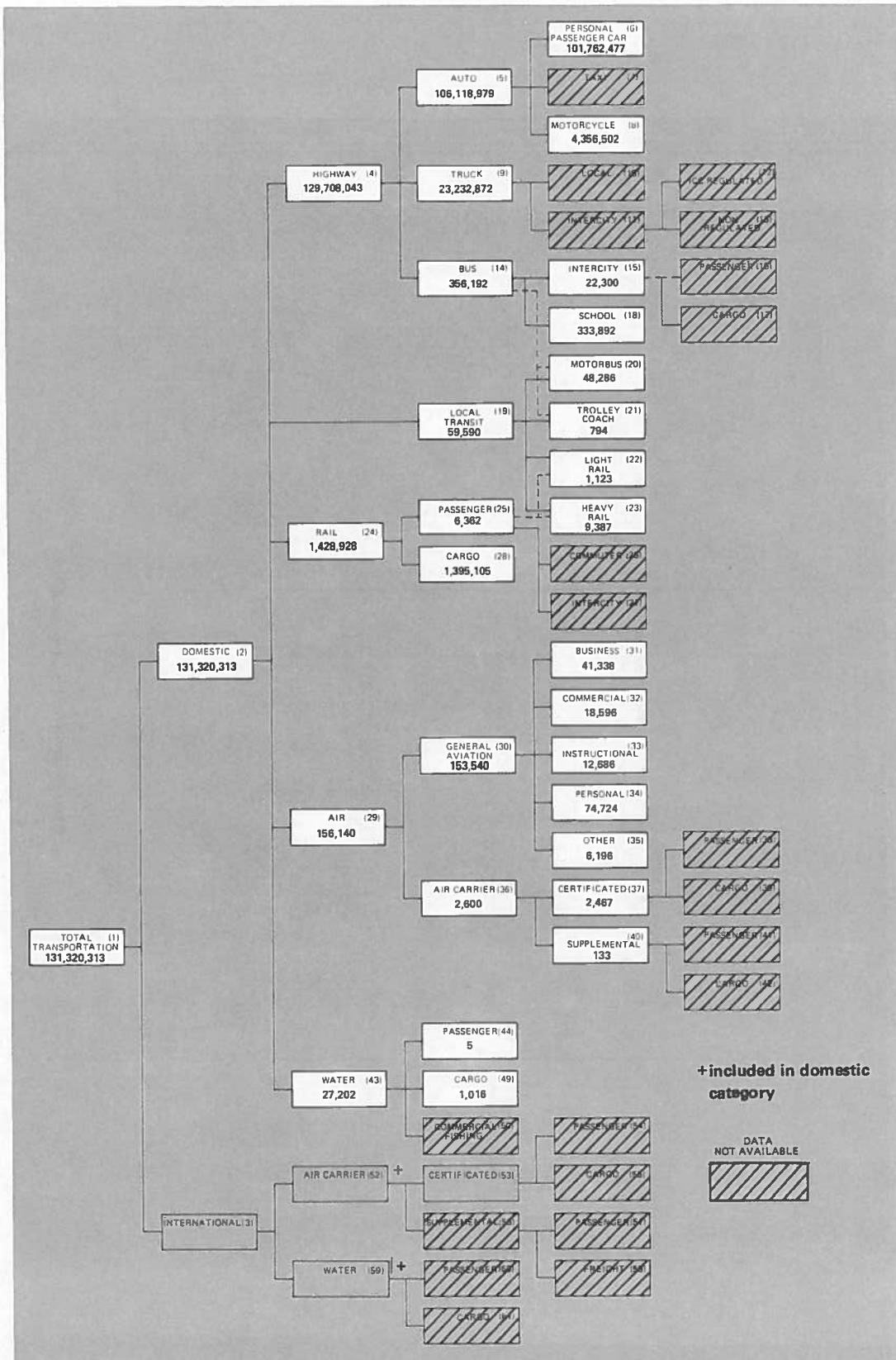
Sources: See pages 127 and 128.

Figure 5. Passenger-Miles (Millions) - 1973



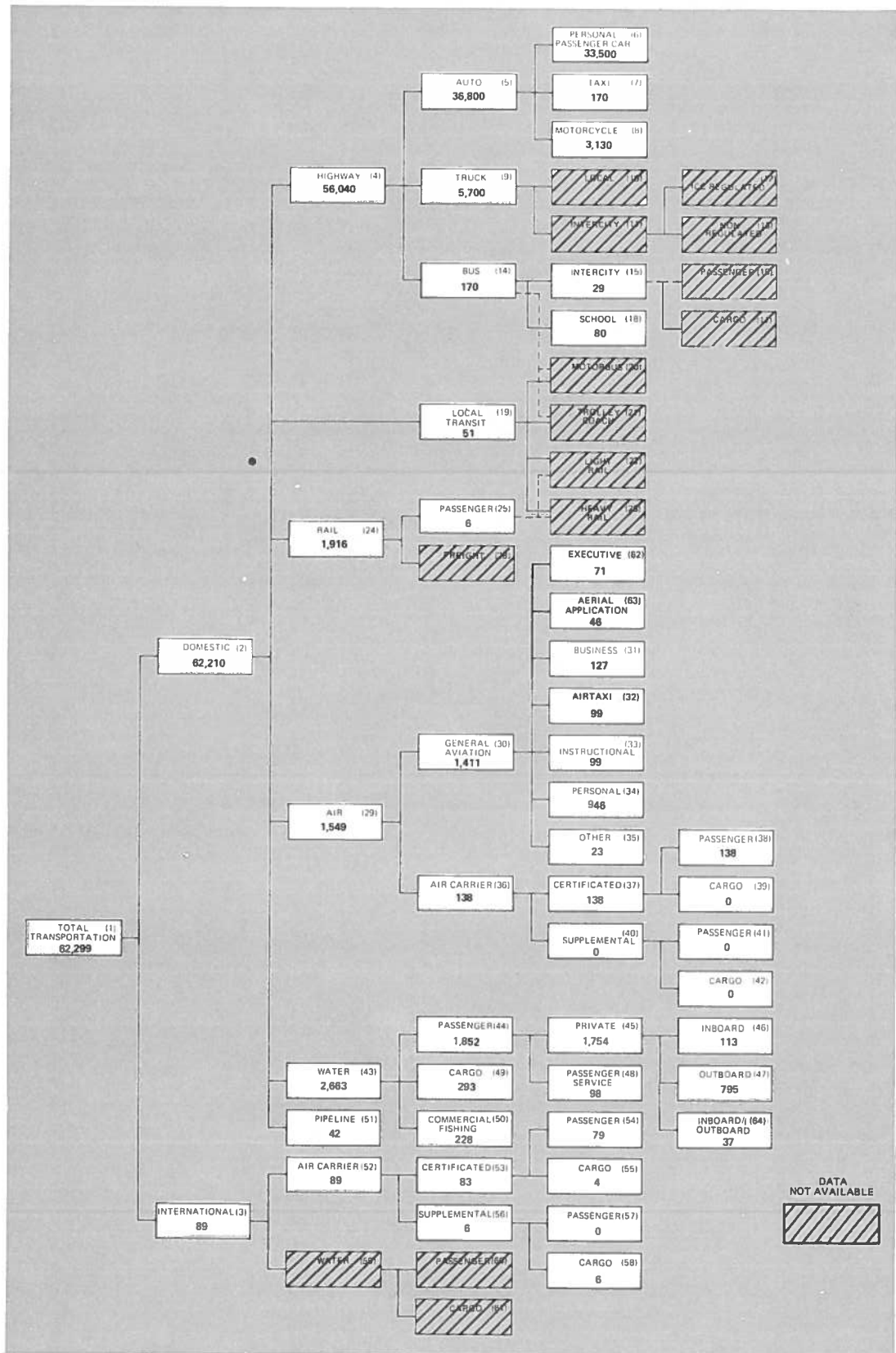
Sources: See pages 128 and 129.

Figure 6. Cargo Ton-Miles (Millions) - 1973



Sources: See pages 129, 130, and 131.

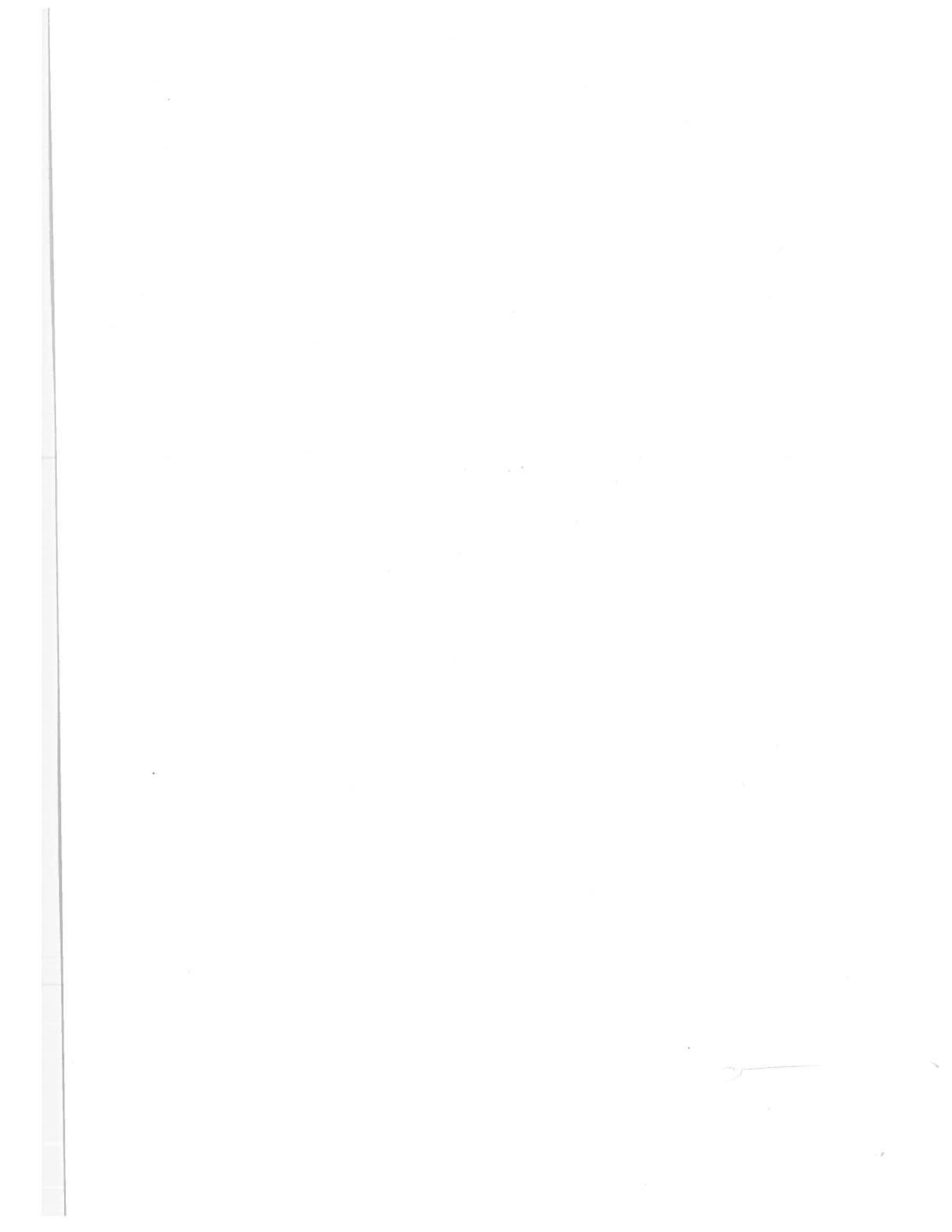
Figure 7. Number of Vehicles - 1973



Sources: See pages 131, 132, and 133.

Figure 8. Number of Fatalities - 1973

# **MODAL PROFILES**





## Modal Profile Source References and % Change Calculations

The 1975 Modal Profiles have been augmented to provide specific page references for each Profile data element and to permit comparison of the most recent data entries (1973) with the 1963 and 1972 data entries.

Specific page references are obtained as follows: The first data element at the top of each Profile data column is directly followed to its right by an italicized page reference letter. This reference letter then applies to all subsequent data elements in that Profile column until the next page reference letter occurs. The next reference letter then applies to the Profile data element on its left and to all subsequent data in that Profile column until the next page reference occurs. The specific source and page reference may then be found in the list of sources at the end of that particular Profile.

The % Change 1972-1973 column refers to the usual percent difference between 1973 data and 1972 data. Annual % Change 1963-1973 is obtained from the relation:  $D_{73} = D_{63} (1 + X)^{10}$  where  $D_{63}$  and  $D_{73}$  refer to 1963 and 1973 data respectively and  $X \times 100\%$  is the Annual % Change 1963-1973.

## AIR CARRIER PROFILE

I. FINANCIAL	<u>1963</u>	<u>1972</u>	<u>1973</u>	1963-1973 Average Annual % Change	1972-1973 % Change
<b>Operating Revenues (\$ millions)</b>					
Certificated carriers, total domestic operations					
Transport revenues	2,696.8 <i>a</i>	8,499.4 <i>k</i>	9,529.6 <i>k</i>	13.5	12.1
Nontransport revenues	93.3	152.4	164.4	5.8	7.9
Total operating revenues	2,790.0	8,651.8	9,694.0	13.3	12.0
Certificated carriers, total international operations					
Transport revenues	957.1 <i>b</i>	2,260.5 <i>l</i>	2,484.1 <i>s</i>	10.0	9.9
Nontransport revenues	11.9	23.8	42.8	13.7	79.8
Total operating revenues	969.0	2,284.3	2,526.9	10.1	10.6
Supplemental carriers, domestic plus international operations					
Transport revenues	n/a	328.5 <i>m</i>	372.1 <i>m</i>	n/a	13.3
Nontransport revenues	n/a	2.6	2.1	n/a	-19.2
Total operating revenues	n/a	331.1	374.2	n/a	13.0
<b>Operating Expenses (\$ millions)</b>					
Certificated carriers, domestic operations					
	2,646.1 <i>a</i>	8,158.5 <i>k</i>	9,201.0 <i>k</i>	13.3	12.8
Certificated carriers, international operations					
	833.1 <i>b</i>	2,233.9 <i>s</i>	2,459.4 <i>s</i>	11.4	10.1
Supplemental carriers, domestic plus international operations					
	n/a	326.8 <i>m</i>	380.9 <i>m</i>	n/a	16.6
 <b>II. INVENTORY</b>					
<b>Number of carriers</b>					
Domestic and international					
Certificated	51 <i>d</i>	39 <i>d</i>	34 <i>c</i>	-4.0	-12.8
Supplemental	n/a	10 <i>c</i>	14	n/a	40.0
<b>Number of Aircraft Available for Service</b>					
Domestic and international					
Certificated, all services	1,832 <i>c</i>	2,518 <i>d</i>	2,467	3.0	-2.0
Supplemental	173	156 <i>c</i>	133	-2.6	-14.7
<b>Number of Employees</b>					
Domestic					
Certificated, all services	144,745 <i>e</i>	254,616 <i>e</i>	265,231	6.2	4.2
Supplemental	2,007	5,002	5,403	10.4	8.0
International					
Certificated, all services	34,190	46,947	46,588	3.1	-0.8

### AIR CARRIER PROFILE (cont.)

III. PERFORMANCE	<u>1963</u>	<u>1972</u>	<u>1973</u>	1963-1973 Average Annual % Change	1972-1973 % Change
<b>Aircraft Revenue-Miles (millions)</b>					
Domestic					
Certificated, all services .....	926.2 <i>f</i>	2,041.7 <i>n</i>	2,097.8 <i>x</i>	8.5	2.7
Scheduled service .....	896.7	1,999.5	2,057.7	8.7	2.9
Nonscheduled service .....	29.5	42.2	40.1	3.1	-5.0
Supplemental .....	n/a	32.4 <i>o</i>	35.0 <i>y</i>	n/a	8.0
International					
Certificated, all services .....	217.6 <i>g</i>	468.1 <i>p</i>	457.9 <i>z</i>	7.7	-2.2
Scheduled service .....	198.3	376.3	390.4	7.0	3.7
Nonscheduled service .....	19.3	81.8	67.5	13.3	-17.5
Supplemental .....	n/a	60.4 <i>o</i>	56.8 <i>y</i>	n/a	-6.0
Total .....	n/a	2,602.6	2,646.6	n/a	1.7
<b>Revenue Passenger-Miles (millions)</b>					
Domestic					
Certificated, all services .....	39,015.5 <i>f</i>	121,820.0 <i>n</i>	130,450.1 <i>x</i>	12.8	7.1
Scheduled service .....	38,456.6	118,138.0	126,317.3	12.6	6.9
Nonscheduled service .....	558.9	3,682.0	4,132.8	22.1	12.2
Supplemental .....	n/a	1,224.1 <i>o</i>	2,005.9 <i>y</i>	n/a	63.9
International					
Certificated, all services .....	14,200.8 <i>g</i>	42,195.3 <i>p</i>	43,902.2 <i>z</i>	11.9	4.0
Scheduled service .....	11,905.4	34,268.3	35,640.0	11.6	4.0
Nonscheduled service .....	2,295.4	7,927.0	8,262.2	13.7	4.2
Supplemental .....	n/a	8,763.0 <i>o</i>	9,783.7 <i>y</i>	n/a	11.6
Total .....	n/a	174,002.4	186,142.8	n/a	7.0
<b>Revenue Passenger Load Factor (%)</b>					
Domestic and international					
Certificated scheduled service .....	53.1 <i>h</i>	53.0 <i>v</i>	52.1 <i>v</i>	-0.2	-1.7
Domestic					
Certificated scheduled service .....	53.2 <i>f</i>	52.1 <i>n</i>	51.6 <i>n</i>	-0.3	-1.0
<b>Revenue Ton-Miles of Freight<sup>1</sup> (millions)</b>					
Domestic					
Certificated all services .....	854.5	2,627.2	2,875.7	12.9	9.5
Scheduled service .....	644.6	2,480.1	2,821.9	15.9	13.8
Nonscheduled service .....	209.9	147.1	53.8	-12.7	-63.4
Supplemental .....	n/a	258.8 <i>o</i>	291.6 <i>y</i>	n/a	12.7
International					
Certificated, all services .....	420.8 <i>g</i>	2,484.3 <i>p</i>	2,307.0 <i>z</i>	18.5	-7.1
Scheduled service .....	382.0	1,737.3	1,914.8	17.5	10.2
Nonscheduled service .....	38.8	746.4	392.2	26.0	-47.5
Supplemental .....	n/a	197.9 <i>o</i>	111.9 <i>y</i>	n/a	-43.5

## AIR CARRIER PROFILE (cont.)

	<u>1963</u>	<u>1972</u>	<u>1973</u>	1963-1973 Average Annual % Change	1972-1973 % Change
<b>Average Overall Airborne Speed (mph)</b>					
Domestic					
Certificated, scheduled service . . . . .	304 <i>i</i>	415 <i>t</i>	405 <i>c</i>	2.9	-2.4
International					
Certificated, scheduled service . . . . .	418	480	481	1.4	0.2
<b>Total Number of Accidents (injury &amp; no-injury)<sup>2</sup></b>					
Certificated Air Carriers . . . . .					
Scheduled service . . . . .	66 <i>q</i>	48 <sup><i>r</i></sup> <i>q</i>	40 <i>q</i>	-4.9	-16.7
Domestic . . . . .					
Domestic . . . . .	54	46 <sup><i>r</i></sup>	36	-4.0	-21.7
International . . . . .	44	39 <sup><i>r</i></sup>	28	-4.4	-28.2
International . . . . .					
Domestic . . . . .	10	7 <sup><i>r</i></sup>	8	-2.2	14.3
Nonscheduled operations . . . . .					
Domestic . . . . .	12	2 <sup><i>r</i></sup>	4	-10.4	100.0
International . . . . .	10	2 <sup><i>r</i></sup>	4	-8.8	100.0
Supplemental Air Carriers . . . . .					
Domestic . . . . .	2	0 <sup><i>r</i></sup>	0	0.0	0.0
International . . . . .	11	2 <sup><i>r</i></sup>	3	-12.2	50.0
Domestic . . . . .					
Domestic . . . . .	11	1 <sup><i>r</i></sup>	1	-21.3	0.0
International . . . . .	0	1 <sup><i>r</i></sup>	2	0.0	100.0
<b>Number of Fatalities<sup>2</sup></b>					
Certificated Air Carriers . . . . .					
Scheduled service . . . . .	260	190	221	-1.6	16.3
Domestic . . . . .					
Domestic . . . . .	150	186	221	4.0	18.8
International . . . . .	69	185	138	7.2	-25.4
International . . . . .					
Domestic . . . . .	81	1	83	0.2	8,200.0
Nonscheduled operations . . . . .					
Domestic . . . . .	110	4	0	-100.0	-100.0
International . . . . .	9	4	0	-100.0	-100.0
Supplemental Air Carriers . . . . .					
Domestic . . . . .	101	0	0	-100.0	0.0
International . . . . .	5	0	6	1.8	-
Domestic . . . . .					
Domestic . . . . .	5	0	0	-100.0	0.0
International . . . . .	0	0	6	-	-

n/a = not available

r = revised

<sup>1</sup> Excludes ton-miles of express mail, and excess baggage.

<sup>2</sup> Includes crew in passenger, cargo and nonrevenue flights.

Sources: Civil Aeronautics Board, *Handbook of Airline Statistics*, 1971; a-210, b-221, f-106, g-117, h-105, i-6  
 Civil Aeronautics Board, *Handbook of Airline Statistics*, 1973; d-9, e-63, k-216, l-228, n-106, p-117, t-62  
 Civil Aeronautics Board, *Personal Communication*; c  
 Civil Aeronautics Board, *Air Carrier Financial Statistics*, Dec. 1973; k-2, l-7, m-48, s-7  
 Civil Aeronautics Board, *Air Carrier Traffic Statistics*, Dec. 1973; n-2, o-51, p-7, v-1  
 National Transportation Safety Board, *Bureau of Aviation Safety, Personal Communication*; q  
 Civil Aeronautics Board, *Air Carrier Traffic Statistics*, Dec. 1974; x-4, y-93, z-13

## GENERAL AVIATION PROFILE

	<u>1963</u>	<u>1972</u>	<u>1973</u>	1963-1973 Average Annual <u>% Change</u>	1972-1973 <u>% Change</u>
<b>I. FINANCIAL</b>					
Expenditures (\$ millions)					
Total	1,062 <i>a</i>	3,551 <i>a</i>	4,237 <i>a</i>	14.8	19.3
Aircraft	158 <i>r</i>	559 <i>r</i>	797	17.6	42.6
Operating costs	904	2,992	3,440 <i>p</i>	14.3	15.0
<b>II. INVENTORY</b>					
Number of Active Aircraft					
Total, all aircraft	85,088 <i>b</i>	145,010 <i>c</i>	153,540 <i>c</i>	6.1	5.9
<b>III. PERFORMANCE</b>					
Number of Miles Flown (millions)					
Business	983.3 <i>d</i>	1,143.8 <i>r d</i>	1,343.7 <i>d</i>	3.2	17.5
Commercial	368.7	580.9	688.4	6.4	18.5
Instructional	266.3	691.5	778.9	11.3	12.6
Personal	409.7	833.9	825.1	7.3	-1.1
Other	20.5	67.0	93.4	16.4	39.4
Total	2,048.5	3,317.1	3,728.5	6.2	12.4
Number of Hours Flown (millions)					
Business	5.7 <i>e</i>	7.2 <i>r e</i>	8.6 <i>e</i>	4.2	19.4
Commercial	3.2	4.8	5.6	5.8	16.7
Instructional	2.4	6.8	7.6	12.2	11.8
Personal	3.6	7.6	7.5	7.6	-1.3
Other	.2	.5	.7	13.3	40.0
Total	15.1	26.9	30.0	7.1	11.5
Number of Fatalities					
Instructional	63 <i>f</i>	86 <i>f</i>	74 <i>f</i>	1.6	-14.0
Personal	497	827	823	5.2	-0.5
Business	172	178	189	0.9	6.2
Executive	15	46	47	12.1	2.2
Aerial Application	32	46	43	3.0	-6.5
Air Taxi	35	121	81	8.8	-33.2
Other	79	117	97	2.1	-17.1
Total	893	1,421 <i>r</i>	1,354	4.3	-4.7
Number of Accidents (Fatal, Injury, and No Injury)					
Instructional	484	665	585	1.9	-12.0
Personal	2,109	2,208	2,192	0.4	-0.7
Business	827	411	306	-9.5	-25.5
Executive	69	84	95	3.2	13.1
Aerial Application	380	376	386	0.2	2.7
Air Taxi	132	147	163	2.1	10.9
Other	689	365	524	-2.7	43.6
Total	4,690	4,256 <i>r</i>	4,251	-1.0	-0.1

*r* = revised

*p* = preliminary

Sources: National Transportation Safety Board, *Bureau of Aviation Safety, Personal Communication*; *f*

Federal Aviation Administration, *Statistical Handbook of Aviation*, 1970, 1972, 1973.

*b*-Table 8.2, *c*-Table 8.6, *d*-Table 8.5, *e*-Table 9.9

Transportation Association of America, *Transportation Facts & Trends*, April 1975, Quarterly Supplement to the 11th edition, Dec. 1974 a 5

## HIGHWAY PROFILE

	<u>1963</u>	<u>1972</u>	<u>1973</u>	1963-1973 Average Annual % Change	1972-1973 % Change
<b>I. FINANCIAL</b>					
Government Expenditures (\$ millions)					
Federal .....	245 <sup>c</sup>	531 <sup>r</sup> <sub>a</sub>	516 <sup>a</sup>	7.7	-2.8
State and local .....	12,075	21,411	22,035	6.2	2.9
Total .....	12,320	21,942	22,551	6.2	2.8
<b>II. INVENTORY</b>					
Rural Mileage					
Under State control					
State primary system .....	409,340 <sup>b</sup>	408,219 <sup>b</sup>	409,834 <sup>b</sup>	0.0	0.4
State secondary roads .....	246,747	276,269	272,707	1.0	-1.3
Other State roads .....	21,488	27,605	27,920	2.7	1.1
Total .....	677,575	712,093	710,461	0.5	-0.2
Under local control					
County roads .....	1,736,681	1,736,385	1,727,834	-0.1	-0.5
Town and township roads .....	535,244	483,174	489,164	-0.9	1.2
Other local roads .....	74,583	32,464	32,448	-8.0	0.0
Total .....	2,346,508	2,252,023	2,249,446	-0.4	-0.1
Under Federal control .....	121,422	209,171	215,747	5.9	3.1
Municipal Mileage					
Under State control					
Extensions of State primary system .....	46,757	62,630	64,343	3.2	2.7
Extensions of State secondary roads .....	12,431	17,336	17,349	3.4	0.1
Total .....	59,188	79,966	81,692	3.3	2.2
Under local control					
Local city street .....	415,764	533,460	549,537	2.8	3.0
Total municipal mileage .....	474,952	613,426	631,229	2.9	2.9
Total Rural and Municipal Mileage .....	3,620,457	3,786,713	3,806,883	0.5	0.5

Sources: Federal Highway Administration, *Highway Statistics*, 1972, 1973.  
<sup>a</sup>-Table HF-10  
 Federal Highway Administration, *Highway Statistics*, 1963, 1972, 1973.  
<sup>b</sup>-Table M-1  
 Federal Highway Administration, *Bureau of Public Roads*, press release  
 BPR-66-2, January 12, 1966; <sup>c</sup>-Table HF-2

## AUTOMOBILE PROFILE

	<u>1963</u>	<u>1972</u>	<u>1973</u>	1963-1973 Average Annual % Change	1972-1973 % Change
<b>I. FINANCIAL</b>					
Expenditures (\$ millions)					
New and used cars .....	21,549 <i>c</i>	45,986 <i>a</i>	50,039 <i>a</i>	8.8	8.8
Tires, tubes, accessories .....	2,707	7,148	7,491	10.7	4.8
Gasoline and oil .....	13,457	24,993	28,307	7.7	13.3
Tolls .....	344	619	652	6.6	5.3
Insurance .....	2,047	4,767	4,747	8.8	-0.4
Interest on debt .....	2,813 <i>m</i>	5,555 <i>m</i>	6,479 <i>m</i>	8.7	16.6
Auto registration fees .....	983 <i>n</i>	1,817 <i>n</i>	1,958 <i>n</i>	7.1	7.8
Operator's permit fees .....	143	248	249	5.7	0.4
Retail, greasing, washing, parking, storage, rental .....	5,591 <i>c</i>	10,255 <i>a</i>	11,385 <i>a</i>	7.4	11.0
Total .....	49,634	101,388	111,307	8.4	9.8
Revenues (\$ millions)					
Taxi .....	8,385	1,529 <i>r</i> <i>s</i>	1,520 <i>s</i>	6.1	-0.6
<b>II. INVENTORY</b>					
Number of Vehicle Registrations					
Passenger cars and taxis .....	68,730,367 <i>b</i>	96,330,603 <i>b</i>	101,188,735 <i>b</i>	3.9	5.0
Motorcycles .....	771,572	3,774,996	4,332,580	18.8	14.8
Number of Employees					
Taxis .....	111,900 <i>dd</i>	99,400 <i>r</i> <i>d</i>	97,200 <i>d</i>	-1.4	-2.2
<b>III. PERFORMANCE</b>					
Vehicle-Miles (millions) <sup>1</sup>					
Urban streets .....	329,690 <i>f</i>	567,541 <i>f</i>	592,191 <i>f</i>	6.0	4.3
Main rural roads .....	234,641	330,605	341,633	3.8	3.3
Local rural roads .....	90,368	105,352	102,631	1.3	-2.6
Total travel .....	654,699	1,003,498	1,036,455	4.7	3.3
Vehicle-Miles (millions)					
Motorcycles .....	n/a	17,091	19,594	n/a	14.6
Passenger car and taxis .....	n/a	986,407	1,016,861	n/a	3.1
Total .....	654,699	1,003,498	1,036,455	4.7	3.3
Passenger-Miles (millions)					
Total travel, passenger cars & taxis <sup>2</sup> .....	n/a	2,170,095	2,237,094	n/a	3.1
Total travel, motorcycles <sup>3</sup> .....	n/a	18,000	21,553	n/a	19.7
Average Speed (mph), Main Rural Roads <sup>4</sup>					
Passenger cars .....	57 <i>l</i>	62 <i>g</i>	62 <i>g</i>	0.8	0.0
Number of Vehicles in All Accidents					
Motorcycles .....	130,000 <i>h</i>	320,000 <i>h</i>	360,000 <i>h</i>	10.7	12.5
Passenger cars .....	17,200,000	24,500,000	23,300,000	3.1	-4.9
Taxis .....	150,000	180,000	170,000	1.3	-5.6

## AUTOMOBILE PROFILE (cont.)

	<u>1963</u>	<u>1972</u>	<u>1973</u>	1963-1973 Average Annual % Change	1972-1973 % Change
<b>Number of Vehicles in Fatal Accidents</b>					
Motorcycles .....	750 <i>h</i>	2,600 <i>h</i>	2,900 <i>h</i>	14.5	11.5
Passenger cars .....	43,000	53,400	49,000	1.3	-8.2
Taxis .....	130	200	260	7.2	30.0
<b>Number of Fatalities</b>					
Passenger cars & taxis .....	28,900 <i>k</i>	35,200 <i>k</i>	33,700 <i>k</i>	1.5	-4.3
Passenger cars .....	n/a	35,100 <i>h</i>	33,500 <i>h</i>	n/a	-4.6
Taxis .....	n/a	120	170	n/a	41.7
Motorcycles <sup>5</sup> .....	882	2,700	3,130	13.5	15.9
Bicycles .....	580 <i>i</i>	1,116 <i>j</i>	1,076 <i>j</i>	6.4	-3.6

n/a - not available

r = revised

<sup>1</sup> Includes passenger cars, taxis and motorcycles.

<sup>2</sup> Based on vehicle-mile data from the Federal Highway Administration, Dept. of Transportation, and an average occupancy of 2.2.

<sup>3</sup> Based on vehicle-mile data from the Federal Highway Administration, Dept. of Transportation, and an average occupancy of 1.1.

<sup>4</sup> Speed of free-flowing traffic along level sections of highway.

<sup>5</sup> Includes passengers on motor scooters, motorized bicycles, and motorized tricycles.

Sources: National Safety Council, *Accident Facts*, 1964, 1973, 1974.  
*h-56, i-58, k-75*  
 Federal Highway Administration, *Highway Statistics*, 1963, 1972, 1973.  
*b-Table MV-1, f-Table MV-1, g-Table VS-1, l-pg 35 n-Table MV-2*  
 Transportation Association of America, *Transportation Facts and Trends*, April 1975, Quarterly Supplement, Dec. 1974.  
*s-5*  
 Department of Labor, *Personal Communication d*  
 Department of Labor, *Employment and Earnings, US - 1909 - 1972*;  
*dd-528*  
 National Highway Traffic Safety Administration, *Highway Fatality Statistics*, Dec. 1973.  
*j-2*  
 Department of Commerce, OBE, *National Income and Product Accounts of the U.S.*  
*c-Table 2.6*  
 Department of Commerce, *Survey of Current Business*, Vol. 54, No. 7, July 1974.  
*a-24, Table 2.5*  
 Department of Transportation,  
*m-TSC Calculation*



## BUS PROFILE

	<u>1963</u>	<u>1972</u>	<u>1973</u>	1963-1973 Average Annual % Change	1972-1973 % Change
<b>I. FINANCIAL</b>					
Expenditures (\$ millions)					
School bus .....	616 <i>a</i>	1,510 <sup>r</sup> <i>a</i>	1,626 <i>a</i>	10.2	7.7
Operating Revenues (\$ millions)					
Intercity bus, total .....	646.8 <i>c</i>	974.4 <i>c</i>	1,020.7 <i>c</i>	4.7	4.8
Intercity bus, Class I .....	548.8 <i>d</i>	775.3 <i>d</i>	812.6 <i>d</i>	4.0	4.8
Operating Expenses (\$ millions)					
Intercity bus, total .....	561.7 <i>c</i>	882.1 <i>c</i>	935.1 <i>c</i>	5.2	6.0
Intercity bus, Class I .....	469.3 <i>d</i>	689.6 <i>d</i>	735.2 <sup>p</sup> <i>d</i>	4.6	6.6
Taxes Assignable to Operations (\$ millions) <sup>1</sup>					
Intercity bus, total .....	59.1 <i>c</i>	84.1 <i>c</i>	90.1 <i>c</i>	4.3	7.1
Intercity bus, Class I .....	40.7 <i>d</i>	54.0 <i>d</i>	58.6 <sup>p</sup> <i>d</i>	3.7	8.5
<b>II. INVENTORY</b>					
Number of Operating Companies					
Intercity bus .....	1,100 <i>c</i>	1,000 <i>c</i>	1,000 <i>c</i>	-0.9	0.0
Number of Vehicles					
Intercity bus .....	21,100	22,500	22,300	0.6	-0.9
School bus .....	192,389 <i>i</i>	310,000 <i>i</i>	310,000 <i>i</i>	4.9	0.0
Number of Employees of Operating Companies					
Intercity bus .....	46,200 <i>c</i>	49,100 <i>c</i>	48,000 <i>c</i>	0.4	-2.2
Miles of Highway Served					
Intercity .....	260,000	270,000	271,000	0.4	0.4
<b>III. PERFORMANCE</b>					
Vehicle-Miles (millions)					
Commercial bus <sup>2</sup>					
Urban streets .....	1,794 <i>e</i>	1,647 <i>e</i>	1,545 <i>e</i>	-1.5	-6.2
Main rural roads .....	877	913	890	0.1	-2.5
Local roads .....	170	190	113	-4.0	-40.5
Total travel .....	2,841	2,750	2,548	-1.1	-7.3
School and nonrevenue bus					
Urban streets .....	292	475	497	5.5	4.6
Main rural roads .....	642	880	920	3.7	4.5
Local rural roads .....	708	1,004	995	3.5	-0.9
Total travel .....	1,642	2,359	2,412	3.9	2.2
All buses					
Urban streets .....	2,086	2,122	2,042	-0.2	-3.8
Main rural roads .....	1,519	1,793	1,810	1.8	0.9
Local rural roads .....	878	1,194	1,108	2.4	-7.2
Total travel .....	4,483	5,109	4,960	1.0	-2.9

## BUS PROFILE (cont.)

	<u>1963</u>	<u>1972</u>	<u>1973</u>	1963-1973 Average Annual % Change	1972-1973 % Change
<b>Revenue Passenger-Miles (millions)</b>					
Intercity bus, total . . . . .	22,500 <i>c</i>	25,600 <i>c</i>	26,400 <i>c</i>	1.6	3.1
Intercity bus, Class I <sup>3</sup> . . . . .	15,086 <i>f</i>	13,576 <i>f</i>	13,910 <i>f</i>	-0.8	2.5
<b>Number of Revenue Passengers (millions)</b>					
Intercity bus, total . . . . .	354 <i>c</i>	393 <i>c</i>	385 <i>c</i>	0.8	-2.0
Intercity bus, Class I . . . . .	262 <i>f</i>	164 <i>f</i>	158 <i>f</i>	-4.9	-3.7
<b>Average Speed (mph)<sup>4</sup></b>					
Commercial bus, main rural roads . . . . .	58.0 <i>l</i>	60.3 <i>k</i>	60.4 <i>k</i>	0.4	0.2
<b>Number of Fatalities</b>					
All buses . . . . .	130 <i>g</i>	130 <i>g</i>	170 <i>g</i>	2.7	30.8
Intercity buses, Class I <sup>5</sup> . . . . .	n/a	31	29	n/a	-6.5
School bus . . . . .	78 <i>h</i>	180 <i>h</i>	210 <i>h</i>	10.4	16.7

P = preliminary  
r = revised

<sup>1</sup> Excludes income taxes.

<sup>2</sup> Includes local transit buses. See "Local Transit Profile" for more detailed information on urban bus transportation.

<sup>3</sup> Regular-route intercity service. Excludes local, suburban, charter, and special service.

<sup>4</sup> Speed of free-flowing traffic along level sections of highway.

<sup>5</sup> Class I only, representing about four-fifths of total intercity bus passenger mileage.

Sources: National Association of Motorbus Owners, *Get Onto Something Great*, 1973, c-16, d-17, f-18  
Federal Highway Administration, *Highway Statistics*, 1963, 1972, 1973, e-Table VM-1, k-Table VS-1, l-pg 35.  
Transportation Association of America, *Transportation Facts and Trends*, April 1975, Quarterly Supplement, Dec. 1974, a-5  
National Safety Council, *Accident Facts*, 1964, 1973, 1974, g-75, h-92, i-93

## TRUCK PROFILE

	<u>1963</u>	<u>1972</u>	<u>1973</u>	1963-1973 Average Annual % Change	1972-1973 % Change
<b>I. FINANCIAL</b>					
Revenues (\$ millions)					
Local .....	18,398 <i>a</i>	48,000 <sup><i>P</i></sup> <sub><i>a</i></sub>	52,500 <sup><i>P</i></sup> <sub><i>a</i></sub>	11.1	9.4
Intercity					
ICC-regulated .....	8,548	18,700	21,000	9.4	12.3
Non-ICC-regulated .....	13,040	22,990 <sup><i>r</i></sup>	25,515	6.9	11.0
Operating Revenues of Class I Intercity Motor Carriers (\$ millions)					
Freight, intercity, common .....	5,388.4 <i>b</i>	13,564.0 <sup><i>r</i></sup> <sub><i>c</i></sub>	14,977.2 <sup><i>P</i></sup> <sub><i>c</i></sub>	10.8	10.4
Freight, intercity, contract .....	212.4	531.8 <sup><i>r</i></sup>	491.9 <sup><i>P</i></sup>	8.8	-7.5
Freight, local .....	67.7	625.7 <sup><i>r</i></sup>	704.3 <sup><i>P</i></sup>	26.4	12.6
Trans. for other Classes I and II carriers .....	42.7	135.2 <sup><i>r</i></sup>	145.0 <sup><i>P</i></sup>	13.0	7.2
Other .....	45.1	137.5 <sup><i>r</i></sup>	159.5 <sup><i>P</i></sup>	13.5	16.0
Total .....	5,756.4	14,994.2 <sup><i>r</i></sup>	16,477.9 <sup><i>P</i></sup>	11.1	9.9
Operating Expenses of Class I Intercity Motor Carriers (\$ millions) .....	5,520.2	14,156.0 <sup><i>r</i></sup>	15,612.3 <sup><i>P</i></sup>	11.0	10.3
<b>II. INVENTORY</b>					
Number of Truck Registrations					
Private and commercial .....	12,730,608 <i>d</i>	20,225,745 <i>d</i>	22,175,645 <i>d</i>	5.7	9.7
Federal .....	98,490	165,113 <i>e</i>	171,006 <i>e</i>	5.7	3.6
State, county, municipal .....	594,229	848,305	886,221	4.1	4.5
Total .....	13,424,329	21,239,163	23,232,872	5.6	9.4
Total Number of Employees Trucking and Trucking Terminals .....	794,000 <i>s</i>	1,029,000 <sup><i>r</i></sup> <sub><i>h</i></sub>	1,096,200 <i>h</i>	3.3	6.5
Number of Companies, Class I Intercity Carriers of Property .....	1,004 <i>b</i>	1,525 <sup><i>r</i></sup> <sub><i>c</i></sub>	1,576 <sup><i>P</i></sup> <sub><i>c</i></sub>	4.6	3.3
Number of Employees, Class I Intercity Carriers of Property .....	351,104 <i>m</i>	542,153 <sup><i>r</i></sup>	581,369 <sup><i>P</i></sup>	5.2	7.2
<b>III. PERFORMANCE</b>					
Vehicle-Miles (millions)					
Urban streets .....	52,809 <i>g</i>	108,452 <i>g</i>	113,154 <i>g</i>	7.9	4.3
Main rural roads .....	64,794	116,632	119,536	6.3	2.5
Local rural roads .....	24,270	34,651	34,457	3.6	-0.6
Total travel .....	141,873	259,735	267,147	6.5	2.9
Ton-Miles (millions) Intercity .....	331,800 <i>n</i>	470,000 <i>i</i>	505,000 <sup><i>P</i></sup> <sub><i>i</i></sub>	4.3	7.4
Average Speed, Main Rural Highways (mph) <sup>1</sup> All trucks .....	52 <i>t</i>	56 <i>j</i>	57 <i>j</i>	0.9	1.8

## TRUCK PROFILE (cont.)

	<u>1963</u>	<u>1972</u>	<u>1973</u>	<u>1963-1973</u>	
				<u>Average Annual % Change</u>	<u>1972-1973 % Change</u>
Average Length of Haul (miles)					
Class I intercity motor carriers					
Common .....	267 <i>k</i>	280 <i>k</i>	276 <i>l</i>	0.3	-1.4
Contract .....	142	187	198	3.4	5.9
Number of Fatalities					
All Trucks .....	n/a	5,500 <i>w</i>	5,700 <i>w</i>	n/a	3.6

*p* = preliminary

*r* = revised

n/a - not available

<sup>1</sup> Speed of free-flowing traffic along level sections of highway.

Sources: Federal Highway Administration, *Highway Statistics*, 1963, 1972, 1973.  
*d*-MV-1, *e*-MV-7, *g*-VM-1, *j*-Table VS-1, *t*-35  
 Interstate Commerce Commission, *88th Annual Report to Congress*, 1974;  
*c*-125, *i*-120  
 Interstate Commerce Commission, *84th Annual Report to Congress*, 1970;  
*b*-141, *m*-142  
 Interstate Commerce Commission, *79th Annual Report to Congress*, 1965;  
*n*-69  
 Transportation Association of America, *Transportation Facts and Trends*, April 1975, Quarterly Supplement, Dec. 1974.  
*a*-4,  
 Interstate Commerce Commission, *Transport Economics*, Feb. - March, 1973.  
*k*-11  
 Transportation Association of America, *Personal Communication g*  
 Department of Labor, *h* - *Personal Communication*, *s*-March 1963 value, page 684 Bulletin 1312-9  
 Interstate Commerce Commission, *Personal Communication l*  
 National Safety Council, *Accident Facts*, 1972, 1973, *w*-56

## LOCAL TRANSIT PROFILE

	1963	1972	1973	1963-1973	
				Average Annual % Change	1972-1973 % Change
<b>I. FINANCIAL</b>					
<b>Passenger Revenue (\$ millions)</b>					
Motorbus . . . . .	932.2 <i>a</i>	1,177.8 <sup>r</sup> <i>a</i>	1,183.8 <i>a</i>	2.4	0.5
Subway and elevated - heavy rail . . . . .	274.6	401.9 <sup>r</sup>	437.6	4.8	8.9
Surface rail - light rail . . . . .	54.8	39.6	38.7	-3.4	-2.3
Trolley coach . . . . .	54.7	31.4	23.6	-8.1	-24.8
Total . . . . .	1,316.3	1,650.7	1,683.7	2.5	2.0
<b>Operating Revenue (\$ millions)</b>					
Motorbus . . . . .	985.8 <i>b</i>	1,230.1 <sup>r</sup> <i>b</i>	1,262.9 <i>b</i>	2.5	2.7
Subway and elevated - heavy rail . . . . .	287.4	417.2	461.0	4.8	10.5
Surface rail - light rail . . . . .	61.2	48.4	48.5	-2.3	0.2
Trolley coach . . . . .	56.2	32.8	25.2	-7.7	-23.2
Total . . . . .	1,390.6	1,728.5	1,797.6	2.6	4.0
<b>II. INVENTORY</b>					
<b>Number of Companies</b>					
Electric railways <sup>1</sup> . . . . .	17 <i>g</i>	15 <i>g</i>	15 <i>g</i>	-1.2	0.0
Motorbus . . . . .	1,177	1,628	1,006	-1.6	-38.2
Trolley coach and motorbus . . . . .	11	2	2	-15.7	0.0
<b>Number of Vehicles</b>					
Motorbus . . . . .	49,400 <i>c</i>	49,075 <i>c</i>	48,286 <i>c</i>	-0.2	-1.6
Subway and elevated - heavy rail . . . . .	8,878	9,423	9,387	0.6	-0.4
Surface rail - light rail . . . . .	1,756	1,176	1,123	-4.4	-4.5
Trolley coach . . . . .	2,155	1,030	794	-9.5	-22.9
Total . . . . .	62,189	60,704	59,590	-0.4	-1.8
<b>Number of Employees</b>					
Motorbus, surface rail, trolley coach, subway and elevated . . . . .	147,200 <i>d</i>	138,420 <i>d</i>	140,700 <i>d</i>	-0.5	1.6
<b>III. PERFORMANCE</b>					
<b>Revenue Vehicle-Miles (millions)</b>					
Motorbus . . . . .	1,523.1 <i>e</i>	1,308.0 <sup>e</sup>	1,370.4 <i>e</i>	-1.1	4.8
Subway and elevated - heavy rail . . . . .	387.3	386.2	407.3	0.5	5.5
Surface rail - light rail . . . . .	48.9	31.6	31.2	-4.4	-1.3
Trolley coach . . . . .	62.4	29.8	25.7	-8.5	-13.8
Total . . . . .	2,021.7	1,755.6	1,834.6	-1.0	4.5
<b>Revenue Passengers Carried (millions)</b>					
Motorbus . . . . .	4,752.0 <i>f</i>	3,560.8 <sup>r</sup> <i>f</i>	3,652.8 <i>f</i>	-2.6	2.6
Subway and elevated - heavy rail . . . . .	1,661.0	1,445.7 <sup>r</sup>	1,423.7	-1.5	-1.5
Surface rail - light rail . . . . .	238.0	147.3 <sup>r</sup>	143.5	-4.9	-2.6
Trolley coach . . . . .	264.0	99.5 <sup>r</sup>	73.6	-12.0	-26.0
Total . . . . .	6,915.0	5,253.3 <sup>r</sup>	5,293.9	-2.6	0.8

<sup>1</sup>Includes surface rail and subway and elevated.

<sup>r</sup> = revised

Sources: American Transit Association, *Transit Fact Book*, 1974 - 1975.  
*a*-Table 9, *b*-Table 8, *c*-Table 12, *d*-Table 11, *e*-Table 13, *f*-Table 7, *g*-pg 3

## WATER TRANSPORT PROFILE

I. FINANCIAL	<u>1963</u>	<u>1972</u>	<u>1973</u>	1963-1973 Average Annual % Change	1972-1973 % Change
Revenues (\$ millions)					
Domestic freight .....	1,554 <i>a</i>	2,094 <i>a</i>	2,204 <i>a</i>	3.6	5.3
Coastal waterways .....	716	844	828	1.5	-1.9
Inland waterways .....	333	582	650	6.9	11.7
Great Lakes .....	190	243	286	4.2	17.7
Locks, channels, etc. ....	315	425	440 <i>P</i>	3.4	3.5
International freight .....	1,674	3,524	4,035	9.2	14.5
Domestic passengers, intercity .....	12	14	19	4.7	35.7
International passenger <sup>1</sup> .....	310	268	284	-0.9	6.0
Revenue of Class A & B Carriers by Inland and Coastal Waterways (\$ millions)					
Line service operating revenues					
Freight .....	185.6 <i>b</i>	330.5 <i>r</i> <i>c</i>	345.6 <i>P</i> <i>c</i>	6.4	4.6
Passenger .....	7.7	11.0 <i>r</i>	18.1 <i>P</i>	8.9	64.5
Other .....	17.8	7.7 <i>r</i>	16.2 <i>P</i>	-0.9	110.4
Other operating revenue .....	3.0	5.4 <i>r</i>	2.8 <i>P</i>	-0.7	-48.1
Revenue from terminal operations .....	21.5	30.7 <i>r</i>	35.4 <i>P</i>	5.1	15.3
Rent and motor carrier revenue .....	22.1	31.1 <i>r</i>	27.0 <i>P</i>	2.0	-13.2
Total waterline operating revenues .....	257.8	416.5 <i>r</i>	445.3 <i>P</i>	5.6	6.9
Revenues of U.S. Commercial Fishing Fleet					
U.S. Commercial Landings (\$ millions)	377 <i>aa</i>	704 <i>aa</i>	907 <i>aa</i>	9.2	28.8
Revenues of Maritime Carriers (\$ millions)					
Coastwise and intercoastal service .....	102 <i>e</i>	108 <i>d</i>	152 <i>P</i> <i>d</i>	4.1	40.7
Charter .....	20	56	57 <i>P</i>	11.0	1.8
Total vessel operating revenues .....	548	811	1,008 <i>P</i>	6.3	24.3
Total waterline operating revenues .....	653	885	1,087 <i>P</i>	5.2	22.8
Operating Expenses of Classes A and B Carriers by Inland and Intracoastal Waterways (\$ millions) ...					
	225.8 <i>f</i>	370.3 <i>r</i> <i>c</i>	395.3 <i>P</i> <i>c</i>	5.8	6.8
Operating Expenses of Maritime Carriers (\$ millions) .					
	627.4 <i>e</i>	847.0 <i>r</i> <i>d</i>	1,084.0 <i>P</i> <i>d</i>	5.6	28.0
Government Expenditures (\$ millions)					
Federal expenditures					
Coast Guard .....	297 <i>h</i>	688 <i>h</i>	783 <i>h</i>	10.2	13.8
Merchant Marine .....	365 <i>i</i>	422 <i>i</i>	457 <i>i</i>	2.3	8.3
Total waterways .....	315 <i>j</i>	436 <i>j</i>	482 <i>j</i>	4.3	10.6
Inland and intracoastal waterways <sup>2</sup> .....	168 <i>k</i>	233 <i>k</i>	258 <i>h</i>	4.4	10.7
State and local expenditures					
Coast Guard .....	0 <i>h</i>	0 <i>h</i>	0 <i>h</i>	0.0	0.0
Merchant Marine .....	0 <i>i</i>	0 <i>i</i>	0 <i>i</i>	0.0	0.0
Total waterways .....	313 <i>j</i>	527 <i>j</i>	540 <i>j</i>	5.6	2.5

## WATER TRANSPORT PROFILE (cont.)

II. INVENTORY	1963	1972	1973	1963-1973 Average Annual % Change	1972-1973 % Change
Number of Companies, Class A and B Carriers by Inland and Coastal Waterways .....	93 <i>b</i>	79 <i>r<sub>c</sub></i>	77 <i>P<sub>c</sub></i>	-1.9	-2.5
Number of Companies, Maritime Carriers .....	21 <i>e</i>	17 <i>r<sub>d</sub></i>	17 <i>P<sub>d</sub></i>	-2.1	0.0
Number of Employees					
Ships, boat building, and repairs .....	142,400 <i>o</i>	185,300 <i>r<sub>o</sub></i>	197,000 <i>o</i>	3.3	6.3
Transportation services .....	224,100	208,600	203,600	-1.0	-2.4
Number of Employees					
Maritime carriers .....	15,853 <i>g</i>	10,058 <i>d</i>	8,835 <i>P<sub>d</sub></i>	-5.1	-12.2
Class A and B carriers by inland and coastal waterways .....	11,265 <i>f</i>	29,576 <i>r<sub>c</sub></i>	8,349 <i>P<sub>c</sub></i>	-3.0	-71.8
Mileage of Commercially Navigable Inland and Coastal Channels .....	25,260 <i>s</i>	25,543 <i>s</i>	25,543 <i>s</i>	0.1	0.0
Number of Vessels					
Total non-self-propelled .....	16,493 <i>t</i>	20,947 <i>t</i>	22,117 <i>t</i>	3.0	5.6
Dry cargo barges and scows .....	13,927	17,527	18,804	3.0	7.3
Tank barges .....	2,566	3,420	3,313	2.6	-3.1
Self-propelled towboats and tugs .....	3,959	4,278	4,064	0.3	-5.0
U.S. Commercial Fishing Fleet	11,928 <i>nn</i>	n/a	n/a	n/a	n/a
U.S. Passenger Liners <sup>4</sup>	19 <i>cc</i>	8 <i>cc</i>	5 <i>cc</i>	n/a	n/a
U.S. Merchant Marine (over 1,000 gross tons)					
Total U.S. Flag	2,785 <i>dd</i>	1,150 <i>dd</i>	1,016 <i>dd</i>	-9.6	-11.7
Privately Owned	974	651	596	-4.8	-8.4
Government Owned	1,811	499	420	-13.6	-15.8
<b>III. PERFORMANCE</b>					
Passenger-Miles, Intercity (millions) .....	2,800 <i>u</i>	4,000 <i>u</i>	4,000 <i>u</i>	3.6	0.0
Ton-Miles (millions)					
Domestic waterfreight					
Coastwise .....	316,096 <i>v</i>	351,509 <i>v</i>	327,649 <i>v</i>	0.4	-6.8
Internal .....	94,438	177,539	171,891	6.2	-3.2
Lakewise .....	68,285	73,132	83,765	2.1	14.5
Local .....	1,758	1,364	1,386	-2.3	1.6
Total .....	480,577	603,544	584,691	2.0	-3.1
Ton-Miles, Domestic Deep Sea (billions) .....	244 <i>w</i>	264 <i>w</i>	226 <i>w</i>	-0.8	-14.4
Tons of Freight Hauled (millions)					
Domestic water					
Coastwise .....	214 <i>v</i>	243 <i>v</i>	237 <i>v</i>	1.0	-2.5
Internal .....	332	507	503	4.2	-0.8
Lakewise .....	142	145	157	1.0	8.3
Local .....	99	90	93	-0.6	3.3
Total .....	786	985	990	2.3	0.5
Exports					
Great Lakes ports .....	28 <i>x</i>	35 <i>x</i>	38 <i>x</i>	3.1	8.6
Coastal ports .....	130	197	239	6.3	21.3
Total .....	158	232	277	5.8	19.4
Imports					
Great Lakes .....	18	25	28	4.5	12.0
Coastal ports .....	209	372	462	8.3	24.2
Total .....	227	397	490	8.0	23.4
Tons of Freight, Intraterritorial (millions) .....	1.6 <i>m</i>	1.9 <i>r<sub>m</sub></i>	4.3 <i>m</i>	10.4	126.3

## WATER TRANSPORT PROFILE (cont.)

	1963	1972	1973	1963-1973 Average Annual % Change	1972-1973 % Change
<b>Average Haul, Domestic System (miles-per-ton)</b>					
Coastwise .....	1,478.1 <i>v</i>	1,448.6 <i>v</i>	1,383.7 <i>v</i>	-0.7	-4.5
Internal .....	284.5	350.2	341.6	1.8	-2.5
Lakewise .....	481.8	504.3	534.8	1.0	6.0
Local .....	17.8	15.1	14.9	-1.8	-1.3
Total .....	611.0	612.8	590.7	-0.3	-3.6
<b>Cargo Capacity (net tons)</b>					
Total non-self-propelled vessels .....	16,763,155 <sup>y</sup>	27,197,323 <sup>y</sup>	28,751,428 <sup>y</sup>	5.5	5.7
Dry cargo barges and scows .....	12,710,880	19,710,605	21,342,522	5.3	8.3
Tank barges .....	4,052,275	7,486,718	7,408,906	6.2	-1.0
<b>Number of Fatalities in Water Transport<sup>3</sup></b>					
Passenger service .....	n/a <i>z</i>	2 <i>z</i>	5 <i>z</i>	n/a	150.0
Cargo .....	n/a	21	14	n/a	-33.3
Commercial Fishing .....	n/a	74	63	n/a	-14.9
Other .....	n/a	102	49	n/a	-52.0
Total .....	226	199	131	-5.3	-34.2
<b>Number of Fatalities in Recreational Boating</b>					
Inboard .....	138	147	113	-2.0	-23.1
Outboard .....	728	761	795	0.9	4.5
Inboard/Outboard <sup>5</sup> .....	—	41	32	-4.6	-22.0
Other .....	298	287	371	2.2	29.3
Propulsion Unknown .....	28	201	438	31.7	117.9
Total .....	1,243 <i>ee</i>	1,437 <i>ee</i>	1,754 <i>ee</i>	3.5	22.1

<sup>1</sup> Revenues paid by American travelers to U.S. and foreign flag carriers

<sup>2</sup> Does not include Great Lakes and coastal harbors.

<sup>3</sup> Fatalities on U.S. Flag carriers due to vessel casualties only — these fatality figures are on a fiscal year basis.

<sup>4</sup> Passenger capacity greater than 125.

<sup>5</sup> The 1963 figure is included under inboard fatalities.

*P* = preliminary

*r* = revised

*n/a* = not available.

Sources: American Waterways Operators, *Inland Waterborne Commerce Statistics*, 1972, 1973.

*s-1, t-2 & 3, y-2.*

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**RAIL PROFILE**  
**A. CLASS I RAILROADS**

	<u>1963</u>	<u>1972</u>	<u>1973</u>	<u>1963-1973</u> Average Annual % Change	<u>1972-1973</u> % Change
<b>I. FINANCIAL</b>					
Revenues, Class I Line-Haul Railroads (\$ millions)					
Passenger .....	588.1 <i>a</i>	257.1 <i>a</i>	258.6 <i>a</i>	-7.9*	0.6
Commutation .....	130.0	174.1	174.2	3.0	0.1
Other than commutation .....	353.4	82.0	83.4	-13.4*	1.7
Freight .....	8,146.1 <i>b</i>	12,570.3 <i>r</i> <i>b</i>	13,793.7 <i>b</i>	5.4	9.7
Mail .....	338.7 <i>c</i>	94.5 <i>c</i>	81.8 <i>c</i>	-13.2*	-13.4
Express .....	79.5	5.3	3.6	-26.6*	-32.1
Other .....	407.0	482.6	655.3	4.9	35.8
Total operating revenues .....	9,559.5	13,410.0	14,770.1	4.4	10.1
Operating Expenses, Class I Line-Haul Railroads (\$ millions) .....					
	7,451.6 <i>e</i>	10,556.4 <i>r</i> <i>e</i>	11,571.3 <i>e</i>	4.5	9.6
<b>II. INVENTORY</b>					
Number of Vehicles, Class I Railroads					
Freight-carrying cars .....	1,512,306 <i>f</i>	1,410,568 <i>f</i>	1,395,105 <i>f</i>	-0.8	-1.1
Passenger train cars .....	24,602 <i>g</i>	5,133 <i>g</i>	4,585 <i>p</i> <i>g</i>	-15.5*	-10.7
Locomotives .....	28,449 <i>h</i>	27,073 <i>h</i>	27,461 <i>h</i>	-0.4	1.4
Number of Companies, Class I Railroads .....	n/a	67 <i>i</i>	68 <i>i</i>	n/a	1.5
Number of Employees, Class I Railroads .....	680,039 <i>j</i>	526,061 <i>r</i> <i>j</i>	520,153 <i>j</i>	-2.6	-1.1
Line Mileage, All Line-Haul Railroads .....	214,387 <i>k</i>	203,299 <i>r</i> <i>k</i>	201,300 <i>p</i> <i>k</i>	-0.6	-1.0
<b>III. PERFORMANCE</b>					
Car Mileage, Class I Railroads (millions)					
Freight .....	28,153 <i>l</i>	30,309 <i>r</i> <i>l</i>	31,266 <i>l</i>	1.1	3.2
Passenger .....	1,962 <i>m</i>	206 <i>m</i>	196 <i>m</i>	-20.6*	-4.9
Total .....	30,115	30,515	31,462	0.4	3.1
Train Mileage, Class I Railroads (millions)					
Freight .....	399.9 <i>n</i>	451.0 <i>r</i> <i>n</i>	476.4 <i>r</i> <i>n</i>	1.8	5.6
Passenger .....	189.3 <i>o</i>	31.9 <i>o</i>	33.3 <i>o</i>	-16.0*	4.4
Total .....	589.2	482.9	509.7	-1.4	5.5
Locomotive Mileage, Class I Railroads (millions)					
Freight .....	414.1 <i>p</i>	1,366.1 <i>p</i>	1,371.9 <i>p</i>	12.7	0.4
Passenger .....	168.5	22.4	19.3	-19.5*	-13.8
Total .....	582.6	1,388.5	1,391.2	9.1	0.2
Revenue Passengers Carried, Class I Railroads (millions)					
Commutation .....	195 <i>q</i>	188 <i>q</i>	183 <i>q</i>	-0.6	-2.7
Other passenger .....	114	56	55	-7.0*	-1.8

## RAIL PROFILE (cont.)

### A. (cont.)

	1963	1972	1973	1963-1973	
				Average Annual % Change	1972-1973 % Change
<b>Revenue Passenger Miles, Class I Railroads (millions)</b>					
Commutation .....	4,101 <i>v</i>	4,120 <i>v</i>	4,064 <i>v</i>	-0.1	-1.4
Other passenger .....	14,396	1,249 <i>r</i>	1,238	-21.8 *	-0.9
<b>Average Passenger Trip Length, Class I Railroads (miles)</b>					
Commutation .....	21 <i>q</i>	22 <i>q</i>	22 <i>q</i>	0.5	0.0
Other passenger .....	126	22	23	-15.6	4.5
<b>Revenue Ton-Miles, Class I Railroads (millions)</b>					
Freight .....	621,737 <i>s</i>	776,746 <i>r</i> <sub>s</sub>	851,629 <i>s</i>	3.2	9.6
<b>Average Haul, Class I Railroads (miles)</b>					
Freight .....	263.6 <i>t</i>	305.0 <i>t</i>	315.0 <i>t</i>	1.8	3.3
<b>Number of Fatalities, All Railroads<sup>1</sup></b>					
Passengers on trains .....	13 <i>u</i>	47 <i>r</i> <sub>u</sub>	6 <i>w</i>	-7.4	-87.2
Employees on duty .....	165	127	157	-0.5	23.6
Employees not on duty .....	8	6	3	-9.3	-50.0
Other non-trespassers .....	1,384	1,228	1,134	-2.0	-7.7
Trespassers .....	571	537	577	0.1	7.4
Total .....	2,141	1,945	1,877	-1.3	-3.5

*r* = revised.

<sup>1</sup> Includes Amtrak operations and fatalities at rail-highway grade crossings.

\*NOTE: % decrease largely due to separation of Amtrak operations data, May 1971.

Sources: Association of American Railroads, *Yearbook of Railroad Facts*, 1973.  
*a-14, b-13, e-15, f-51, g-54, h-50, j-58, k-48, l-38, m-40, n-37, o-39, s-29, v-32*  
 Association of American Railroads, *Statistics of Railroads of Class I*, Years 1962 to 1972, Nov. 1973.  
*c-1, i-Table of Contents, p-11, q-7, t-5*  
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 plus Rail-Highway Grade Crossing Fatalities from the Federal Railroad Administration's Report *Rail-Highway Grade Crossing Accidents*, 1973.  
*w-4*  
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*u-Table 6*

## RAIL PROFILE

### B. AMTRAK

	<u>1963*</u>	<u>1972</u>	<u>1973</u>	1963-1973*	
				Average Annual % Change	1972-1973 % Change
<b>I. FINANCIAL</b>					
<b>Revenues</b>					
Passenger .....		132,804,419 <i>a</i>	167,314,347 <i>a</i>		26.0
Commutation .....		3,213,915	6,285,218		95.6
Other than commutation .....		129,590,504	161,029,129		24.3
Freight .....		0	0		0.0
Mail .....		1,674,673	5,047,000		201.4
Express .....		9,419	59,000		526.4
Other .....		22,981,364	29,673,000		29.1
Total operating revenues .....		157,469,875	202,093,347		28.3
Operating Expenses .....		286,338,724	327,091,000		14.2
<b>II. INVENTORY</b>					
<b>Number of Vehicles</b>					
Freight-carrying cars .....		0 <i>b</i>	0 <i>b</i>		0.0
Passenger train cars .....		1,382	1,717		24.2
Locomotives .....		151	237		57.0
Number of Companies .....		1 <i>c</i>	1 <i>c</i>		0.0
Number of Employees .....		807 <i>a</i>	3,501		333.8
Line Mileage .....		23,376 <i>d</i>	22,319 <i>d</i>		-4.5
<b>III. PERFORMANCE</b>					
<b>Car Mileage (millions)</b>					
Freight .....		0.0 <i>a</i>	0.0 <i>a</i>		0.0
Passenger .....		200.6	226.0		12.7
<b>Train Mileage (millions)</b>					
Freight .....		0.0	0.0		0.0
Passenger .....		26.3	27.2		3.4
<b>Locomotive Mileage (millions)</b>					
Freight .....		0.0	0.0		0.0
Passenger .....		57.7	54.2		-6.1
<b>Revenue Passengers Carried (millions)</b>					
Commutation .....		3.0	3.2		6.7
Other passenger .....		14.0	13.7		-2.1
<b>Revenue Passenger Miles (millions)</b>					
Commutation .....		108.0	181.6		68.1
Other passenger .....		2,930.0	3,806.5		29.9

**RAIL PROFILE (cont.)**

**B. (cont.)**

	<u>1963*</u>	<u>1972</u>	<u>1973</u>	<u>1963-1973*</u> Average Annual % Change	<u>1972-1973</u> % Change
<b>Average Passenger Trip Length (miles)</b>					
Commutation .....		40	56		40.0
Other passenger .....		210	264		25.7
<b>Revenue Ton-Miles (millions)</b>					
Freight .....		0	0		0.0
<b>Average Haul (miles)</b>					
Freight .....		0	0		0.0

\*AMTRAK came into operation in May 1971, thus no 1963 figures are available.

Sources: Association of American Railroads, *Statistics of Railroads of Class I*, Aug. 1974.  
a-16

Interstate Commerce Commission, *Class I Railroads, Financial and Operating Statistics, Statement #100*, Dec. 31, 1972, 1973.  
b-18, c-2, d-17

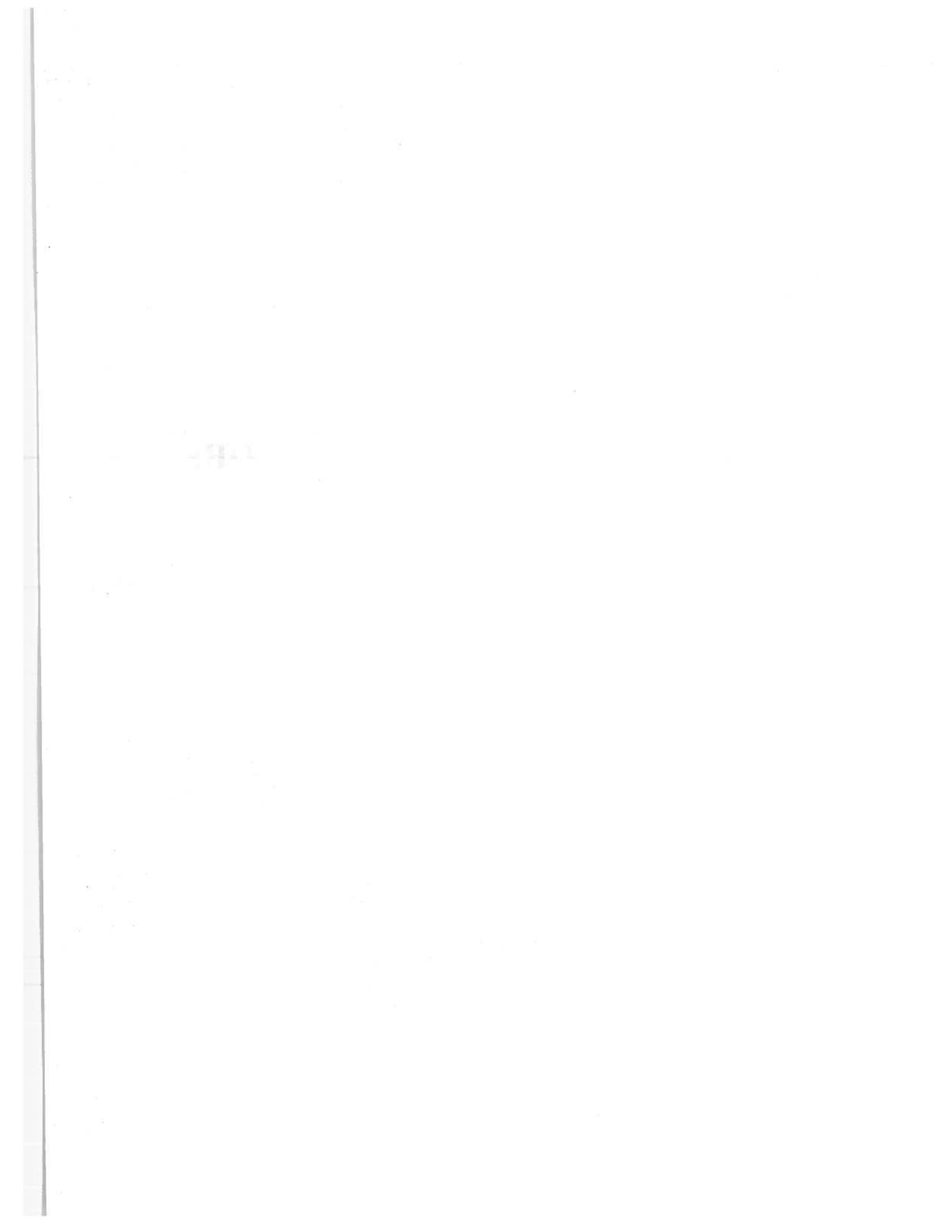
## OIL PIPELINE PROFILE

	<u>1963</u>	<u>1972</u>	<u>1973</u>	1963-1973 Average Annual % Change	1972-1973 % Change
<b>I. FINANCIAL</b>					
Operating Revenues (\$ millions)					
ICC-regulated .....	840 <i>a</i>	1,338 <i>a</i>	1,446 <i>a</i>	5.6	8.1
Non-regulated .....	140	245	255	6.2	4.1
Total .....	980	1,593	1,701	5.7	6.8
Operating Expenses (\$ millions)					
ICC-regulated .....	423.6 <i>b</i>	780.2 <i>c</i>	844 <sup><i>P</i></sup> <i>c</i>	7.1	8.2
Taxes, ICC-regulated Companies (\$ millions)					
Federal .....	123.9	127.3	141.6 <sup><i>P</i></sup>	1.3	11.2
Other .....	43.0	91.9	99.7	8.8	8.5
<b>II. INVENTORY</b>					
Number of ICC-regulated Companies .....	89	99	100 <sup><i>P</i></sup>	1.2	1.0
Number of Employees, ICC-regulated Companies .....	18,157	14,814	14,745	-2.1	-0.5
Mileage <sup>1</sup> .....	206,876	221,127 <sup><i>r</i></sup> <i>e</i>	222,355 <i>e</i>	0.7	0.6
<b>III. PERFORMANCE</b>					
Intercity Ton-Miles (millions)					
ICC-regulated .....	217,200 <i>f</i>	402,000 <sup><i>r</i></sup> <i>g</i>	n/a	n/a	n/a
Non-regulated .....	36,200	73,600 <sup><i>r</i></sup>	n/a	n/a	n/a
Total .....	253,400	475,800 <sup><i>r</i></sup>	507,000 <i>d</i>	7.2	6.6
Tons Transported (millions)					
Crude petroleum .....	352 <i>i</i>	488 <i>i</i>	492 <i>j</i>	3.4	0.8 *
Petroleum products .....	169 <i>k</i>	389 <i>k</i>	420	9.5	8.0
Total .....	521	877	912	5.8	4.0

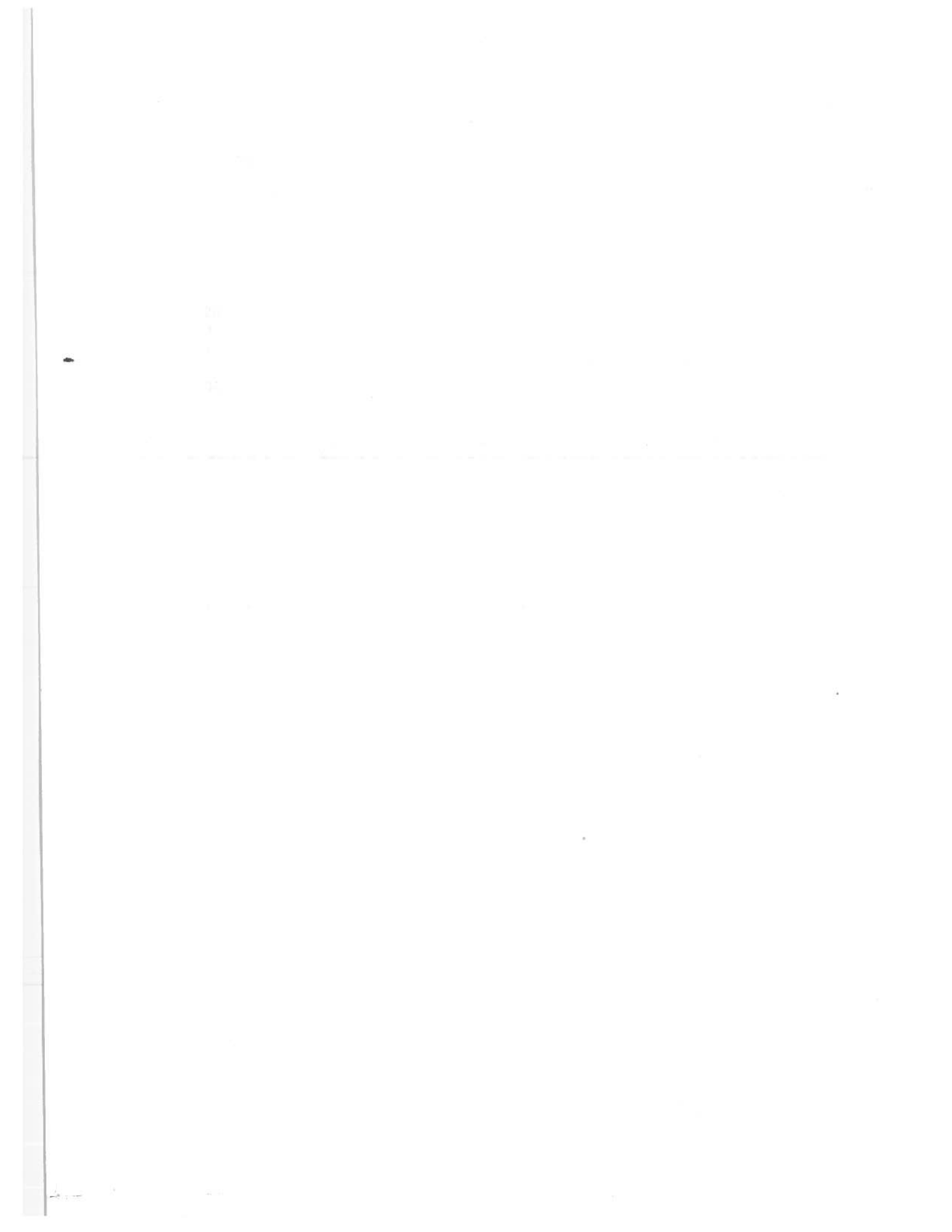
<sup>1</sup> Regulated plus unregulated mileage of crude oil trunk and gathering lines, plus refined oil trunk lines.

*P* = preliminary  
*r* = revised  
n/a = not available

Sources: Association of Oil Pipelines, *Shifts in Petroleum Transportation*, April 30, 1973.  
*i*-Table 2, *k*-Table 3  
Interstate Commerce Commission, *88th Annual Report to Congress*, 1974.  
*c*-130, *g*-121, *d*-120  
Interstate Commerce Commission, *84th Annual Report to Congress*, 1970.  
*b*-153,  
Interstate Commerce Commission, *79th Annual Report to Congress*, 1965; *f*-61  
Transportation Association of America, *Transportation Facts and Trends*, April 1975, Quarterly Supplement, Dec. 1974.  
*a*-4, *e*-31 and *Personal Communication*  
Association of Oil Pipelines, *Personal Communication j*



**SELECTED PASSENGER  
AND  
CARGO PERFORMANCE INDICATORS  
BY MODE OF  
TRANSPORTATION,  
1963, 1972, AND 1973**





**SELECTED PASSENGER AND CARGO PERFORMANCE INDICATORS  
BY MODE OF TRANSPORTATION, 1963, 1972, and 1973**

<b>AIR CARRIER</b>	<u>1963</u>	<u>1972</u>	<u>1973</u>
Revenue passenger-miles per capita			
Domestic operations			
Certificated, all services	207.0	585.0	621.7
Scheduled service	204.0	567.3	602.0
Non-scheduled service	3.0	17.7	19.7
International operations			
Certificated, all services	75.3	202.6	209.2
Scheduled service	63.2	164.6	169.8
Non-scheduled service	12.2	38.1	39.4
Revenue passenger-miles per aircraft (millions)			
Domestic and international operations, certificated route air carriers, all services	n/a	65.1	70.7
Available seat-miles per capita			
Domestic operations			
Certificated, all services	387.2	1,111.2	1,191.5
Scheduled service	383.3	1,088.3	1,166.1
Non-scheduled service	3.9	22.9	25.4
International operations			
Certificated, all services	133.0	327.3	353.4
Scheduled service	119.9	292.0	314.0
Non-scheduled service	13.1	35.3	39.4
Revenue ton-miles of freight <sup>1</sup> per capita			
Domestic operations			
Certificated, all services	4.5	12.6	13.7
Scheduled service	3.4	11.9	13.4
Non-scheduled service	1.1	0.7	0.3
International operations			
Certificated, all services	2.2	11.9	11.0
Scheduled service	2.0	8.3	9.1
Non-scheduled service	0.2	3.6	1.9

<sup>1</sup>Excludes ton-miles of mail, express, excess baggage, and passengers.

n/a — Not Available

Note: Per capita figures are based on 1963, 1972, and 1973 total resident populations of 188,483,000; 208,230,000 and 209,844,000 respectively. (Excludes armed forces abroad.)

**SELECTED PASSENGER AND CARGO PERFORMANCE INDICATORS  
BY MODE OF TRANSPORTATION, 1963, 1972, and 1973 (cont.)**

<b>GENERAL AVIATION</b>	<u>1963</u>	<u>1972</u>	<u>1973</u>
Average number of persons per one eligible aircraft	2,215	1,436	1,367
Total number of miles flown per capita	10.9	16.0	17.8
Total number of miles flown per aircraft	24,075	22,875	24,284
Total flight time per capita (minutes)	4.8	7.8	8.6
Total number of hours flown per aircraft	177.5	185.5	195.4
<b>HIGHWAY</b>			
Average number of persons per one mile of rural highway			
Under state control	278.2	292.4	295.4
Under local control	80.3	92.5	93.3
Under Federal control	1,552.3	995.5	972.6
Total rural roads	59.9	65.6	65.1
Average number of persons per one mile of municipal highway			
Under state control	3,184.5	2,604.0	2,568.7
Under local control	453.3	390.3	381.8
Total municipal mileage	396.8	339.5	332.4
Average number of persons per one mile of rural and municipal highway	52.1	55.0	55.1
Average number of autos per one mile of rural highway			
Under state control	101.4	135.3	142.4
Under local control	29.3	42.8	45.0
Under Federal control	566.0	460.5	469.0
Total rural roads	21.9	30.4	31.9
Average number of autos per one mile of municipal highway			
Under state control	1,161.2	1,204.6	1,238.7
Under local control	165.3	180.6	184.1
Total municipal mileage	144.7	157.0	160.3
Average number of autos per one mile of rural and municipal highway	19.0	25.4	26.6

**SELECTED PASSENGER AND CARGO PERFORMANCE INDICATORS  
BY MODE OF TRANSPORTATION, 1963, 1972, and 1973 (cont.)**

<b>AUTOMOBILE</b>	<u>1963</u>	<u>1972</u>	<u>1973</u>
Average number of persons per registered vehicle			
Passenger cars and taxis	2.7	2.2	2.1
Motorcycles	244.3	55.2	48.4
Vehicle-miles of travel per capita, passenger cars, taxis, motorcycles			
Urban streets	1,571.1	2,725.5	2,822.1
Main rural roads	1,244.9	1,587.7	1,628.0
Local rural roads	479.4	505.9	489.1
Total travel	3,473.5	4,819.2	4,939.2
Passenger-miles per capita, passenger cars and taxis, total travel	n/a	10,421.6	10,660.7
Vehicle-miles of travel per vehicle, passenger cars and taxis			
Urban streets	4,796.8	5,891.6	5,852.3
Main rural roads	3,413.9	3,432.0	3,376.2
Local rural roads	1,314.8	1,093.7	1,014.3
Total travel	9,525.6	10,417.3	10,242.8
Passenger-miles per vehicle, passenger cars and taxis	n/a	22,527.6	22,108.1
<b>BUS</b>			
Average number of persons per intercity bus	8,932.8	9,254.7	9,410.0
Vehicle-miles per capita			
Commercial buses	15.1	13.2	12.1
School and non-revenue buses	8.7	11.3	11.5
All buses	23.8	21.5	23.6
Vehicle-miles per capita, all buses			
Urban streets	11.1	10.2	9.7
Main rural roads	8.1	8.6	8.6
Local rural roads	4.7	5.7	5.3
Total travel	23.8	24.5	23.6
Revenue passenger-miles per capita			
Total intercity bus	119.4	122.9	125.8
Revenue passenger-miles per vehicle			
Total intercity bus (millions)	1.1	1.1	1.2

**SELECTED PASSENGER AND CARGO PERFORMANCE INDICATORS  
BY MODE OF TRANSPORTATION, 1963, 1972, and 1973 (cont.)**

<b>TRUCK</b>	<u>1963</u>	<u>1972</u>	<u>1973</u>
<b>Average number of persons per registered truck</b>			
Private and commercial	14.8	10.3	9.5
Federal	1,913.7	1,261.1	1,227.2
State, county, municipal	317.2	245.5	236.8
Total	14.0	9.8	9.0
<b>Vehicle-miles per capita, all trucks</b>			
Urban streets	280.2	520.8	539.2
Main rural roads	343.8	560.1	569.6
Local rural roads	128.8	166.4	164.2
Total travel	752.7	1,247.3	1,273.1
<b>Vehicle-miles per truck registration</b>			
Urban streets	3,933.8	5,106.2	4,870.4
Main rural roads	4,826.6	5,491.4	5,145.1
Local rural roads	1,807.9	1,631.5	1,483.1
Total travel	10,568.3	12,229.1	11,498.7
Intercity ton-miles per capita	1,760.3	2,257.1	2,406.5
<b>LOCAL TRANSIT</b>			
<b>Revenue vehicle-miles per vehicle</b>			
Motor bus	30,832	26,653	28,381
Subway and elevated	43,624	40,985	43,390
Surface rail	27,847	26,871	27,780
Trolley coach	28,956	28,932	32,368
Total transit	32,509	28,921	30,787
<b>Revenue vehicle-miles per capita</b>			
Motor bus	8.1	6.3	6.5
Subway and elevated	2.1	1.9	1.9
Surface rail	0.3	0.2	0.1
Trolley coach	0.3	0.1	0.1
Total transit	10.7	8.4	8.7
<b>Average number of persons per vehicle</b>			
Motor bus	3,815.4	4,243.1	4,345.9
Subway and elevated	21,230.3	22,098.1	22,354.7
Surface rail	107,336.6	177,066.3	186,860.2
Trolley coach	87,463.1	202,165.0	264,287.2
Total transit	3,030.8	3,430.3	3,521.5

**SELECTED PASSENGER AND CARGO PERFORMANCE INDICATORS  
BY MODE OF TRANSPORTATION, 1963, 1972, and 1973 (cont.)**

<b>WATER TRANSPORT</b>	<u>1963</u>	<u>1972</u>	<u>1973</u>
Ton-miles per capita, domestic water			
Coastwise	1,677.1	1,688.1	1,561.4
Internal	501.0	852.6	819.1
Lakewise	362.3	351.2	399.2
Local	9.3	6.6	6.6
Total	2,549.7	2,898.5	2,786.3
Domestic deep sea ton-miles per capita	1,294.5	1,267.8	1,077.0
Tons of freight hauled per capita, domestic water			
Coastwise	1.1	1.2	1.1
Internal	1.8	2.4	2.4
Lakewise	0.8	0.7	0.7
Local	0.5	0.4	0.4
Total	4.2	4.7	4.7
 <b>CLASS I RAILROADS</b>			
Revenue passenger-miles per capita			
Commutation	21.8	19.8	19.4
Other	76.4	5.9	5.9
Total	98.1	25.7	25.3
Revenue passenger-miles per passenger car (millions)	0.8	1.0	1.2
Revenue ton-miles per capita	3,298.6	3,730.2	4,058.4
Revenue ton-miles per freight car (millions)	0.4	0.6	0.6
Average number of persons per vehicle			
Freight cars	124.6	147.6	150.4
Passenger cars	7,661.3	40,566.9	45,767.5
Locomotives	6,625.3	7,691.4	7,641.5
Total	120.4	144.3	147.0
 <b>OIL PIPELINE</b>			
Intercity ton-miles per capita, regulated plus non-regulated pipelines	1,344.8	2,285.0	2,416.1
Intercity ton-miles per mile of line, regulated plus non-regulated lines (millions)	1.2	2.2	2.3
Tons of petroleum transported per capita	2.8	4.2	4.3
Tons of petroleum transported per mile of line	2,158.4	3,966.0	4,101.5



# **TRANSPORTATION TRENDS**





**Table 1. Average Passenger Revenue Per Passenger-Mile, 1963-1973  
(Cents)**

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
<b>Certificated air carrier domestic operations<sup>1</sup></b>											
Total	6.17	6.12	6.06	5.83	5.64	5.61	5.79	6.00	6.32	6.40	6.13
First class	7.17	7.26	7.33	7.24	7.24	7.33	7.78	8.30	8.58	8.70	8.70
Coach plus economy	5.62	5.58	5.52	5.28	5.13	5.11	5.27	5.45	5.82	5.88	5.83
<b>Class I rail<sup>2</sup></b>											
Total	3.18	3.17	3.18	3.18	3.20	3.39	3.61	3.92	4.25	4.80	4.88
Commutation	3.17	3.20	3.30	3.33	3.36	3.49	3.55	3.75	3.92	4.23	4.29
Other than commutation	3.18	3.16	3.14	3.13	3.13	3.33	3.63	4.02	4.85	6.60	6.81
<b>Class I intercity bus<sup>3</sup></b>	2.78	2.80	2.88	2.89	2.98	3.18	3.39	3.60	3.83	3.98 <sup>r</sup>	4.05

<sup>r</sup> revised

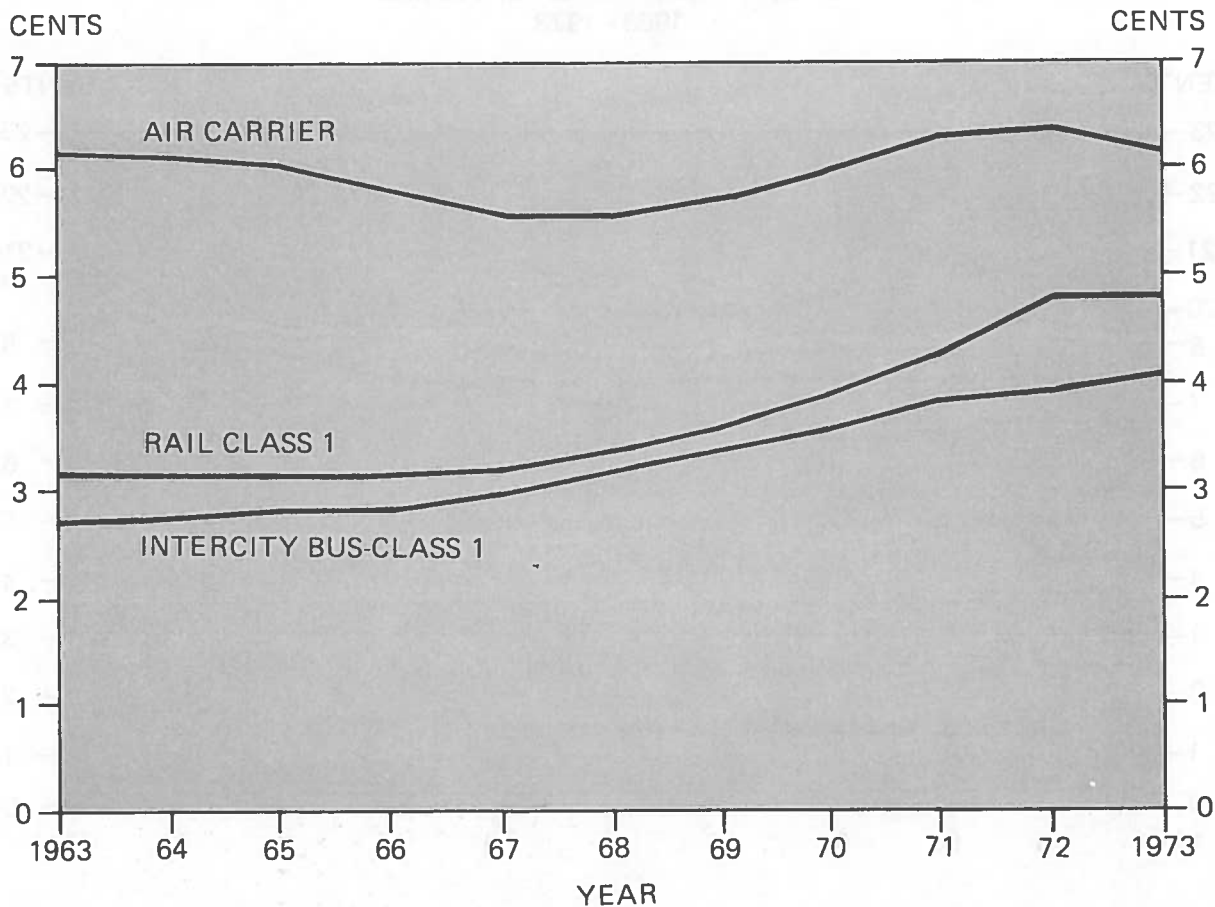
<sup>1</sup> Scheduled service.

<sup>2</sup> Excludes Amtrak service.

<sup>3</sup> Regular route intercity service.

Sources: See page 133.

**Average Passenger Revenue Per Passenger-Mile  
1963 - 1973**



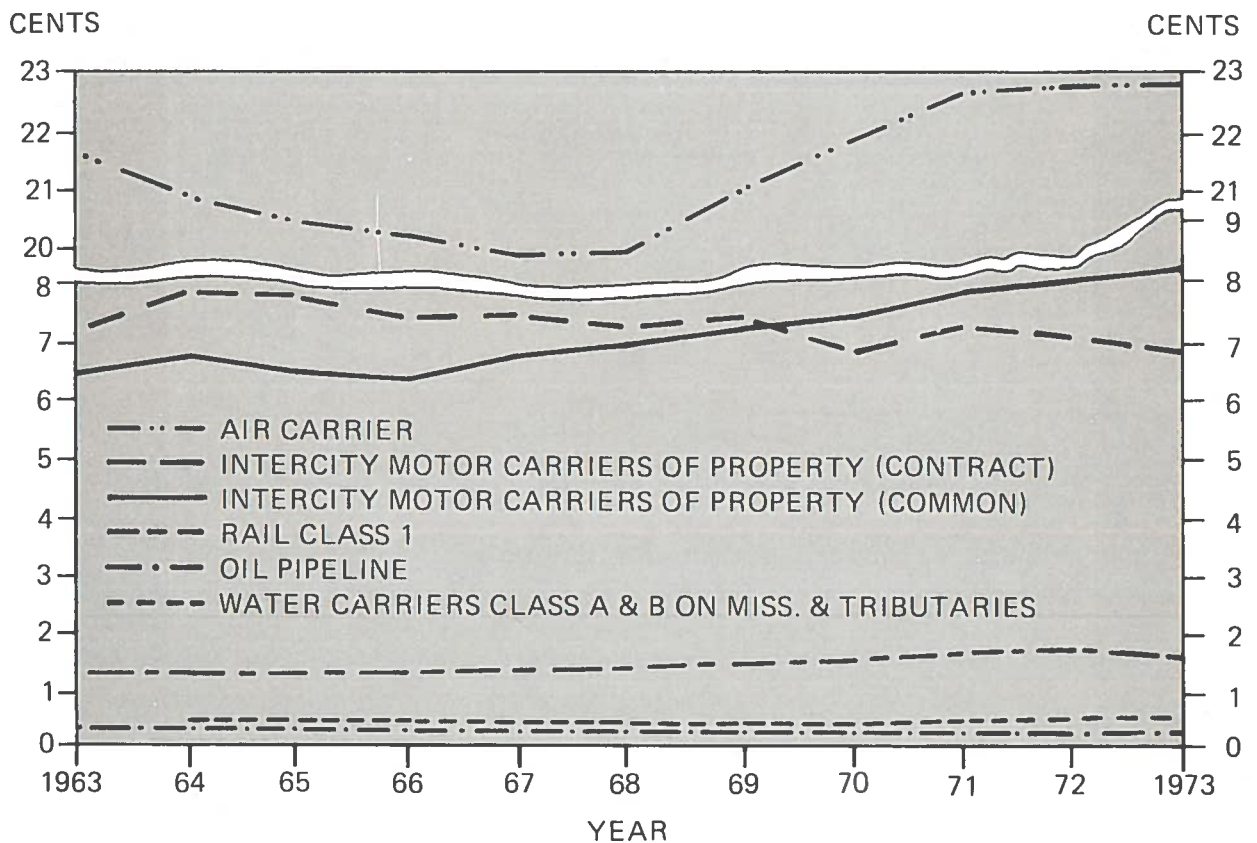
**Table 2. Average Freight Revenue Per Ton-Mile, 1963 - 1973  
(Cents)**

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Air carrier certificated, domestic operations, scheduled service	21.72	20.97	20.46	20.21	19.90	19.97	21.03	21.91	22.61	22.75	22.65
Class I rail	1.31	1.28	1.27	1.26	1.27	1.31	1.35	1.43	1.59	1.62	1.62
Class I intercity motor carriers of property <sup>1</sup>											
Common	6.38	6.66	6.46	6.34	6.65	6.93	7.21	7.46	7.85	8.00	8.24
Contract	7.13	7.85	7.66	7.31	7.36	7.23	7.35	6.85	7.20	7.02	6.68
Oil pipelines	0.32	0.30	0.28	0.27	0.26	0.26	0.27	0.27	0.29	0.29	0.29
Class A and B water carriers	n/a	0.45	0.44	0.43	0.38	0.40	0.41	0.43	0.47	0.47	0.55

<sup>1</sup> Intercity service.

Sources: See page 134.

**Average Freight Revenue Per Ton-Mile  
1963 - 1973**



**Table 3. Average Passenger Fare, 1963 - 1973  
(Dollars)**

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Air carrier Certificated domestic operations scheduled service	34.22	34.13	34.12	33.40	33.15	33.70	37.52	40.71	43.08	43.87	56.56
Class I bus, intercity <sup>1</sup>	2.52	2.55	2.73	2.71	2.79	2.91	3.55	3.81	4.19	4.25 <sup>1</sup>	4.69
Local transit Railway											
Surface rail	0.23	0.23	0.24	0.24	0.23	0.24	0.25	0.27	0.26	0.27	0.27
Subway and elevated	.16	.17	.17	.19	.21	.21	.22	.23	.24	.25	.26
Total	.17	.17	.17	.19	.21	.21	.22	.24	.24	.25	.26
Trolley coach	.21	.21	.22	.22	.22	.23	.23	.24	.28	.28	.32
Motor bus	.20	.20	.21	.21	.22	.23	.26	.29	.32	.34	.34
Grand total	.19	.19	.20	.21	.22	.23	.25	.28	.30	.31	.32
Class I rail Other than commutation	4.00	3.86	3.92	3.83	3.48	3.16	3.15	3.19	1.92 <sup>2</sup>	1.47 <sup>2</sup>	1.54 <sup>2</sup>
Commutation	.67	.68	.71	.72	.72	.75	.78	.84	.87 <sup>2</sup>	.93 <sup>2</sup>	.95 <sup>2</sup>

<sup>r</sup> Revised

<sup>1</sup> Intercity regular route service.

<sup>2</sup> Excludes AMTRAK service.

Sources: See page 134.

**Average Passenger Fare, 1963 - 1973**

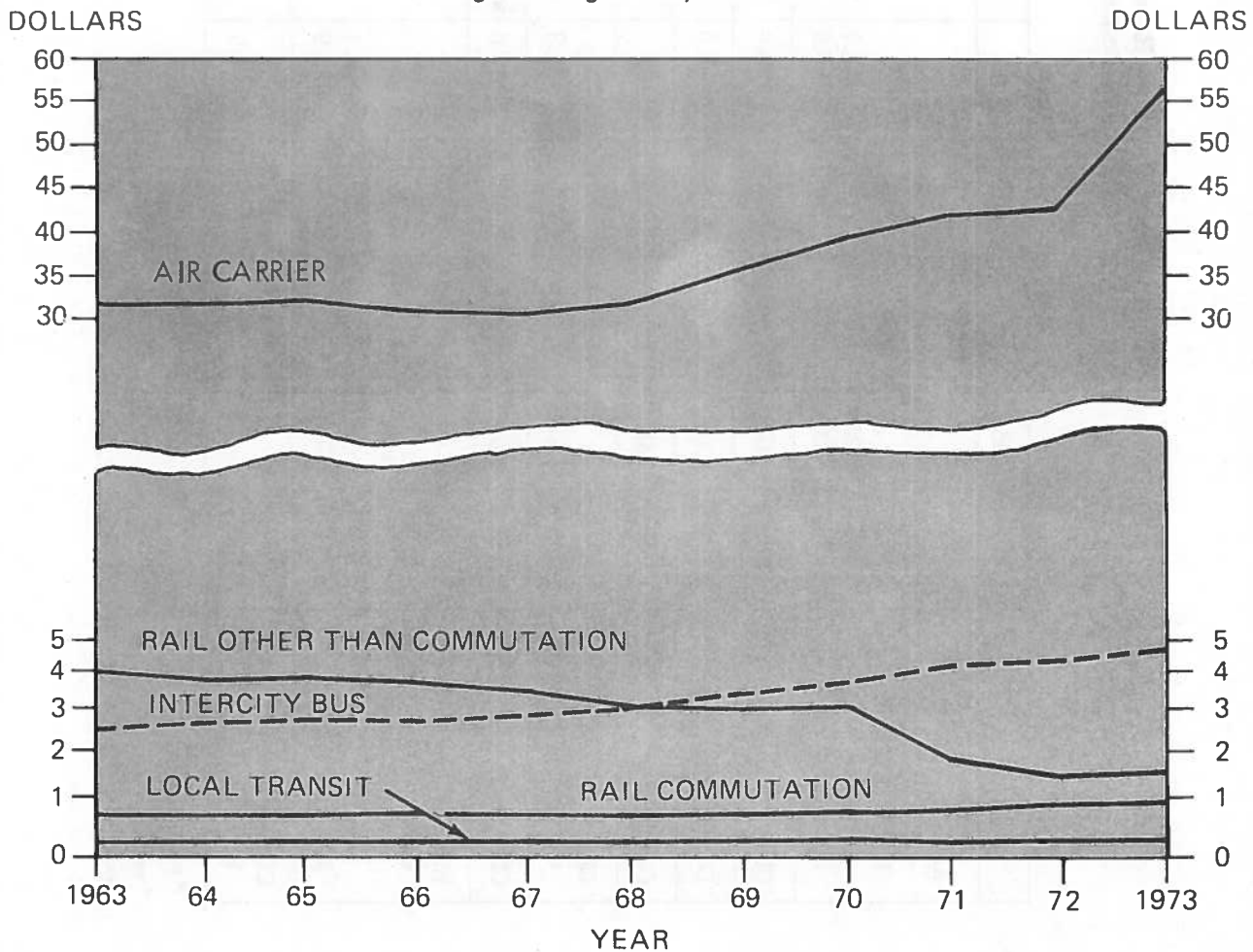


Table 4. Total Operating Revenues, 1963 - 1973  
(Millions of Dollars)

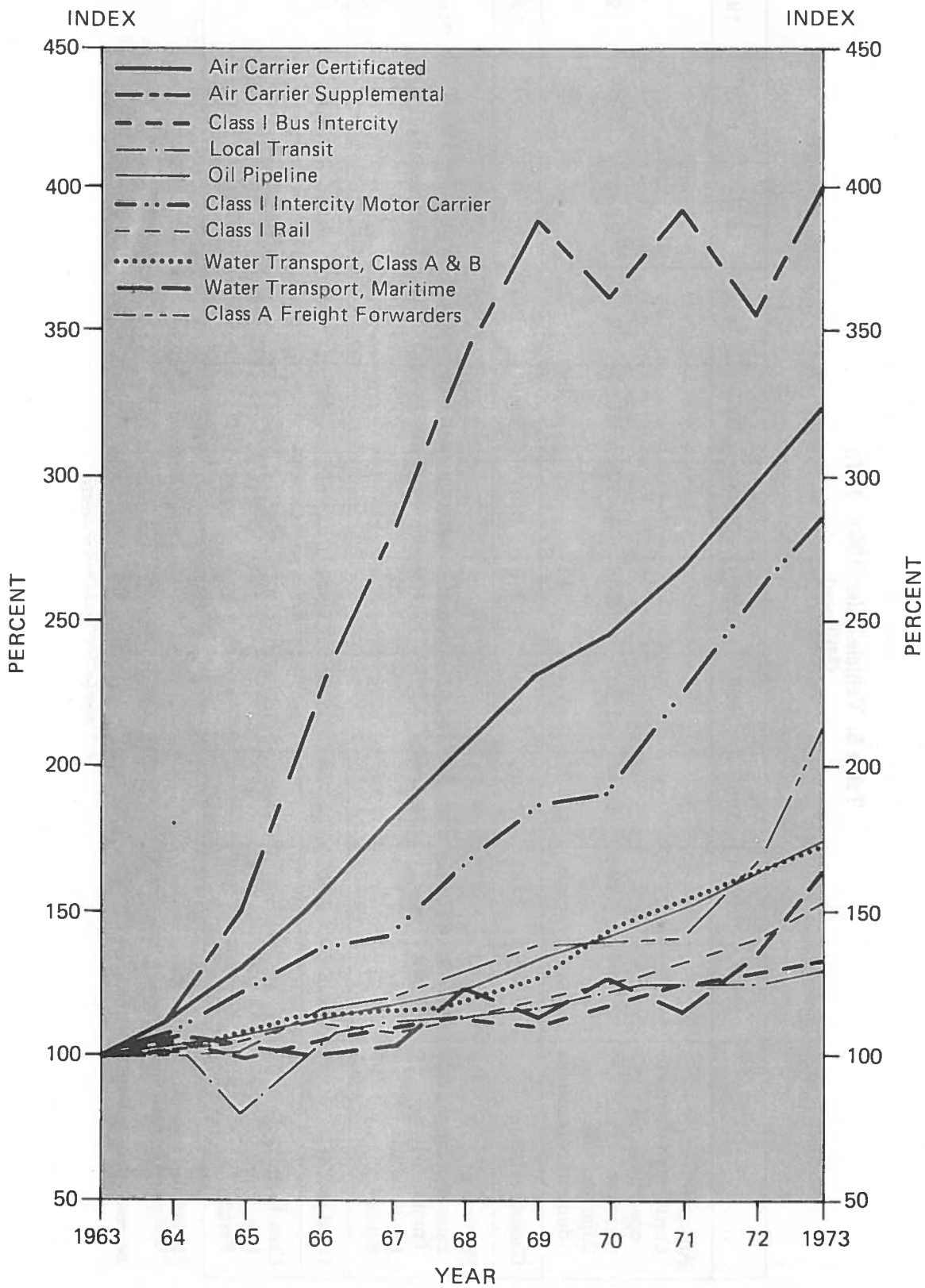
	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Air carrier, domestic and international	3,759.1	4,250.9	4,957.9	5,745.0	6,864.7	7,753.2	8,790.9	9,240.2	10,045.7	11,163.3	12,210.1
Certificated, all services	92.7	105.8	140.9	209.2	258.6	328.2	361.4	336.9	363.7	331.1	374.2
Supplemental	609.8	655.1	607.3	644.3	669.6	694.6	677.0	721.7	758.4	775.3 <sup>r</sup>	812.6 <sup>p</sup>
Class I bus, intercity	1,390.6	1,480.1	1,143.8	1,478.5	1,556.0	1,562.7	1,625.6	1,707.4	1,740.7	1,728.5	1,797.6
Local transit	980	1,013	1,051	1,096	1,157	1,205	1,309	1,396	1,492	1,593	1,701
Oil pipeline											
Class I intercity motor carriers of property	5,756.4	6,199.5	7,130.7	7,896.6	8,091.3	9,592.8	10,769.7	11,137.0	13,011	14,994 <sup>r</sup>	16,478 <sup>p</sup>
Class I rail	9,559.5	9,856.5	10,207.8	10,654.6	10,366.0	10,854.7	11,450.3	11,991.7	12,689.0	13,411.1	14,796.0
Water transport											
Classes A and B carriers, inland and coastal	258.1	257.9	282.6	298.1	296.1	307.6	327.5	371.8	394.0	416.5 <sup>r</sup>	445.3 <sup>p</sup>
Maritime carriers	652.7	704.8	678.9	654.5	673.9	801.9	739.3	832.7	749.0	884.9 <sup>r</sup>	1,087.2 <sup>p</sup>
Class A freight forwarders	152.2	156.2	155.4	180.0	185.7	196.9	211.1	211.0	216.1	252.7 <sup>r</sup>	325.7 <sup>p</sup>

P Preliminary.

r revised

Sources: See pages 134 and 135.

### Total Operating Revenues, 1963 - 1973



**Table 5. Vehicle-Miles, 1963 - 1973**  
(Millions)

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Air carrier Certificated domestic operations, all services	926	998	1,134	1,237	1,538	1,779	2,080	2,065	2,045	2,042	2,194
Supplemental domestic operations	n/a	n/a	n/a	n/a	42	50	43	34	36	34	34
General aviation	2,049	2,181	2,562	3,336	3,440	3,700	3,926	3,207	3,143	3,571	3,729
Highway											
Passenger car and taxi	645,371 <sup>1</sup>	677,613 <sup>1</sup>	706,386	744,844	766,466	805,693	849,633	890,844	939,102	986,407	1,016,861
Truck	155,569	164,271	171,436	173,905	182,456	196,651	206,680	214,670	227,037	259,735	267,147
Intercity bus	1,155	1,183	1,157	1,200	1,205	1,190	1,195	1,209	1,202	1,182 <sup>2</sup>	1,175
School bus	1,642	1,724	1,763	1,884	1,870	1,937	2,030	2,100	2,212	2,359	2,412
Local transit	2,022	2,016	2,008	1,984	1,997	1,989	1,967	1,883	1,846	1,756	1,835
Class I rail											
Passenger	189	184	172	164	150	123	107	93	53 <sup>2</sup>	33 <sup>2</sup>	33
Freight	400	414	421	437	420	429	433	427	430 <sup>2</sup>	451 <sup>2</sup>	476

<sup>1</sup> Includes motorcycles.

<sup>2</sup> Excludes AMTRAK operations.

Sources: See pages 135 and 136.

### Vehicle-Miles, 1963 - 1973

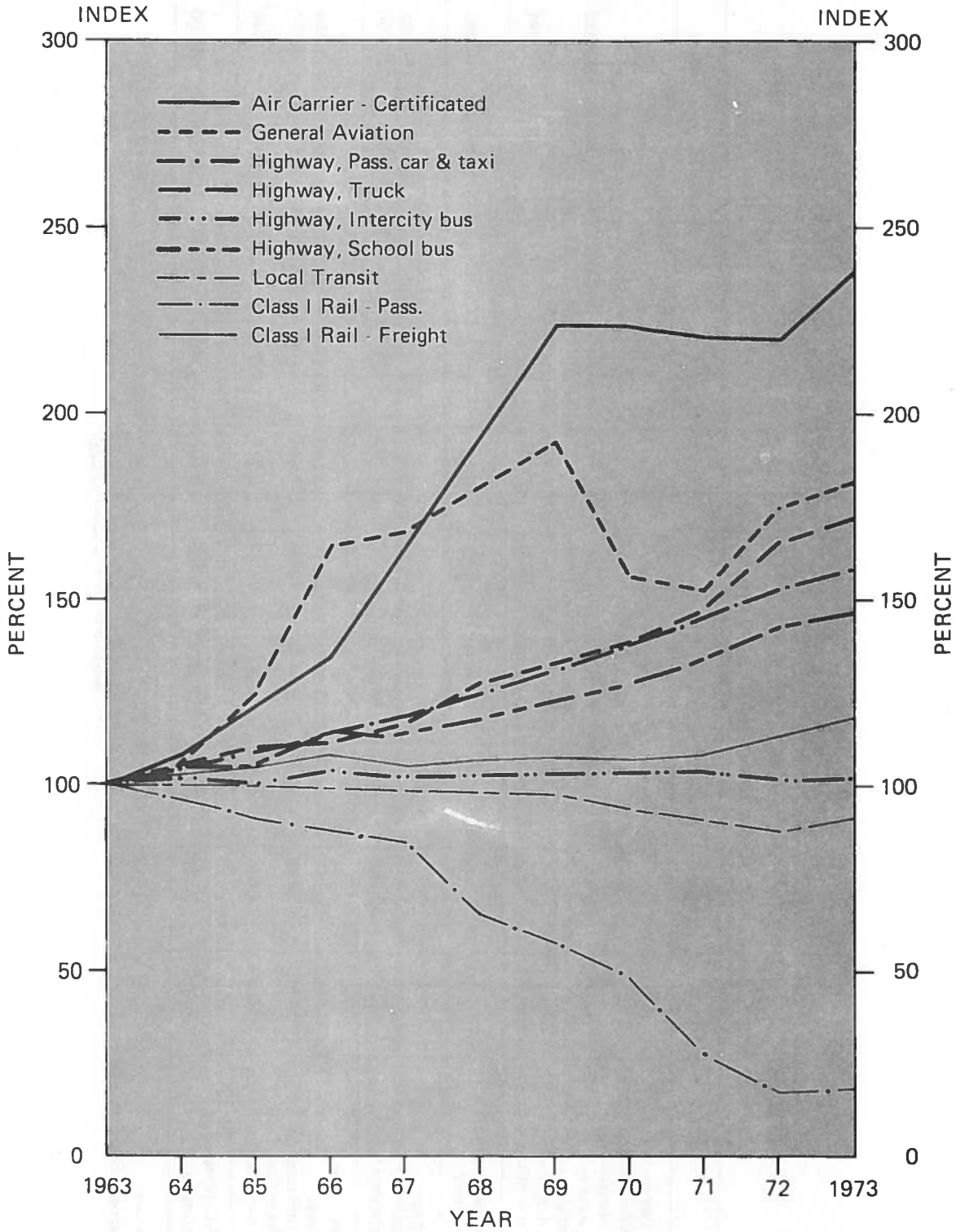


Table 6. Passenger-Miles, 1963 - 1973  
(Millions)

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Air carrier Certificated domestic operations, all services	39,016	45,046	53,226	63,085	79,522	92,112	109,541	108,451	109,804	121,820	162,224
Supplemental domestic operations	n/a	n/a	n/a	n/a	709	1,620	1,560	1,057	914	1,281	1,995
General aviation, intercity	3,400	3,700	4,400	5,700	7,000	8,200	8,800	9,100	9,300	10,000	10,700
Highway Passenger car and taxi	1,419,816	1,490,749	1,554,049	1,638,657	1,686,225	1,772,525	1,869,193	1,959,857	2,066,024	2,170,095	2,237,094
Intercity bus	22,500	23,300	23,800	24,600	24,900	24,500	24,900	25,300	25,500	25,600	26,400
Class I Rail Total	18,497	18,247	17,388	17,096	15,201	13,120	12,168	10,771	6,908	5,354	5,302
Commutation	4,101	4,199	4,128	4,193	4,281	4,383	4,546	4,592	4,427	4,120	4,064
Other than commutation	14,396	14,048	13,260	12,903	10,920	8,737	7,623	6,179	2,481	1,249 <sup>r</sup>	1,238
Domestic water, intercity	2,800	2,800	3,100	3,400	3,400	3,500	3,800	4,000	4,100	4,000	4,000

<sup>r</sup> revised

Sources: See page 136.



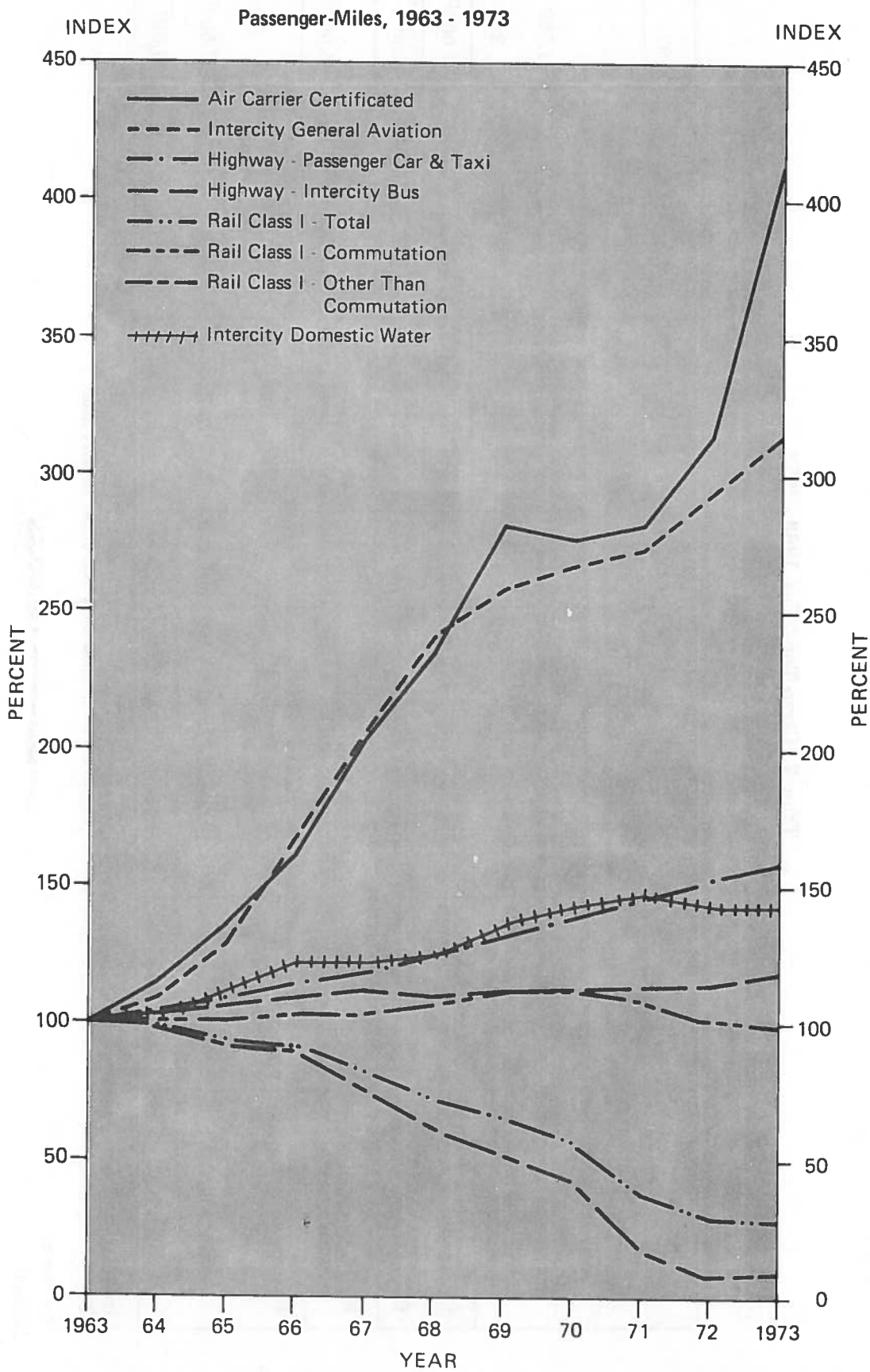


Table 7. Cargo Ton-Miles, 1963 - 1973  
(Millions)

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Air carrier Certificated domestic operations, all services <sup>1</sup>	1,099	1,294	1,670	1,985	2,310	2,590	3,295	3,010	3,151	3,403	4,759
Supplemental domestic operations <sup>2</sup>	219	268	298	425	442	494	469	391	306	259	281
Oil pipeline	253,431	268,655	306,393	332,916	361,041	391,300	411,000	431,000	444,000	475,800 <sup>r</sup>	507,000 <sup>P</sup>
Class I rail	621,737	658,639	697,878	738,395	719,498	744,023	767,841	764,809	739,743	776,746 <sup>r</sup>	851,692
Motor vehicles, intercity	336,000	356,000	359,000	380,917	388,500	396,300	404,000	412,000	445,000	470,000	505,000 <sup>P</sup>
Water transport Inland waterways, including Great Lakes	234,172	250,165	262,421	280,527	281,400	291,409	302,901	318,560	315,030	338,693 <sup>r</sup>	357,500 <sup>P</sup>
Total domestic system	480,577	488,829	489,803	507,084	515,387	520,633	528,897	596,195	593,164	603,542	584,691

<sup>1</sup> Includes revenue ton-miles of freight, U.S. and foreign mail, and express.

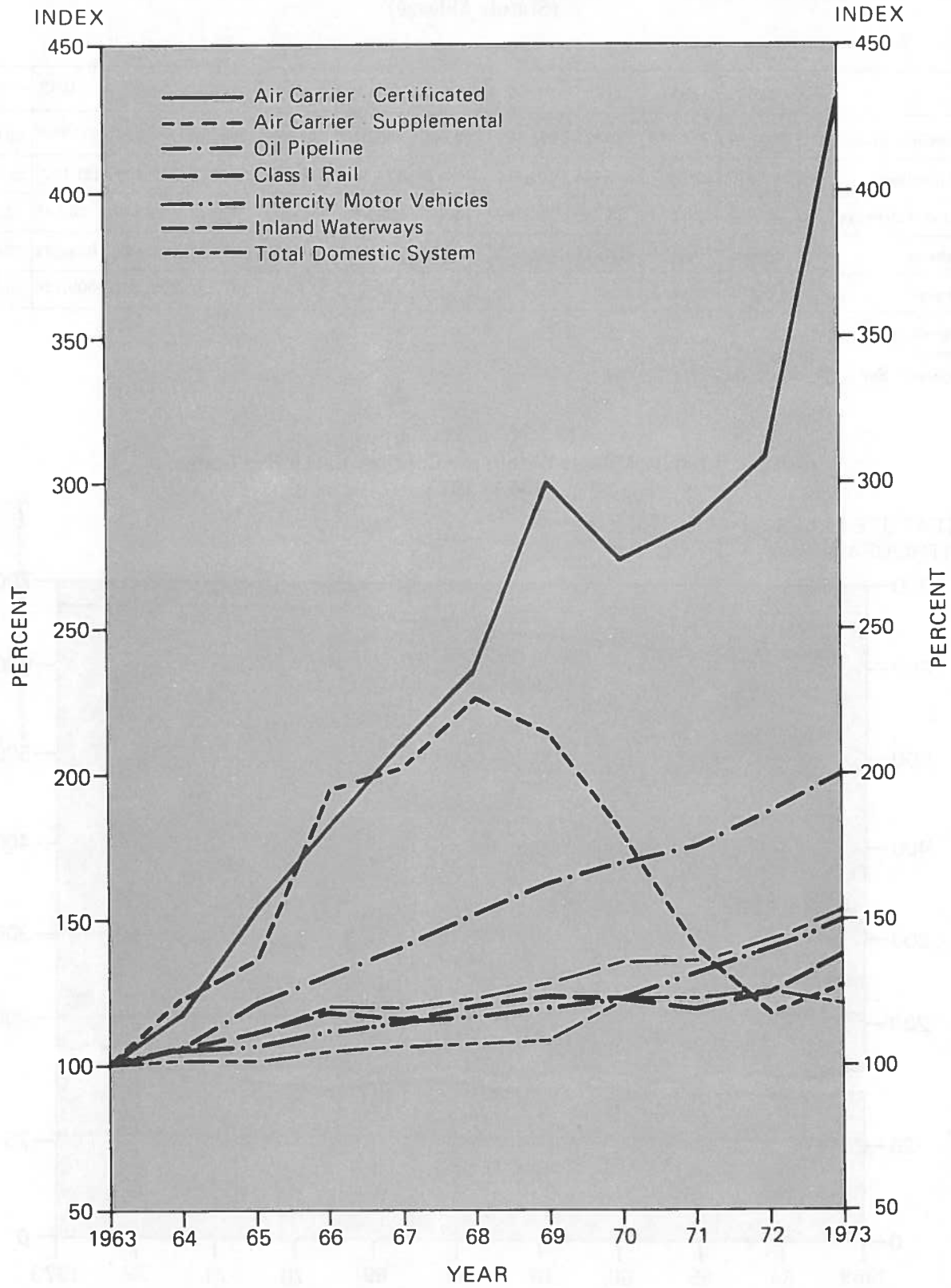
<sup>2</sup> Includes revenue ton-miles of freight and express. Supplemental carriers are not ordinarily authorized to carry mail.

<sup>P</sup>Preliminary

<sup>r</sup>revised

Sources: See pages 136 and 137.

### Cargo Ton-Miles, 1963 - 1973



**Table 8. Basic Intercity Mileage Within the Continental United States, 1963 - 1973  
(Statute Mileage)**

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Railroads, all line haul	214,387	212,603	211,925	211,107	209,826	208,648	207,526	206,265	205,220 <sup>r</sup>	203,299 <sup>r</sup>	201,300
Oil pipelines <sup>1</sup>	206,876	210,807	213,764	216,745	209,478	213,555	216,453	218,617 <sup>r</sup>	219,899 <sup>r</sup>	221,127 <sup>r</sup>	222,355
Inland waterways	25,260	25,380	25,380	25,380	25,380	25,380	25,543	25,543	25,543	25,543	25,543
Highways	594,412	606,154	617,114	628,600	640,313	648,768	657,601	665,903	672,838	678,285	679,387
Airways	252,325	263,348	288,275	259,083	264,165	277,554	283,861	291,231	295,301	300,126	304,260

<sup>1</sup> Includes gathering lines.

<sup>r</sup> revised

Sources: See page 137.

**Basic Intercity Mileage Within the Continental United States  
1963 - 1973**

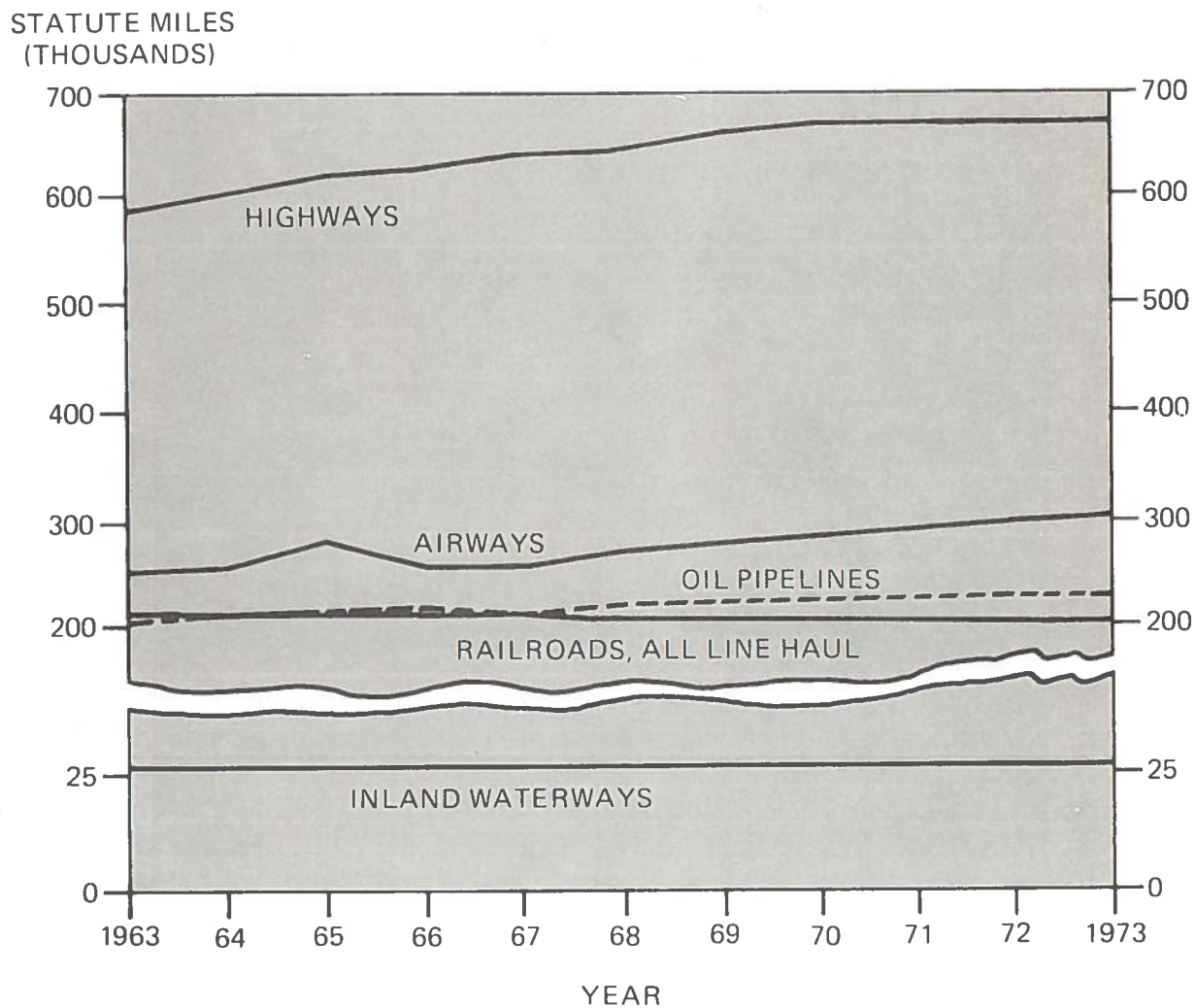
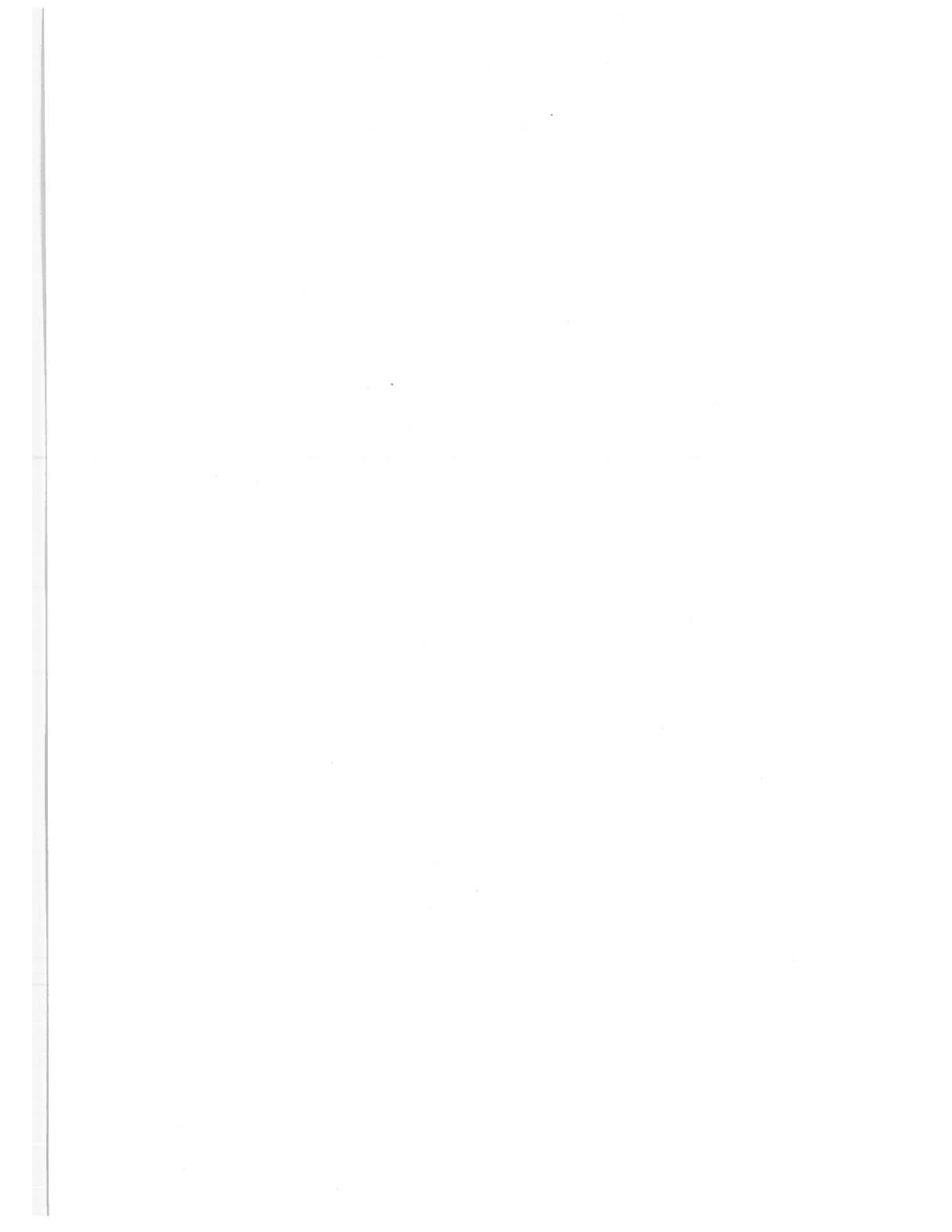


Table 9. Number of Vehicles, 1963 - 1973

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
<b>Air Carrier</b>											
Domestic and International certificated all services	n/a	1,894	n/a	2,082	n/a	2,406	n/a	2,569	2,536	2,518	2,467
Domestic and International supplemental	n/a	210	n/a	237	n/a	232	n/a	195	184	156	133
Total	n/a	2,124	n/a	2,319	n/a	2,638	n/a	2,690	2,720	2,674	2,600
<b>General Aviation</b>	85,088	88,742	95,442	104,706	114,186	124,237	130,806	131,743	131,148	145,010	153,540
<b>Motorcycle</b>	786,318	984,763	1,381,956	1,752,801	1,953,022	2,100,547	2,315,916	2,814,730	3,345,179	3,774,996	4,332,580
<b>Passenger Car &amp; Taxi</b>	69,055,428	71,982,740	75,251,386	78,122,965	80,414,180	83,692,699	86,861,334	89,279,864	92,799,052	96,330,603	101,188,735
<b>Intercity Bus</b>	21,100	21,500	20,600	21,500	21,900	22,100	22,700	23,100	23,000	22,500 <sup>r</sup>	22,300
<b>Local Transit</b>											
Motorbus	49,400	49,200	49,600	50,130	50,180	50,000	49,600	49,700	49,150	49,075	48,286
Subway & Elevated	8,878	9,061	9,115	9,273	9,257	9,390	9,343	9,325	9,325	9,423	9,726
Surface Rail	1,756	1,553	1,549	1,407	1,388	1,355	1,322	1,262	1,235	1,176	1,080
Trolley Coach	2,155	1,865	1,453	1,326	1,244	1,185	1,082	1,060	1,037	1,030	1,013
Total	62,189	61,679	61,717	62,136	62,069	61,930	61,347	61,350	60,737	60,704	60,105
<b>Class I Rail</b>	1,512,306	1,488,385	1,478,005	1,488,115	1,477,166	1,453,883	1,434,824	1,423,921	1,422,411	1,410,568	1,395,105
Freight Cars	28,449	28,300	27,816	27,886	27,687	27,376	27,033	27,086	27,189 <sup>r</sup>	27,073	27,461
Locomotives	24,602	23,057	21,327	20,016	18,610	15,384	12,426	11,177	7,505	5,133 <sup>r</sup>	4,585
Passenger Cars & Pullman	1,565,357	1,539,742	1,527,148	1,536,017	1,523,463	1,496,643	1,474,283	1,462,184	1,457,105 <sup>r</sup>	1,442,774 <sup>r</sup>	1,427,151
Total											
<b>Truck</b>	706,000	738,000	787,000	823,000	830,000	871,000	929,000	960,000	974,000	990,000	1,028,000
Combinations	12,684,000	13,275,000	14,008,000	14,694,000	15,363,000	16,124,000	16,942,000	17,778,000	18,828,000	20,249,000	22,206,000
Single Unit	13,360,000	14,013,000	14,795,000	15,517,000	16,193,000	16,995,000	17,871,000	18,748,000	19,802,000	21,239,000	23,233,000
Total											
<b>Nonself-propelled vessels</b>											
Dry Cargo Barges & Scows	14,415	14,432	14,241	14,241	15,830	15,379	15,379	15,890	16,439	17,527	18,804
Tank Barges	2,739	2,649	2,548	2,548	2,781	3,001	3,001	3,281	3,185	3,420	3,313
Total	17,154	17,081	16,789	16,789	18,611	18,380	18,380	19,171	19,624	20,947	22,117
<b>Towboats &amp; Tug</b>	4,205	3,994	4,054	4,054	4,395	4,284	4,284	4,248	4,230	4,278	4,064
<b>Total Vessels</b>	21,359	21,075	20,843	20,843	23,006	22,664	22,664	23,419	23,854	25,225	26,181

<sup>r</sup> revised

Sources: See pages 137 and 138.



**SUPPLEMENTARY DATA**  
**Part 1: Transportation and the Economy**

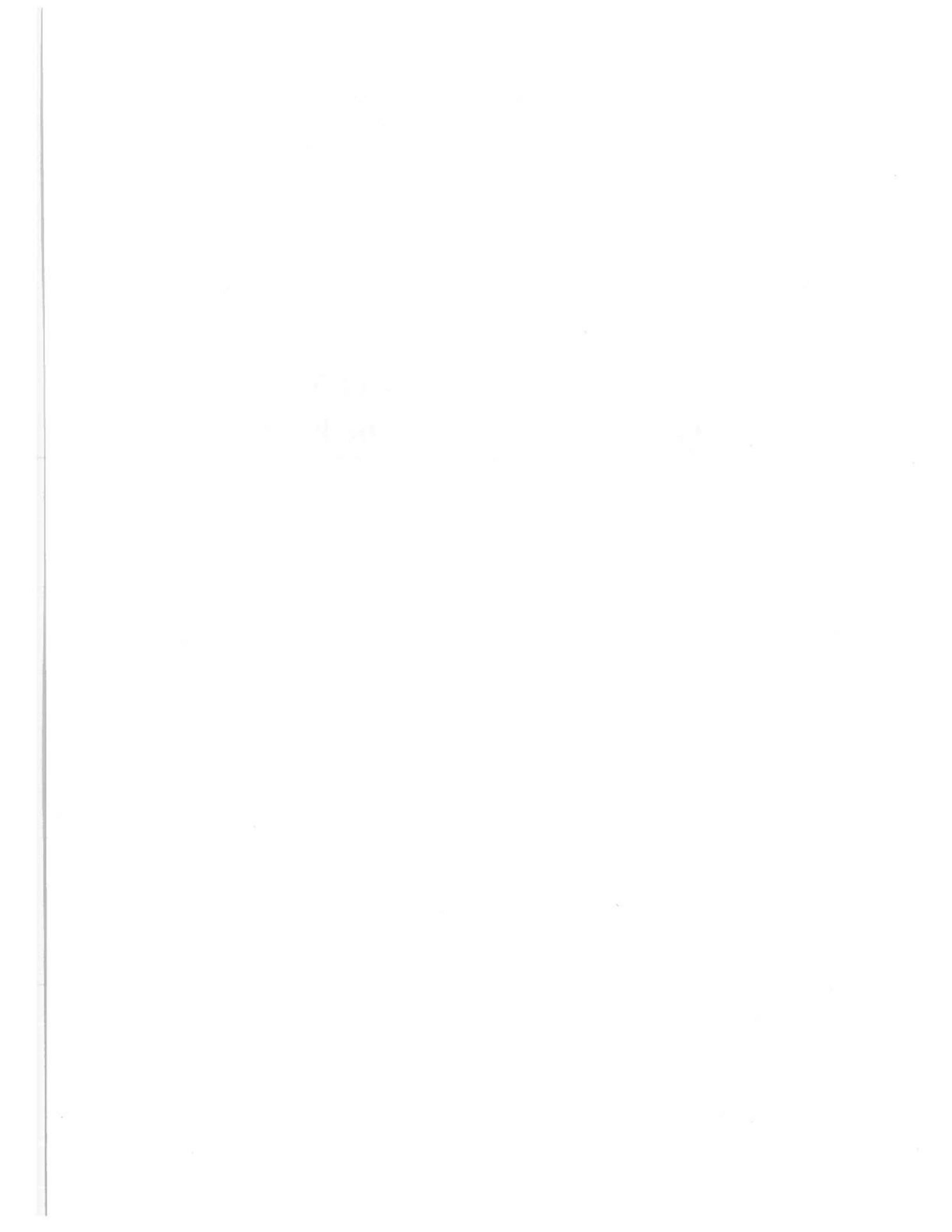




Table 10. Personal Consumption Expenditures by Transportation Sector, 1963 - 1973  
(Millions of Dollars)

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
<b>Transportation Total</b>	49,140	51,753	57,825	60,489	62,588	71,983	77,722	77,776	90,489 <sup>r</sup>	99,949 <sup>r</sup>	109,228
<b>User-Operated Transportation</b>											
Total	45,695	48,161	54,053	56,446	58,163	67,265	72,639	72,250	84,648 <sup>r</sup>	93,768 <sup>r</sup>	102,621
New Cars and Net Purchases of Used Cars	21,549	22,814	26,670	26,805	26,646	32,979	35,087	31,595	40,328 <sup>r</sup>	45,986 <sup>r</sup>	50,039
Tires, Tubes, Accessories and Parts	2,707	2,970	3,168	3,520	3,848	4,479	5,157	5,702	6,298 <sup>r</sup>	7,148 <sup>r</sup>	7,491
Maintenance	5,591	5,683	6,187	6,419	6,637	7,292	7,948	8,719	9,624 <sup>r</sup>	10,255 <sup>r</sup>	11,385
Gasoline & Oil	13,457	14,129	15,146	16,562	17,619	18,992	20,894	22,211	23,498 <sup>r</sup>	24,993 <sup>r</sup>	28,307
Tolls	344	381	404	447	464	504	540	545	583 <sup>r</sup>	619 <sup>r</sup>	652
Insurance	2,047	2,184	2,478	2,693	2,949	3,019	3,013	3,478	4,317	4,767 <sup>r</sup>	4,747
<b>Purchased Local Transportation</b>											
Total	1,977	1,988	2,022	2,099	2,216	2,266	2,386	2,505	2,579 <sup>r</sup>	2,586 <sup>r</sup>	2,616
Street, Electric, Railway and Local Bus	1,252	1,261	1,278	1,317	1,385	1,397	1,477	1,557	1,579	1,568	1,600
Taxicab	595	593	607	642	687	716	747	776	824 <sup>r</sup>	841 <sup>r</sup>	836
Railway (commutation)	130	184	137	140	144	153	162	172	176	177	180
<b>Purchased Intercity Transportation</b>											
Total	1,468	1,604	1,750	1,944	2,209	2,452	2,747	3,021	3,262 <sup>r</sup>	3,595 <sup>r</sup>	3,991
Railway (non-commutation)	268	262	242	240	206	177	164	148	122	137	156
Intercity Bus	316	324	329	356	358	365	377	391	413 <sup>r</sup>	414 <sup>r</sup>	435
Airline	853	985	1,145	1,318	1,617	1,879	2,172	2,446	2,690	3,004 <sup>r</sup>	3,358
Other	31	33	34	30	28	31	34	36	37 <sup>r</sup>	40 <sup>r</sup>	42

<sup>r</sup> revised

Sources: See page 138.

# Personal Consumption Expenditures by Transportation Sector, 1963 - 1973

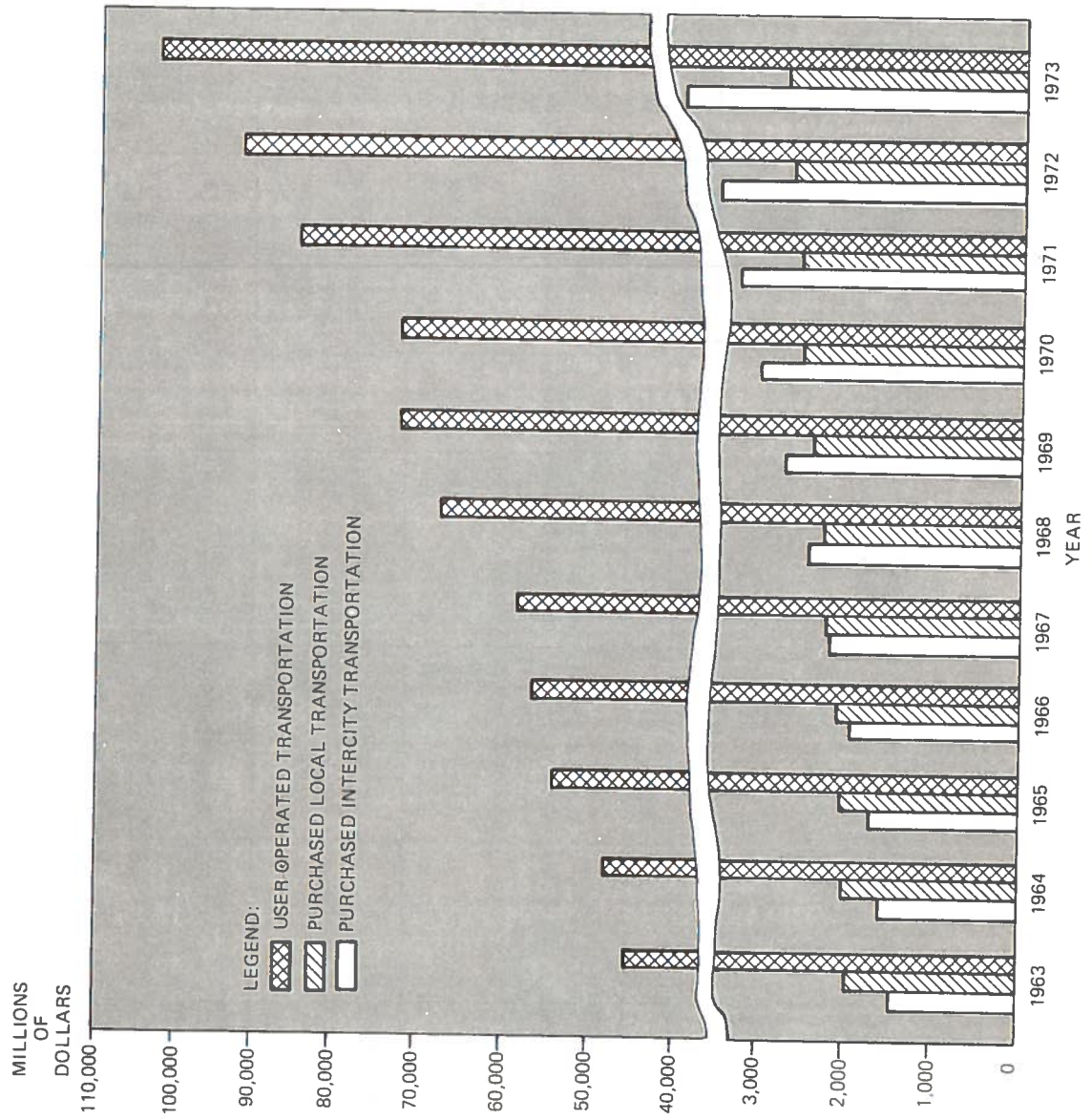


Table 11. Personal Consumption Expenditures by Type of Product, 1963 - 1973  
(Millions of Dollars)

	1963	1964	1965	1966	1967	1968	1969	1970	1971 <sup>3</sup>	1972 <sup>3</sup>	1973
Food and tobacco <sup>1</sup>	96,008	100,671	106,791	114,621	117,744	125,134	130,707	141,181	147,680 <sup>†</sup>	156,438 <sup>†</sup>	178,676
Clothing accessories and jewelry	37,049	40,564	43,427	48,360	50,995	55,474	59,924	62,834	67,241 <sup>†</sup>	73,633 <sup>†</sup>	81,274
Personal care	6,530	7,032	7,509	8,068	8,558	9,049	9,760	10,420	10,621 <sup>†</sup>	11,443 <sup>†</sup>	12,315
Housing	55,410	59,189	63,157	67,506	71,848	77,311	84,141	90,926	99,117 <sup>†</sup>	107,895 <sup>†</sup>	116,367
Household operation	54,127	58,255	61,877	66,786	70,514	76,125	82,294	87,360	93,785 <sup>†</sup>	105,057 <sup>†</sup>	117,509
Medical care expenses	23,340	25,681	28,120	31,142	34,491	37,767	42,814	47,401	51,764 <sup>†</sup>	57,230 <sup>†</sup>	62,726
Personal business	18,422	20,066	22,055	24,287	26,182	29,532	33,277	35,314	38,131 <sup>†</sup>	41,421 <sup>†</sup>	45,183
Transportation <sup>2</sup>	49,140	51,753	57,825	60,489	62,588	71,983	77,772	77,776	90,489 <sup>†</sup>	99,949 <sup>†</sup>	109,228
Recreation	22,213	24,573	26,304	28,850	30,758	33,623	36,901	40,653	42,900 <sup>†</sup>	48,123 <sup>†</sup>	52,280
Private education and research	4,736	5,217	5,585	6,608	7,576	8,690	9,536	10,363	10,887 <sup>†</sup>	11,934 <sup>†</sup>	13,225
Religious and welfare activities	5,262	5,527	5,609	6,421	6,948	7,605	8,084	8,601	9,203 <sup>†</sup>	10,096	10,843
Foreign travel	2,745	2,828	3,206	3,196	3,864	3,795	4,247	4,815	5,217 <sup>†</sup>	5,798 <sup>†</sup>	5,595
Total	374,982	401,356	431,465	466,334	492,066	536,178	579,457	617,644	667,125 <sup>†</sup>	729,017 <sup>†</sup>	805,221

<sup>1</sup> Includes consumer expenditures for alcoholic beverages.

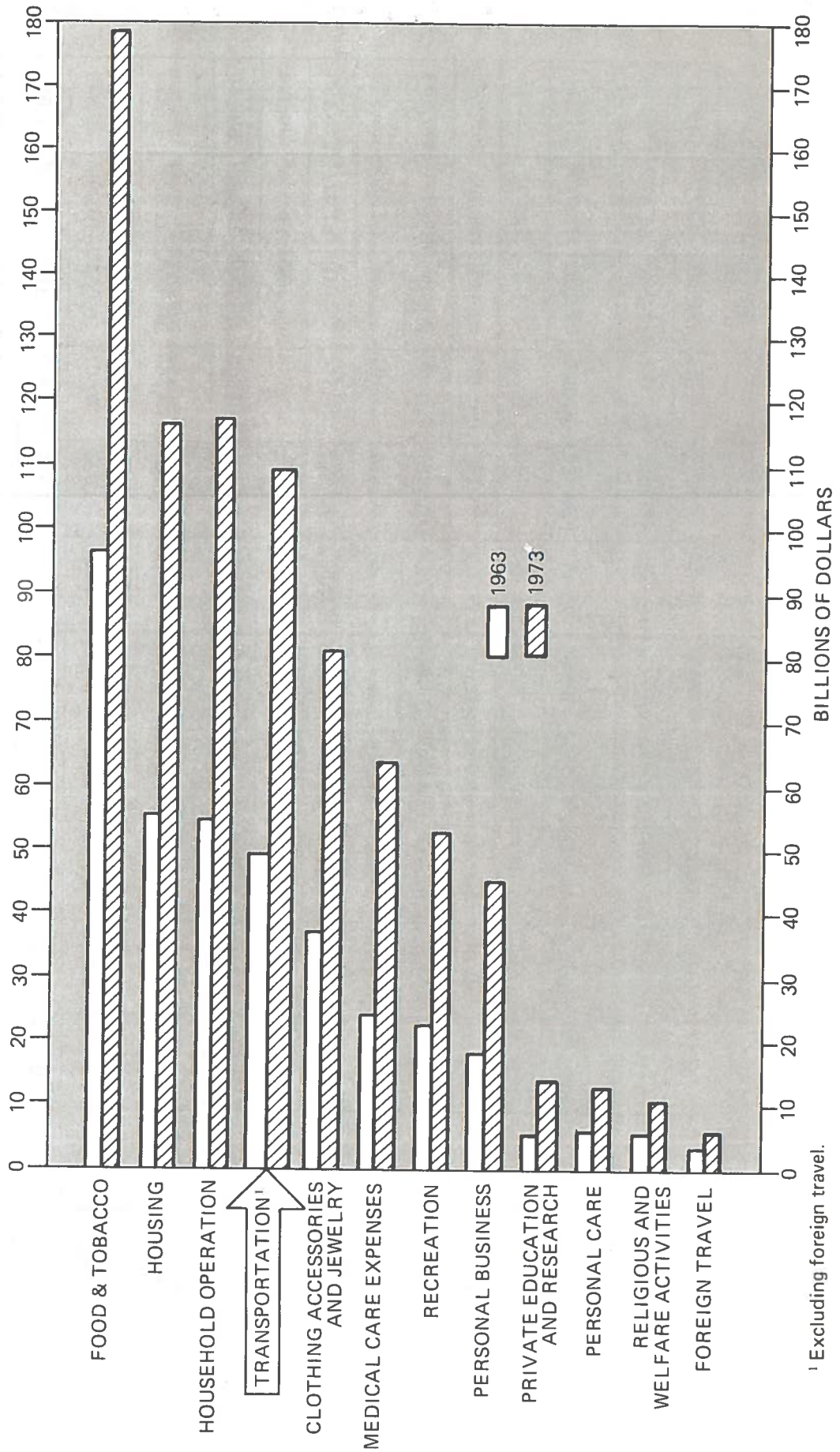
<sup>2</sup> Excluding foreign travel

<sup>3</sup> Figures in the 1971-72 columns are all revised.

<sup>†</sup> Revised

Sources: See page 138.

Personal Consumption Expenditures by Type of Product, 1963 - 1973



<sup>1</sup> Excluding foreign travel.

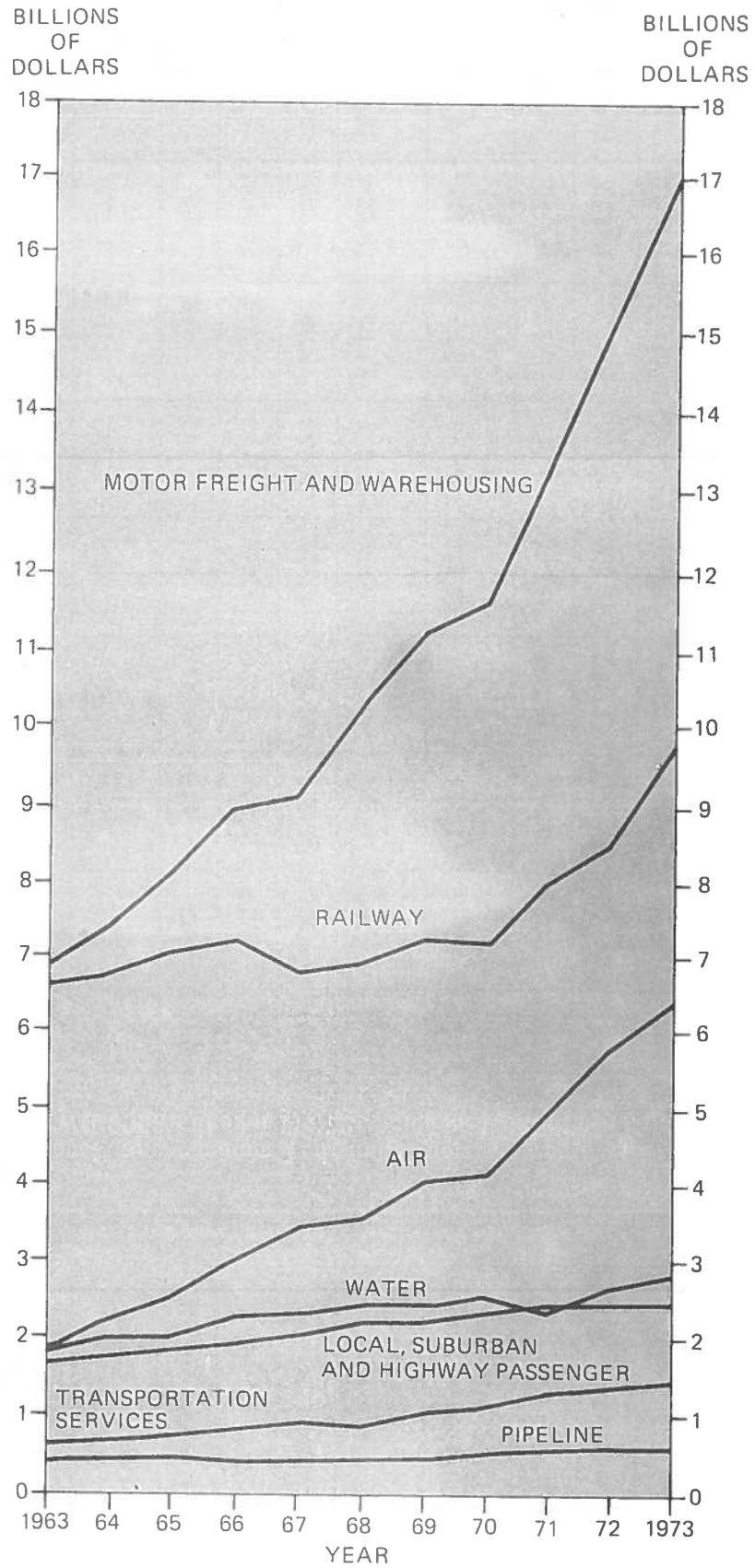
Table 12. National Income by Transportation Sector, 1963 - 1973  
(Millions of Dollars)

	1963	1964	1965	1966	1967	1968	1969	1970	1971 <sup>1</sup>	1972 <sup>1</sup>	1973
Total	20,025	21,372	22,926	24,853	25,223	26,909	28,739	29,824	32,775	36,592	40,381
Railway	6,634	6,795	7,084	7,327	6,821	6,992	7,351	7,358	8,016	8,581	9,587
Local, suburban, and highway passenger	1,716	1,771	1,857	1,951	2,049	2,210	2,163	2,285	2,411	2,469	2,522
Motor freight and warehousing	6,913	7,463	8,185	8,998	9,178	10,326	11,211	11,632	13,329	15,280	17,060
Water	1,815	2,001	2,010	2,274	2,320	2,476	2,392	2,502	2,328	2,453	2,705
Air	1,881	2,229	2,574	3,027	3,456	3,556	4,120	4,374	4,968	5,828	6,343
Pipeline	426	429	454	412	423	414	447	518	546	635	695
Transportation services	640	684	754	864	976	935	1,055	1,155	1,177	1,346	1,469

<sup>1</sup> Figures in the 1971-72 columns are all revised.

Sources: See page 138.

### National Income by Transportation Sector, 1963 - 1973



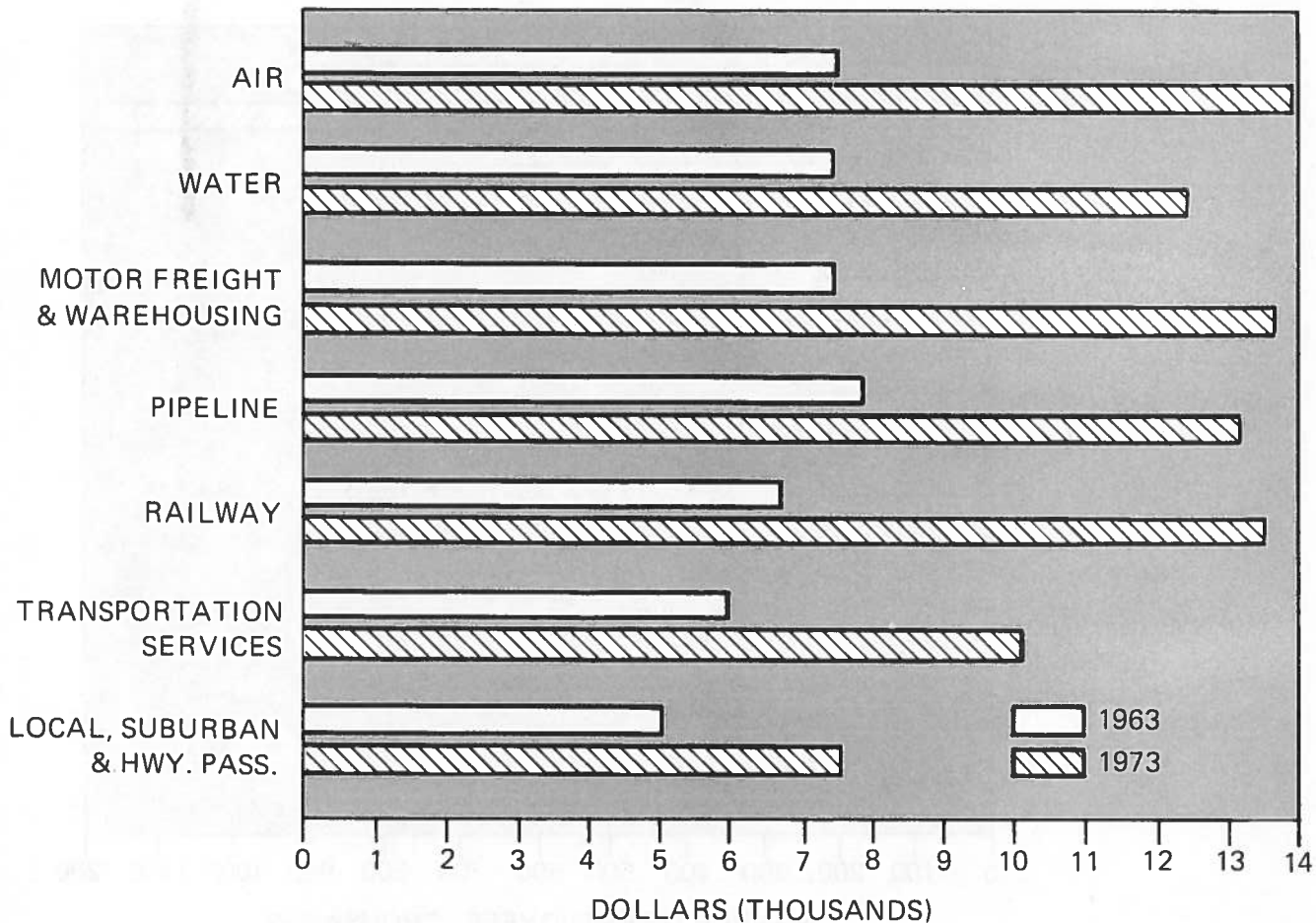
**Table 13. Average Annual Earnings Per Full-Time Employees by Transportation Sector, 1963 - 1973 (Dollars)**

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Total	6,852	7,161	7,473	7,785	8,129	8,676	9,321	9,988	10,918 <sup>r</sup>	11,738 <sup>r</sup>	12,740
Railway	6,762	7,026	7,407	7,660	8,034	8,585	9,230	10,013	11,208 <sup>r</sup>	11,824 <sup>r</sup>	13,526
Local, suburban, and highway passenger	5,120	5,281	5,436	5,615	5,801	6,101	6,296	6,596	6,909 <sup>r</sup>	7,190 <sup>r</sup>	7,538
Motor freight and warehousing	7,328	7,719	8,030	8,362	8,672	9,287	9,906	10,430	11,587 <sup>r</sup>	12,649 <sup>r</sup>	13,594
Water	7,317	7,507	7,770	8,310	8,619	9,120	9,990	10,662	10,994 <sup>r</sup>	11,530 <sup>r</sup>	12,292
Air	7,443	7,869	8,122	8,363	8,846	9,363	10,270	11,407	12,294	13,261 <sup>r</sup>	13,936
Pipeline	7,800	8,105	8,053	8,667	8,778	9,222	9,722	10,706	11,412	11,882 <sup>r</sup>	13,063
Transportation services	6,078	6,288	6,518	6,761	7,120	7,570	8,020	8,608	9,029	9,627 <sup>r</sup>	10,131

<sup>r</sup> revised

Sources: See page 138.

**Average Annual Earnings Per Full-Time Employees by Transportation Sector, 1963 - 1973**



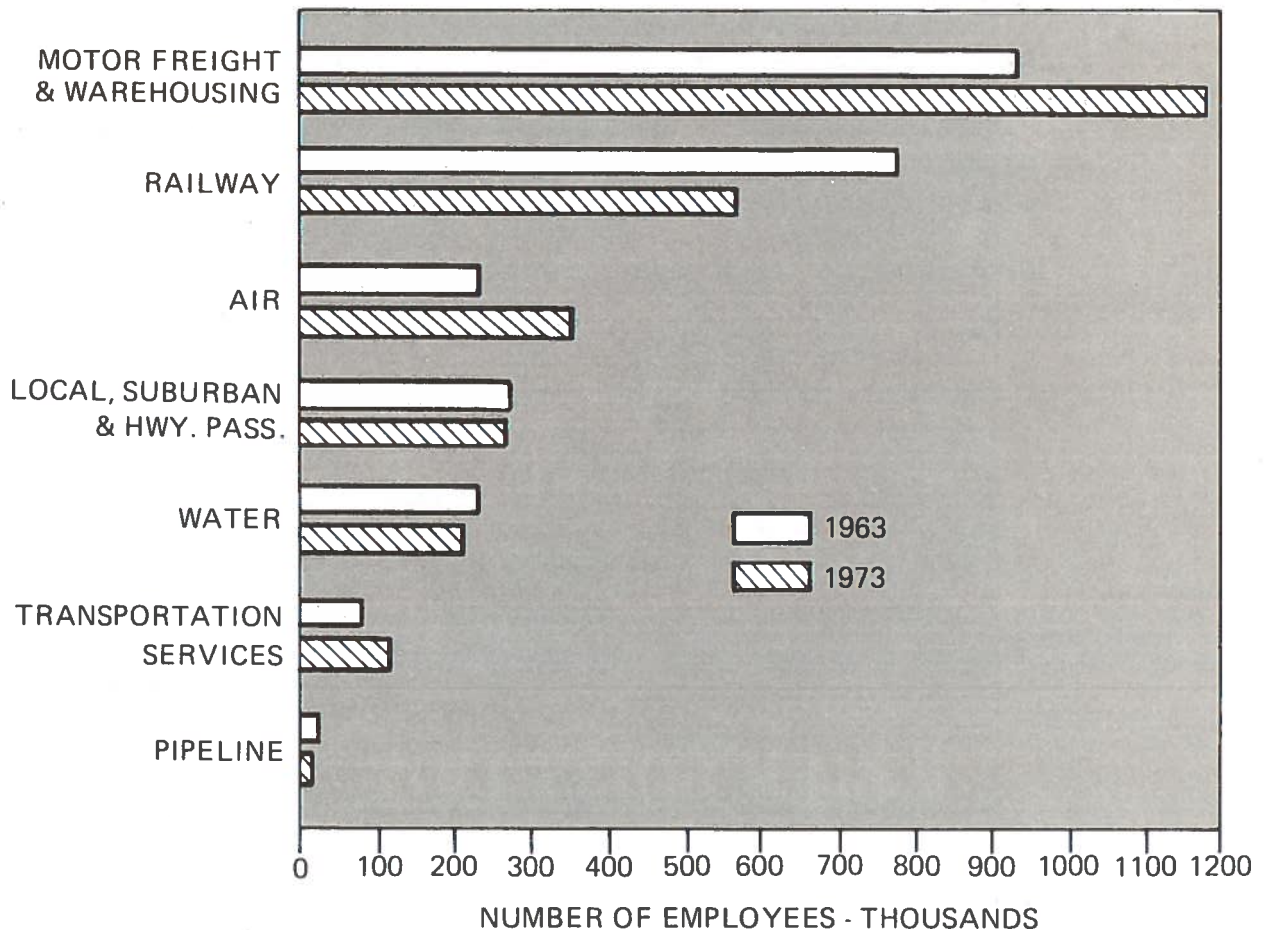
**Table 14. Average Annual Number of Full-Time and Part-Time Employees by Transportation Sector, 1963 - 1973 (Thousands)**

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Total	2,470	2,494	2,537	2,614	2,656	2,694	2,725	2,688	2,635 <sup>r</sup>	2,645 <sup>r</sup>	2,691
Railway	770	755	738	724	696	667	643	626	597	575	565
Local, suburban, and highway passenger	270	268	269	272	279	280	280	280	277	265 <sup>r</sup>	265
Motor freight and warehousing	902	921	965	1,008	1,021	1,055	1,093	1,079	1,089 <sup>r</sup>	1,126 <sup>r</sup>	1,170
Water	221	230	226	240	242	241	227	220	200	203	201
Air	203	213	229	256	299	331	356	354	343	348 <sup>r</sup>	357
Pipeline	20	19	19	18	18	18	18	17	17	17	16
Services	84	88	91	96	101	102	108	112	112	111 <sup>r</sup>	117

<sup>r</sup> revised

Sources: See page 138.

**Average Annual Number of Full-Time and Part-Time Employees by Transportation Sector, 1963 - 1973**





**Table 15. Wages and Salaries by Transportation Sector, 1963 - 1973**  
(Millions of Dollars)

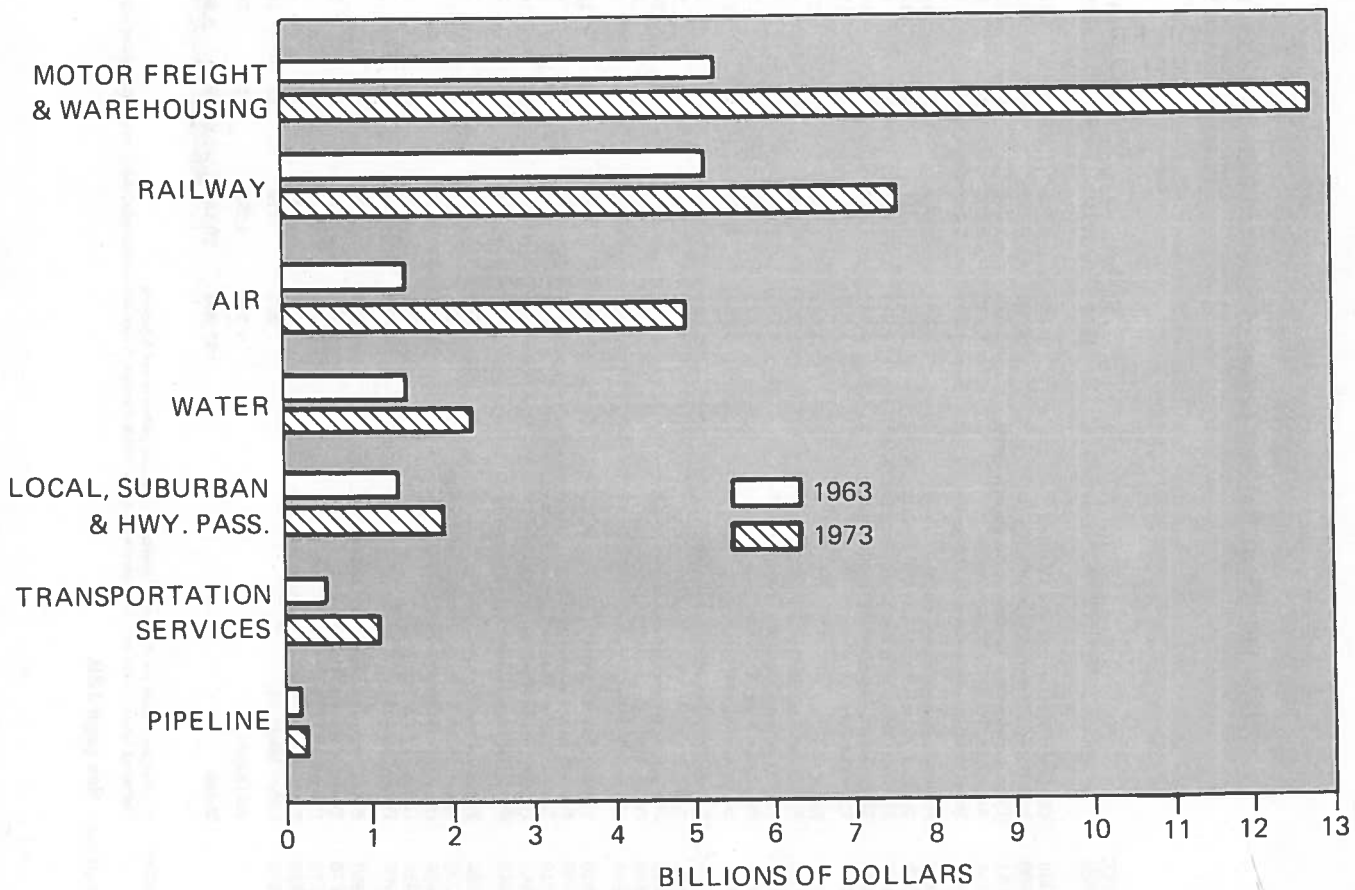
	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972 <sup>1</sup>	1973
Total	15,417	16,248	17,217	18,458	19,574	21,160	22,977	24,270	25,953 r	27,949 r	30,856
Railway	5,207	5,305	5,466	5,546	5,592	5,726	5,935	6,268	6,691 r	6,799 r	7,642
Local, suburban, and highway passenger	1,321	1,352	1,397	1,460	1,543	1,629	1,681	1,761	1,824 r	1,819 r	1,907
Motor freight and warehousing	5,298	5,702	6,215	6,765	7,102	7,857	8,688	9,032	10,127 r	11,422 r	12,765
Water	1,456	1,554	1,585	1,795	1,879	1,979	2,048	2,111 r	1,979 r	2,110 r	2,274
Air	1,511	1,676	1,860	2,141	2,645	3,099	3,656	4,038	4,217	4,615 r	4,975
Pipeline	156	154	153	156	158	166	175	182	194	202 r	209
Services	468	503	541	595	655	704	794	878	921	982 r	1,084

<sup>1</sup> All figures in 1972 column are revised.

r revised

Sources: See page 139.

**Wages and Salaries by Transportation Sector, 1963 - 1973**





**SUPPLEMENTARY DATA**  
**Part 2: Transportation, Energy,**  
**and the Environment**



Table 17. Fuel Consumption by Mode, 1963 - 1973

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
<b>Class I Railroads</b>											
<b>Locomotives</b>											
Diesel Oil, gals × 10 <sup>6</sup>	3,537	3,624	3,736	3,920	3,883	3,917	3,919	3,804	3,819	3,999	4,141
Fuel Oil, gals × 10 <sup>6</sup>	90	85	77	65	47	42	33	—	—	—	—
Electricity, KWH × 10 <sup>6</sup>	1,018	931	933	922	832	750	610	578	534	608 <sup>r</sup>	346
Coal, tons	7,332	6,831	3,695	3,235	2,310	1,669	1,137	1,238	1,191	1,400	1,202
<b>Motor Cars</b>											
Diesel Oil, gals × 10 <sup>6</sup>	7	7	6	6	6	5	5	8	4	3	3
Electricity, KWH × 10 <sup>6</sup>	591	583	576	576	580	567	538	763	756	715	901
Gasoline, gals	7,591	4,585	—	—	—	—	—	—	—	—	—
<b>Air</b>											
<b>Certificated Carriers</b>											
Aviation Gasoline, gals × 10 <sup>6</sup>	651	589	519	398	268	128	33	15	12	13	11
Jet Fuel, gals × 10 <sup>6</sup>	3,291	3,830	4,650	5,670	7,523	8,891	10,113	10,085	10,140	10,302	10,671
<b>General Aviation</b>											
Aviation Gasoline, gals × 10 <sup>6</sup>	250	262	292	375	396	495	522	551	508	584	n/a
Jet Fuel, gals × 10 <sup>6</sup>	32	41	81	106	138	n/a	168	208	226	245	n/a
<b>Highway</b>											
<b>Gasoline, gals × 10<sup>6</sup></b>											
Pass. Cars + Taxis	45,246*	47,567*	50,206	53,220	55,007	58,413	62,325	65,649	69,213	73,121	77,619
Motorcycles	—	—	69	92	103	111	123	135	301	342	392
<b>Diesel + Gasoline, gals × 10<sup>6</sup></b>											
Commercial Buses	606	622	645	637	646	655	657	644	631	561	520
School Buses	232	242	249	259	264	277	290	300	316	320	327
Single-unit Trucks <sup>1</sup>	12,348	13,199	13,504	13,636	14,470	15,674	16,528	17,237	18,221	22,118	22,755
Combination Trucks	6,084	6,271	6,431	6,779	7,203	7,808	8,199	8,363	8,865	8,600	8,860
<b>Water</b>											
<b>Vessels<sup>2</sup></b>											
Residual Fuel Oil, gals × 10 <sup>6</sup>	3,213	3,487	3,093	3,093	3,389	3,678	3,506	3,774	3,307	3,273	3,859
Distillate Fuel Oil, gals × 10 <sup>6</sup>	636	672	652	699	734	766	793	819	880	929	1,125
Gasoline, gals × 10 <sup>6</sup>	n/a	n/a	n/a	485	501	533	569	598	645	687	717
<b>Transit</b>											
<b>Electricity, KWH × 10<sup>6</sup></b>											
Rapid Transit	2,125	2,171	2,185	2,075	2,194	2,250	2,291	2,261	2,262	2,149	2,098
Surface Rail	255	222	218	226	180	179	173	157	153	146	140
Trolley	262	204	181	166	157	157	154	143	141	133	93
<b>Gallons of Motor Fuel, gals. × 10<sup>6</sup></b>											
Gasoline	103	96	92	76	58	46	40	37	29	26	22
Diesel Oil	235	242	248	256	270	274	274	271	257	247	273
Propane	36	33	33	34	33	32	32	31	27	24	15
<b>Pipelines (Gas &amp; Oil)</b>											
Natural Gas Cu. Ft. × 10 <sup>6</sup>	423,783	433,204	500,024	535,353	575,752	590,965	630,962	722,166	742,592	766,156	728,177

<sup>1</sup> Includes non-freight truck movements.

<sup>2</sup> Vessel bunkering (including tankers).

\* Includes motorcycles.

<sup>r</sup> revised

n/a = not available

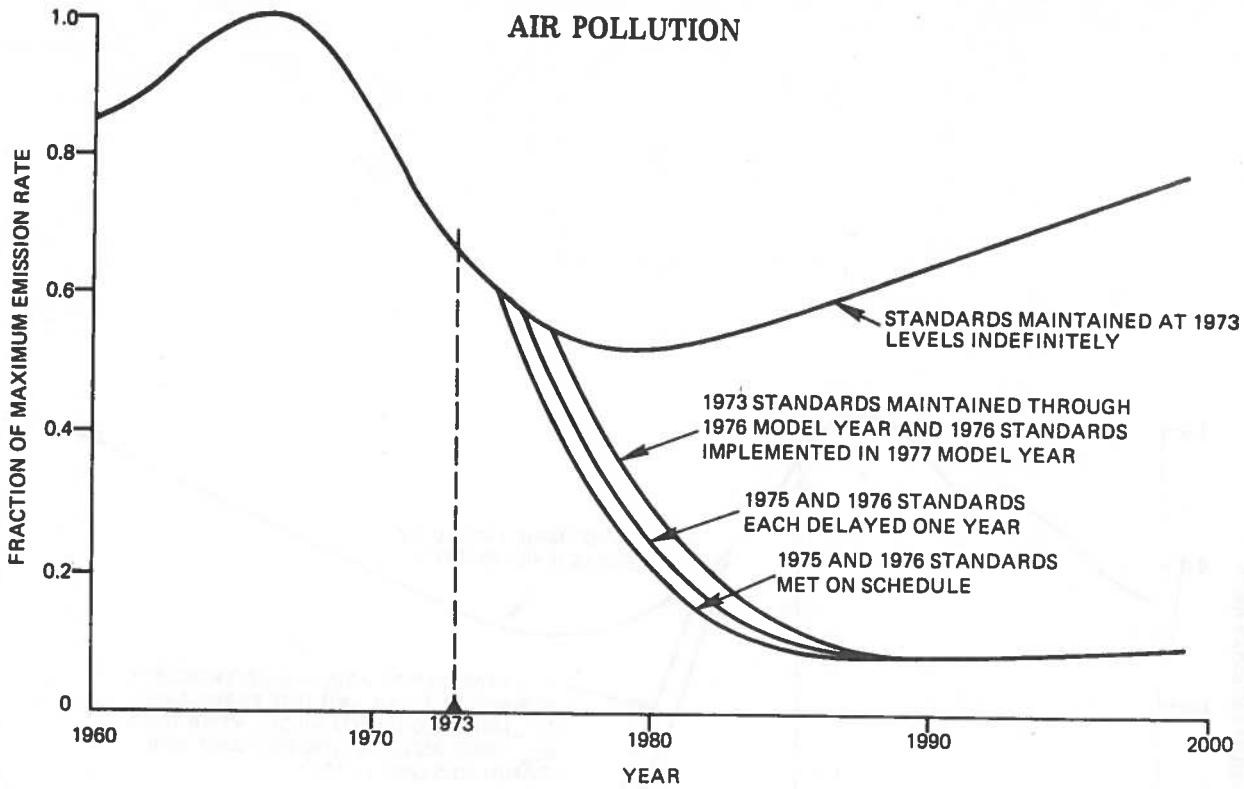
Sources: See page 139.



# **AIR POLLUTION**

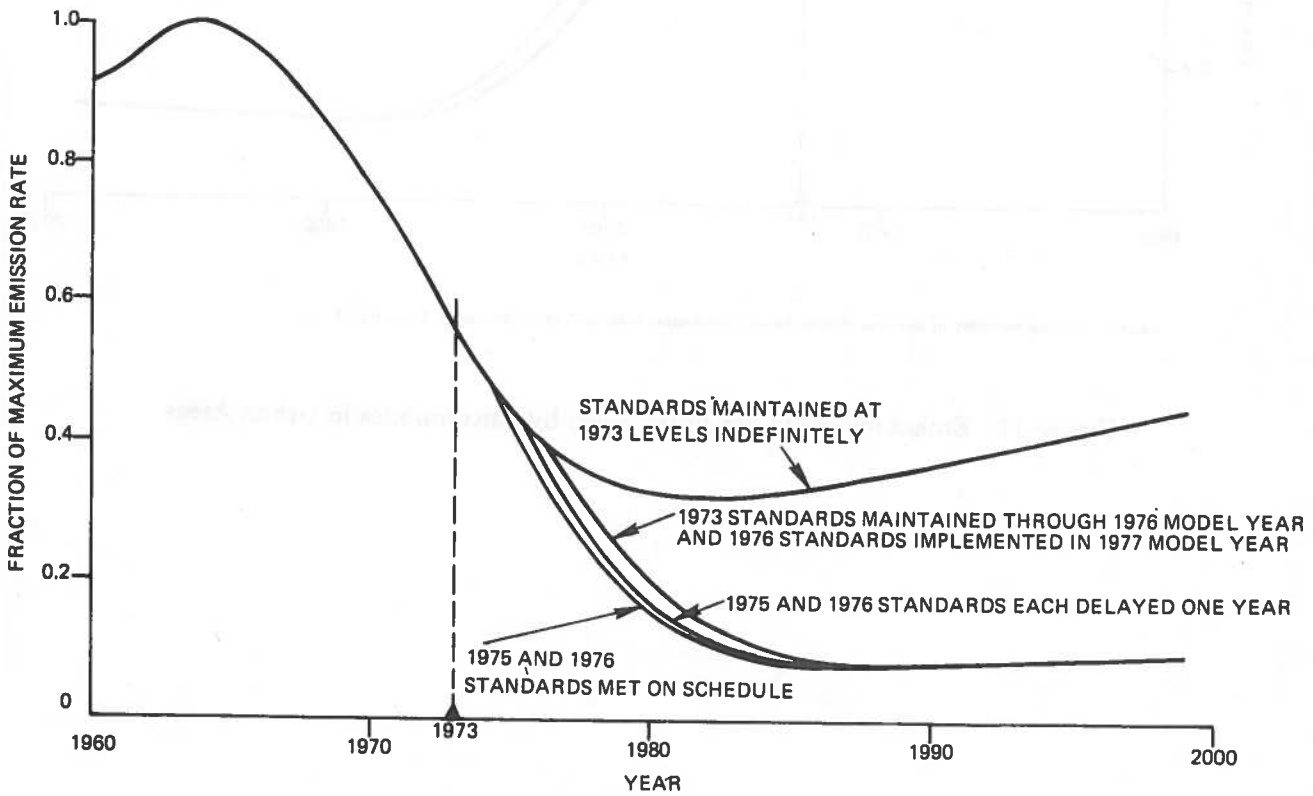






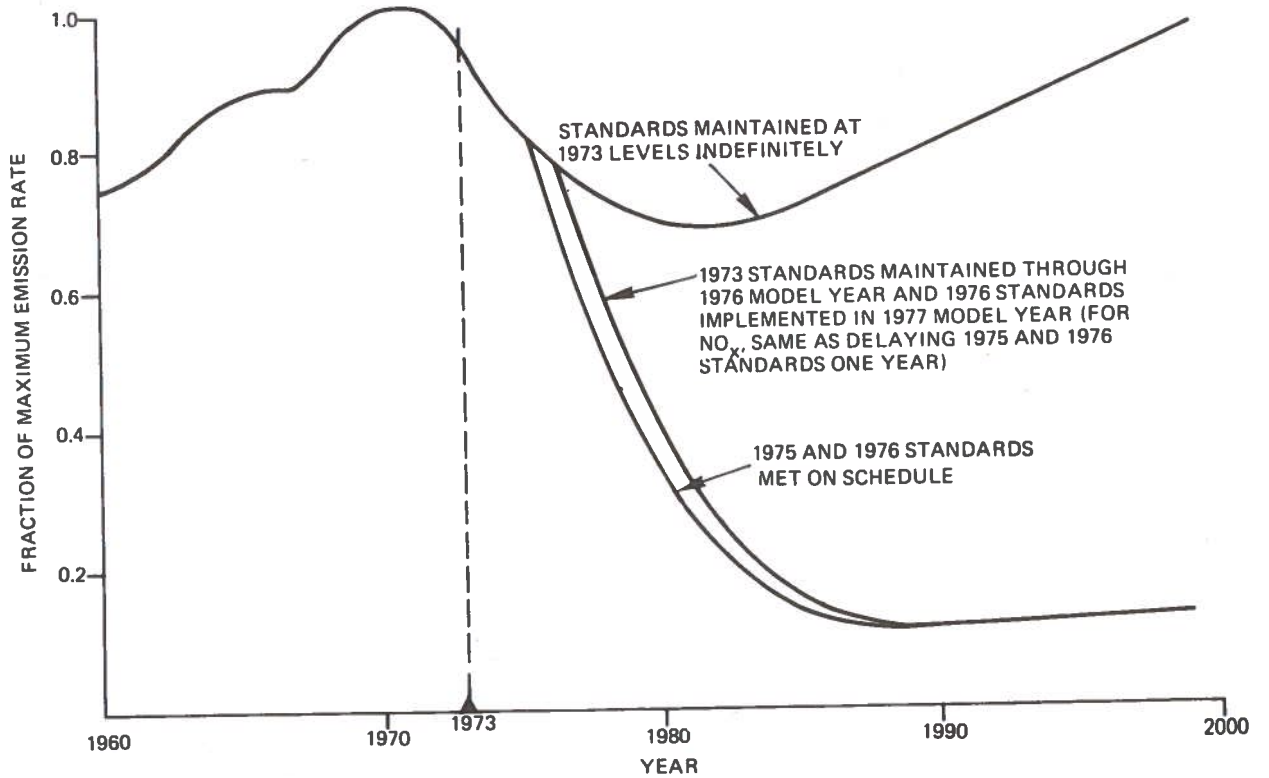
Source: National Academy of Sciences, Report by the Committee on Motor Vehicle Emissions, February 15, 1973

**Figure 9. Emissions of Carbon Monoxide by Automobiles in Urban Areas**



Source: National Academy of Sciences, Report by the Committee on Motor Vehicle Emission, February 15, 1973

**Figure 10. Emissions of Hydrocarbons by Automobiles in Urban Areas**



Source: National Academy of Sciences, *Report by the Committee on Motor Vehicle Emissions*, February 15, 1973

**Figure 11. Emissions of Oxides of Nitrogen by Automobiles in Urban Areas**

Table 18. National Emission Data

NATIONWIDE EMISSIONS REPORT  
UNITED STATES

EMISSIONS AS OF: MARCH 12, 1975

Transportation (Area)	Particulates Tons/Yr	SO <sub>x</sub> Tons/Yr	NO <sub>x</sub> Tons/Yr	HC Tons/Yr	CO Tons/Yr
<b>Land Vehicles</b>					
<b>Gasoline</b>					
Light Vehicles	666,245	172,730	5,669,342	8,834,758	52,789,926
Heavy Vehicles	65,654	24,879	706,630	1,835,126	10,304,437
Off Highway	19,935	10,433	227,300	640,911	7,266,141
Total (Gasoline)	751,834	209,043	6,603,272	11,310,795	70,360,504
<b>Diesel</b>					
Heavy Vehicles	83,754	118,655	1,074,240	134,723	610,096
Off Highway	49,812	44,576	551,967	60,432	155,568
Rail	57,231	130,486	847,015	215,188	297,600
Total (Diesel)	191,796	293,717	2,473,222	410,343	1,063,263
<b>Aircraft</b>					
Military	154,806	29,561	74,369	360,177	386,626
Civil	10,266	2,039	9,273	45,465	259,800
Commercial	5,568	8,043	77,957	102,397	211,289
Total (Aircraft)	170,640	39,643	161,600	508,038	857,716
<b>Vessels</b>					
Bituminous Coal	1,273	3,183	191	1,273	5,729
Diesel Fuel	18,459	23,074	172,284	45,225	60,299
Residual Oil	4,973	73,692	10,770	747	361
Gasoline	0	2,136	9,290	315,644	1,003,551
Total (Vessels)	24,705	102,085	192,535	362,889	1,069,940
Gas Handling, Evap. Loss	0	0	0	1,194,082	0
<b>Total (Transportation)</b>	<b>1,138,975</b>	<b>643,999</b>	<b>9,430,630</b>	<b>13,786,146</b>	<b>73,351,424</b>

Source: Environmental Protection Agency, National Air Quality Branch

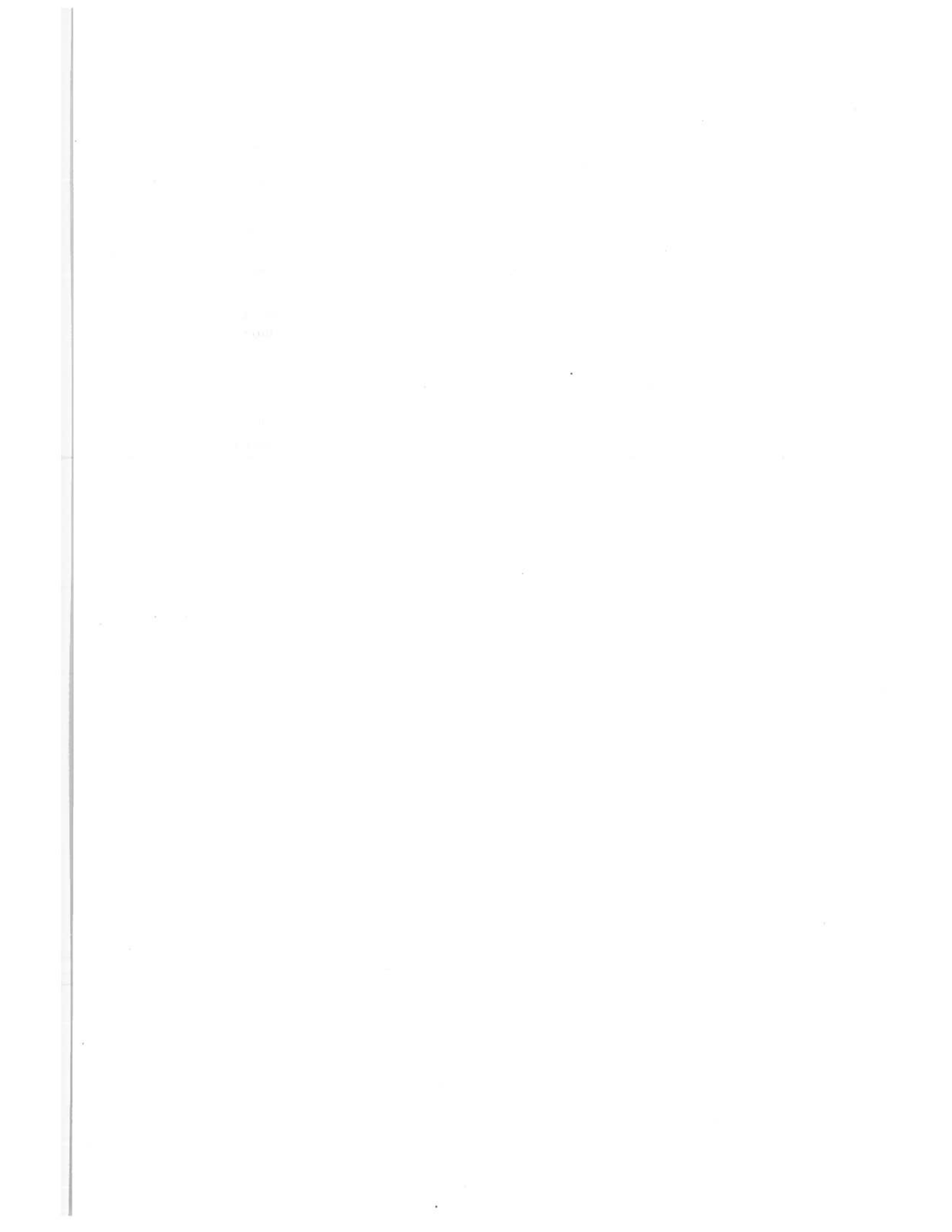
Table 19. Air Pollutant Emissions: 1970 and 1971  
(Quantity in millions of tons per year. Estimate)

SOURCE CATEGORY	1970	1971					
	Total	Total	Carbon monoxide	Sulfur oxides	Hydrocarbons	Particulates	Nitrogen oxides
Total quantity	209.0	208.3	100.2	32.6	26.6	26.9	22.0
Total controllable	198.3	193.5	95.3	32.5	21.9	22.0	21.8
Transportation	106.2	105.4	77.5	1.0	14.7	1.0	11.2
Road vehicles	84.6	83.9	63.1	0.3	11.5	0.8	8.2
Fuel combustion (stationary)	44.9	44.3	1.0	26.3	0.3	6.5	10.2
Electric utilities	24.8	29.5	0.2	20.1	0.1	3.7	5.4
Industrial processes	36.5	35.8	11.4	5.1	5.6	13.5	0.2
Agricultural burning	2.2	2.2	1.6	—	0.3	0.3	—
Solid waste disposal	8.5	5.8	3.8	0.1	1.0	0.7	0.2
Miscellaneous, uncontrollable	10.7	14.8	4.9	0.1	4.7	4.9	0.2
Percent of total by source	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Transportation	50.8	50.6	77.3	3.1	55.3	3.7	50.9
Road vehicles	40.5	40.3	63.0	1.0	3.2	3.0	37.3
Fuel combustion (stationary)	21.5	21.3	1.0	80.7	1.1	24.2	46.4
Electric utilities	1.9	14.2	0.2	61.6	0.4	13.8	24.5
Industrial processes	17.5	17.2	11.4	15.6	21.0	50.2	0.9
Agricultural burning	1.0	1.0	1.6	—	1.1	1.1	—
Solid waste disposal	4.1	2.8	3.8	0.3	3.8	2.6	0.9
Miscellaneous	5.1	7.1	4.9	0.3	17.7	18.2	0.9
Percent of total by pollutant	(X)	100	48.1	15.6	12.8	12.9	10.6
Transportation	(X)	100	73.5	1.0	13.9	1.0	10.6
Road vehicles	(X)	100	75.2	0.4	13.7	0.9	9.8
Fuel combustion (stationary)	(X)	100	2.2	59.4	0.7	14.7	23.0
Electric utilities	(X)	100	0.7	68.1	0.3	12.6	18.3
Industrial processes	(X)	100	31.8	14.3	15.6	37.7	0.6
Agricultural burning	(X)	100	72.8	—	13.6	13.6	—
Solid waste disposal	(X)	100	65.5	1.7	17.2	12.1	3.5
Miscellaneous	(X)	100	33.1	0.7	31.8	33.1	1.3

— Represents zero. X - Not applicable.

Source: Statistical Abstract of the United States, 1974, 95th Annual Edition, U. S. Dept. of Commerce, Bureau of Census

# WATER POLLUTION



## WATER POLLUTION

Tables 20-22 pertain to 59 polluting incidents resulting from oil tanker casualties which occurred in calendar year 1973 involving tankers larger than 3000 DWT.

Table 20 shows the frequency and magnitude of these incidents for the following selected geographical areas:

- Northwest Atlantic Ocean (North of the Tropic of Cancer, between 30° West and the East Coast of the U.S. and Canada);
- Northeast Atlantic Ocean (North of the Tropic of Cancer, between 30° West and the West Coast of Europe including the Denmark Strait and Greenland Sea);
- Northwest Pacific Ocean (North of the Tropic of Cancer, and between the 180th meridian and the Coast of Asia including the sea of Okhotsk, the Sea of Japan and the Yellow Sea);
- The Mediterranean Sea; and
- The Indian Ocean

These data simply state that at least on a macroscopic view, tanker accidents and oil outflow are a direct function of tanker traffic density; i.e., the accidents occur where the tanker traffic is the densest.

**Table 20. Geographical Distribution of the Frequency and Magnitude of 59 Tanker-Polluting Incidents, 1973 (Tankers > 3000 DWT)**

	Number of Incidents	Total Outflow
Northwest Atlantic Ocean	11	24,957
Northeast Atlantic Ocean	12	29,632
Northwest Pacific Ocean	3	850
Mediterranean Sea	5	1,278
Indian Ocean	11	22,852
Subtotal	43	79,569
All other geographical locations	16	44,486
<b>Total</b>	<b>59</b>	<b>124,055 long tons</b>

Source: U.S. Coast Guard—Personal Communication.

Table 21 shows the 59 incidents and associated outflows on an area basis.

Areas are defined as follows:

- Coastal — within 50 nautical miles of any shoreline;
- Entranceway — entrance to a harbor, bay, river, etc.;
- Harbor — within the confines of harbors, bays, rivers, etc.;
- Pier — at a wharf, pier, dock, quay, etc. with tanker physically moored thereto; and
- Sea — more than 50 nautical miles from any shoreline.

Table 21 also shows that 49 incidents with an attendant outflow of 81,741 long tons occurred within 50 miles of a shoreline. It also shows that 20 incidents with an attendant outflow of 5,678 long tons occurred either at the pier or within the confines of a harbor.

**Table 21. Area Location and Outflows of the 59 Tanker-Polluting Incidents, 1973  
(Tankers > 3,000 DWT)**

Area	Number of Incidents	Amount of Outflow
Coastal	21	70,104
Entranceway	8	5,959
Harbor	17	5,336
Pier	3	342
Sea	9	41,364
Unknown	1	950
<b>Total</b>	<b>59</b>	<b>124,055 long tons</b>

Source: U.S. Coast Guard—Personal Communication



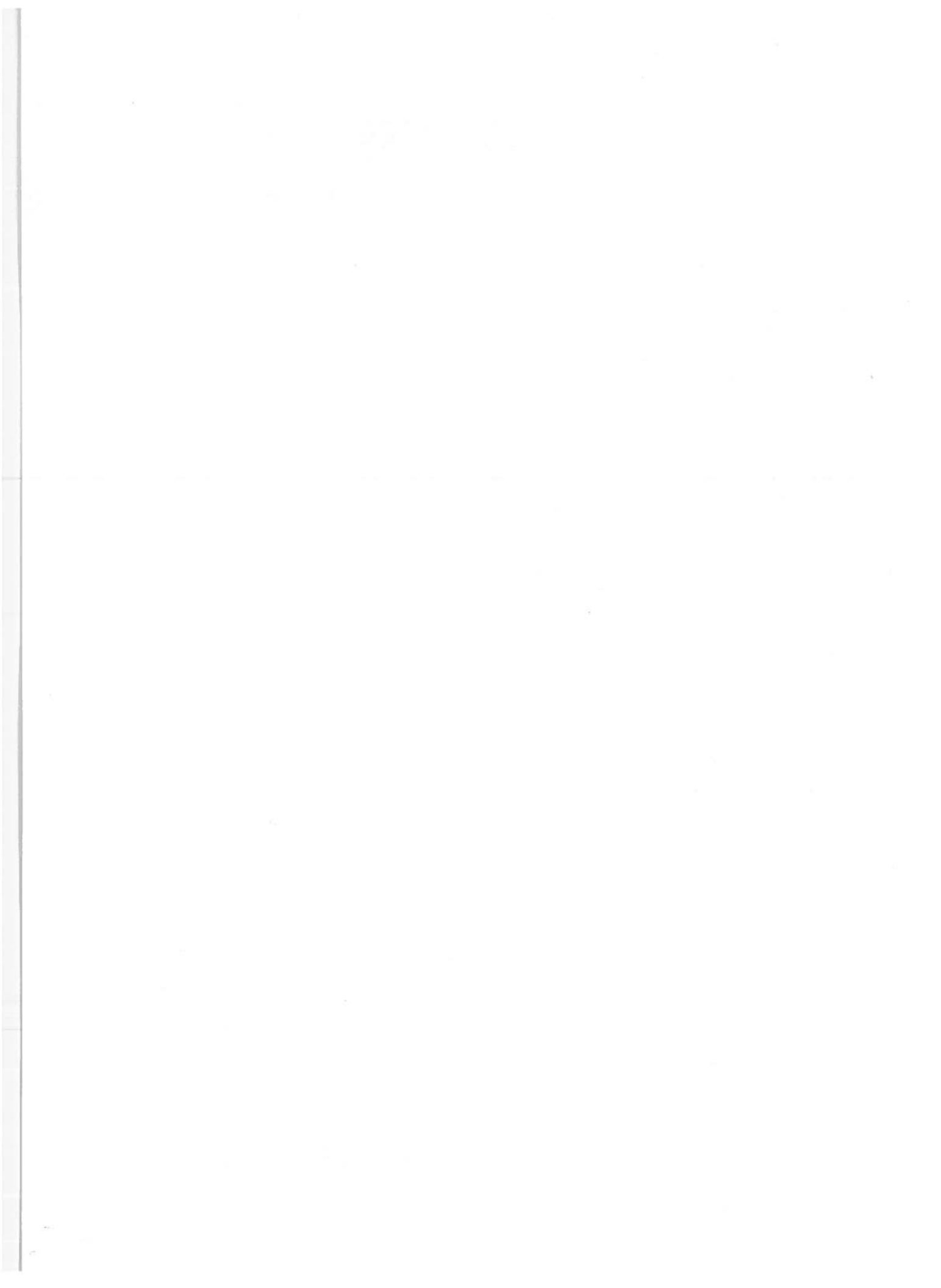
Table 22 shows on an individual basis, the frequency and magnitude of a different type of casualties. For example, in the coastal area, 15 incidents out of 21 are either groundings or collisions and account for 49,830 long tons of outflow. Other important points to note are as follows:

- In the harbors, 2 groundings had an outflow of 3,200 long tons out of a total of 5,336 long tons spilled;
- At sea, the 4 structural failures accounted for 21,153 long tons of outflow.

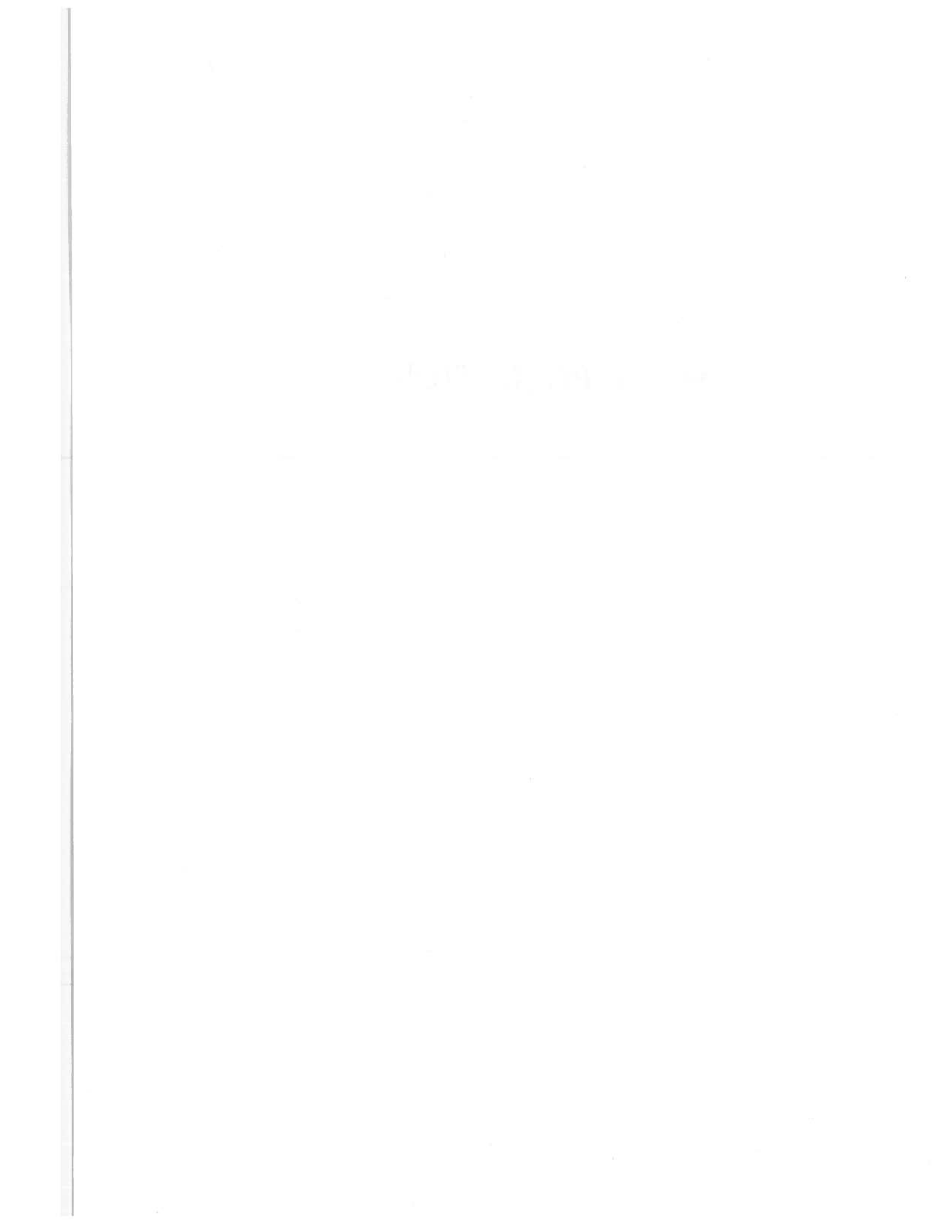
Table 22. Outflows of 59 Tanker-Polluting Incidents Shown by Type of Casualty and Area Locations, 1973 (Tankers > 3,000 DWT)

Type of Casualty	COASTAL No. Outflow	ENTRANCE No. Outflow	HARBOR No. Outflow	PIER No. Outflow	SEA No. Outflow	UNKNOWN No. Outflow	TOTAL No. Outflow
Breakdown	1 13,000	1 408	0 0	0 0	0 0	0 0	2 13,408
Collision	7 1,997	1 300	9 1,681	0 0	2 205	0 0	19 4,183
Explosion	1 3,231	0 0	1 1	0 0	3 20,006	0 0	5 23,238
Fire	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Grounding	8 47,833	5 5,180	2 3,200	1 340	0 0	0 0	16 56,553
Ramming	3 4,001	1 71	2 451	1 1	0 0	1 950	8 5,474
Structural Failure	1 42	0 0	3 3	1 1	4 21,153	0 0	9 21,199
Capsizing	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Column Totals	21 70,104	8 5,959	17 5,336	3 342	9 41,364	1 950	59 124,055

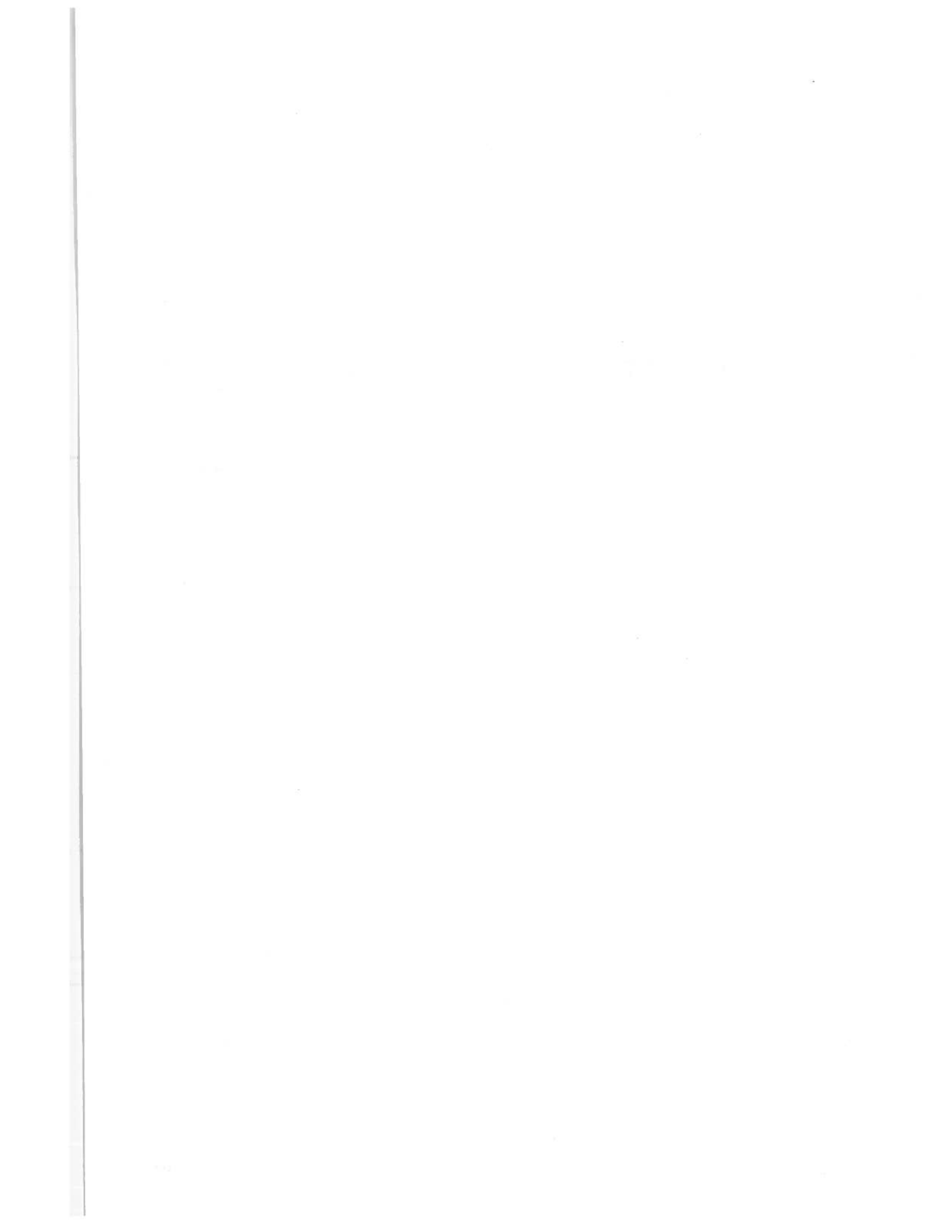
Source: U.S. Coast Guard—Personal Communication



# **NOISE POLLUTION**



# **General Transportation Noise**

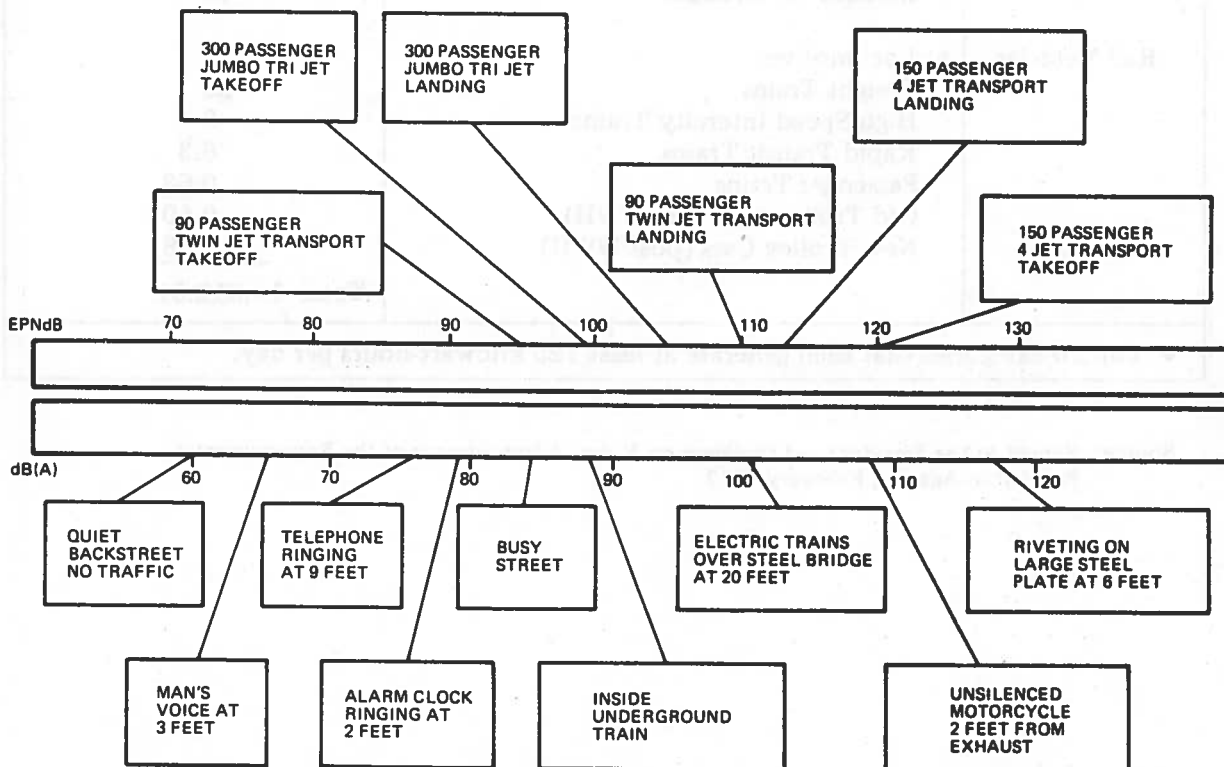


## NOISE SOURCES AND THE dB SCALE

Noise sources are governed by many factors, such as: (a) the design, construction, maintenance, and manner of operating a vehicle, and (b) the path that the sound waves travel to reach the observer (i.e., distance, obstructions, reflections off surfaces, etc.). Typical values of noise levels from some commonly occurring events are shown here to provide a familiarity with two widely used noise-measuring scales.

Sound levels are measured by a meter in units called decibels (dB). However, because of the complex way in which the human ear works, measurement of different noises does not always correspond to their relative loudness or annoyance. Different scales have been developed, therefore, to furnish guidance in evaluating the importance of different noise sources. Aircraft noise is evaluated in EPNdB, a unit which weighs the sound pressure of the various frequencies making up the noise and adds corrections for annoying tones and durations of such sounds. Another commonly used scale, called dB(A), is based on a different method of weighting and is widely accepted for surface modes of transportation. These two scales differ by nearly a constant (i.e.,  $EPNdB - dB(A) \approx 13dB$ ).

A 10-dB increase in sound level on either of these noise-level scales doubles the apparent loudness or annoyance of the sound. Conversely, a 10-dB decrease in sound level will halve the loudness of the sound, as adjudged by the hearer.



Note:  
 Approximate relation between EPNdB scale and dB(A) scale is shown in this comparison of various noise sources  
 Source: U.S. Department of Transportation, *Transportation Noise and Its Control*, June 1972

**Figure 12. Typical Noise Levels**

**Table 23. Noise Energy For Elements of the Transportation System**

Major Category		Noise Energy (Kilowatt-Hours/Day)
Aircraft	● 4-Engine Turbofan Aircraft	3,800
	● 2- and 3-Engine Turbofan Aircraft	730
	● General Aviation Aircraft	125
	Helicopters	25
Highway Vehicles	● Medium and Heavy Duty Trucks	5,000
	● Sports, Cars, Imports and Compacts	1,000
	● Passenger Cars (Standard)	800
	● Light Trucks and Pickups	500
	● Motorcycles	500
	City and School Buses	20
Recreational Vehicles	● Minicycles and Off-Road Motorcycles	800
	Snowmobiles	120
	Outboard Motorboats	100
	Inboard Motorboats	40
Rail Vehicles	● Locomotives	1,200
	Freight Trains	25
	High Speed Intercity Trains	8
	Rapid Transit Trains	6.3
	Passenger Trains	0.63
	Old Trolley Cars (pre WWII)	0.50
	New Trolley Cars (post WWII)	0.08
		<b>Total -14,812.51</b>
<ul style="list-style-type: none"> <li>● Top 10 categories that each generate at least 125 kilowatt-hours per day.</li> </ul>		

Source: *Report to the President and Congress on Noise*, Administrator of the Environmental Protection Agency, February 1972



**Table 24. Rank Ordering of Surface Transportation System According to A-Weighted Noise Level**

	Typical A-Weighted Noise Levels at 50 ft <sup>(1)</sup> dB re: 20 $\mu$ N/m <sup>2</sup>	Estimated Vehicle- Miles in Urban Areas Billions
<b>HIGHWAY</b>		
Medium and Heavy Trucks	84 (88)	19
Motorcycles	82 (88)	n/a
Garbage Trucks	82 (88)	0.5
Highway Buses	82 (86)	0.1
Automobiles (Sport, etc.)	75 (86)	21
City Buses	73 (85)	2.2
Light Trucks	72 (86)	77
Automobiles (Standard)	69 (84)	335
<b>RAIL</b>		
Freight and Passenger Trains	94	n/a
Rapid Transit	86	0.33
Trolley Cars*	80	0.03
Trolley Cars**	68	0.03
<b>RECREATIONAL VEHICLES</b>		
Off-Road Motorcycles	85	
Snowmobiles	85	
Inboard Motorboats	80	
Outboard Motorboats	80	

(1) Values inside parentheses are typical for maximum acceleration. All other values are for normal cruising speeds. Variations of 5 dB can be expected.

n/a Not available.

\*Pre-WWII

\*\*Post-WWII

Source: *Report to the President and Congress on Noise*, Administrator of the Environmental Protection Agency, February 1972.

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## **Aircraft Noise Levels**



## AIRCRAFT TAKEOFF AND LANDING NOISE

**Takeoff Noise on the Ground.** Aircraft use full power during takeoff and are therefore at their noisiest in this operation. Since the noise heard depends on both the intensity of sound at the source and the distance between the source and the listener, it is important for aircraft to reach sufficient altitude before crossing residential areas.

**Landing Noise on the Ground.** Aircraft engines produce less noise during landing because lower power is used. However, the noise that is generated is annoying because of the screech or whine characteristic that predominates during this operation. A gradual descent for a landing begins 5 to 10 miles away from the airport, and generally follows a 2.5 to 3-degree "glide-slope," resulting in constantly increasing noise levels on the ground as the aircraft comes closer to the airport.

### CURRENT AIRCRAFT NOISE LEVELS AT ESTABLISHED GROUND MEASURING POINTS

Figures 13, 14, and 15 show the noise levels of various jet transports, measured at prescribed points on the ground for prescribed aircraft operations, in accordance with the Federal Aviation Regulations, Part 36. They also show the noise level limits prescribed by the FAA for new aircraft. Takeoff noise levels were measured at a point 3.5 nautical miles from brake release along the extended centerline of the runway. Aircraft were operated with the power reduced prior to the measuring point to the minimum safe thrust that would maintain horizontal flight if one engine suddenly became inoperative. Landing approach noise levels were measured at a point one nautical mile from the threshold of the runway along the extended centerline of the runway with the aircraft on a stabilized three-degree angle of approach for landing. Maximum noise levels to the side of the takeoff path (also shown here) were also measured to describe the noise characteristics of aircraft. Such measurements are made at a point 0.25 nautical miles to the side of the takeoff path for two and three-engine aircraft and 0.35 nautical miles to the side of four-engine aircraft. The FAA sideline noise-level limits for new aircraft are the same as for approach requirements.

Note the improvement in the noise level of the DC-10 and L-1011 over the older aircraft. The newer planes are some 15 to 20 dB below equivalent weight older aircraft as a result of Government regulation.

Source: U.S. Department of Transportation, *Transportation Noise and Its Control*, June 1972

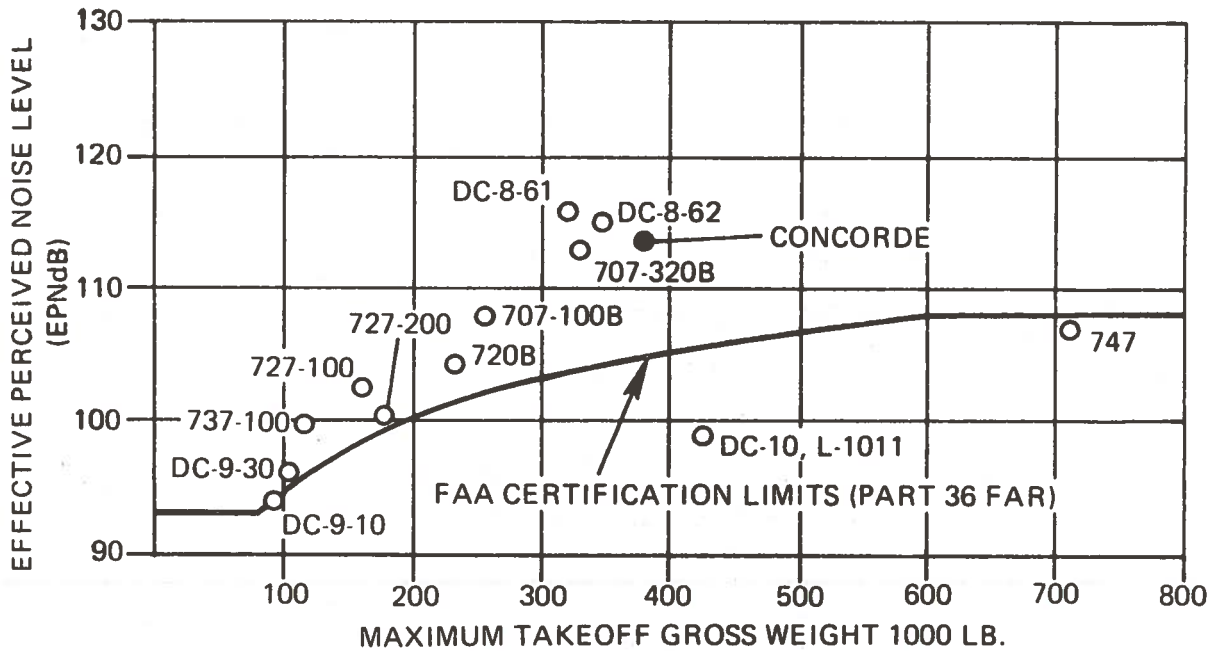


Figure 13. Aircraft-Takeoff Noise Levels 3.5 NM from Brake Release

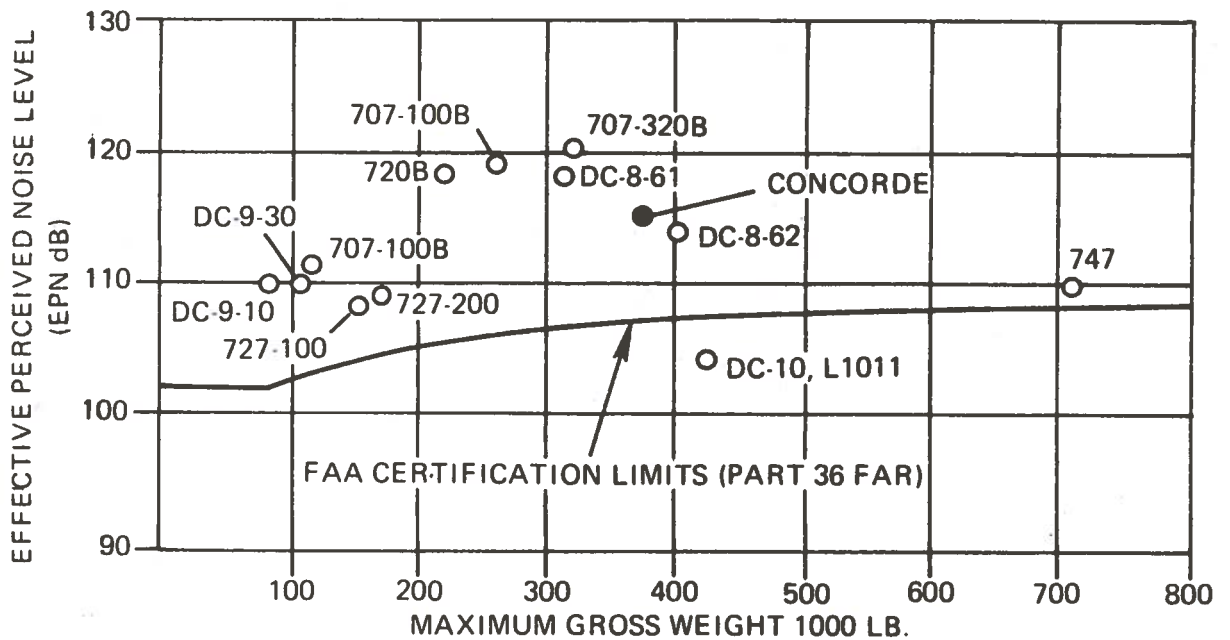
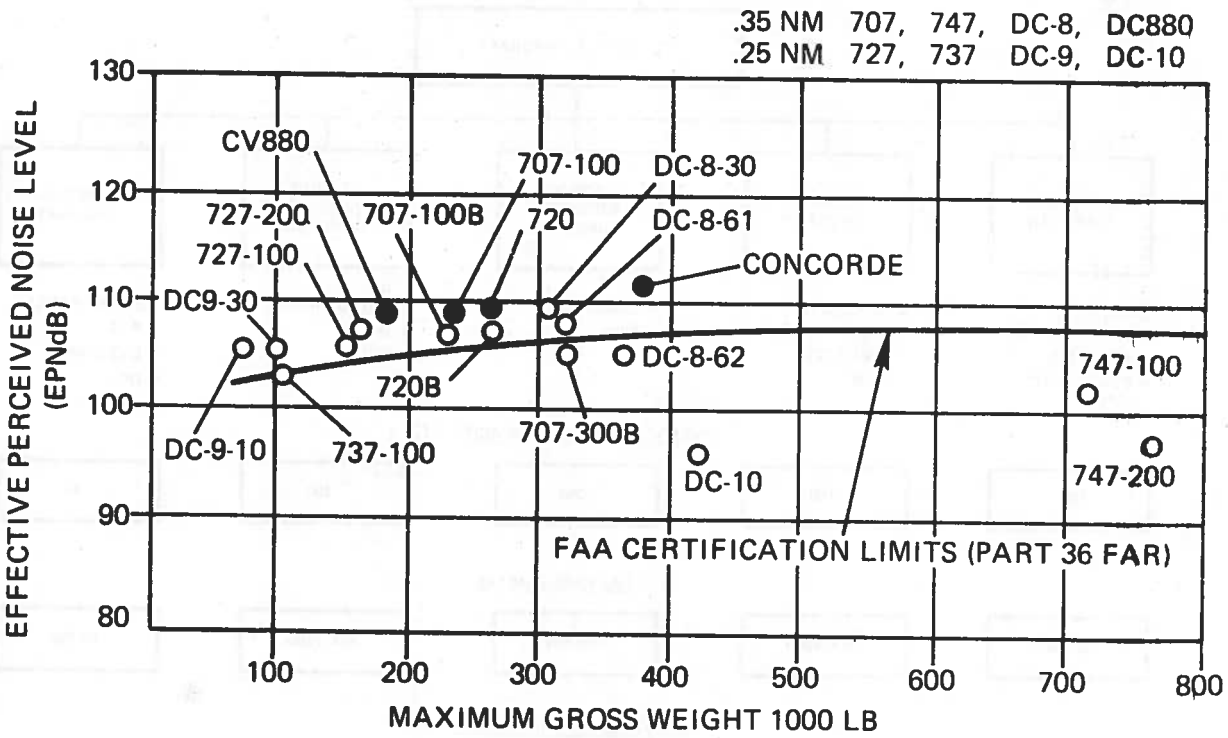


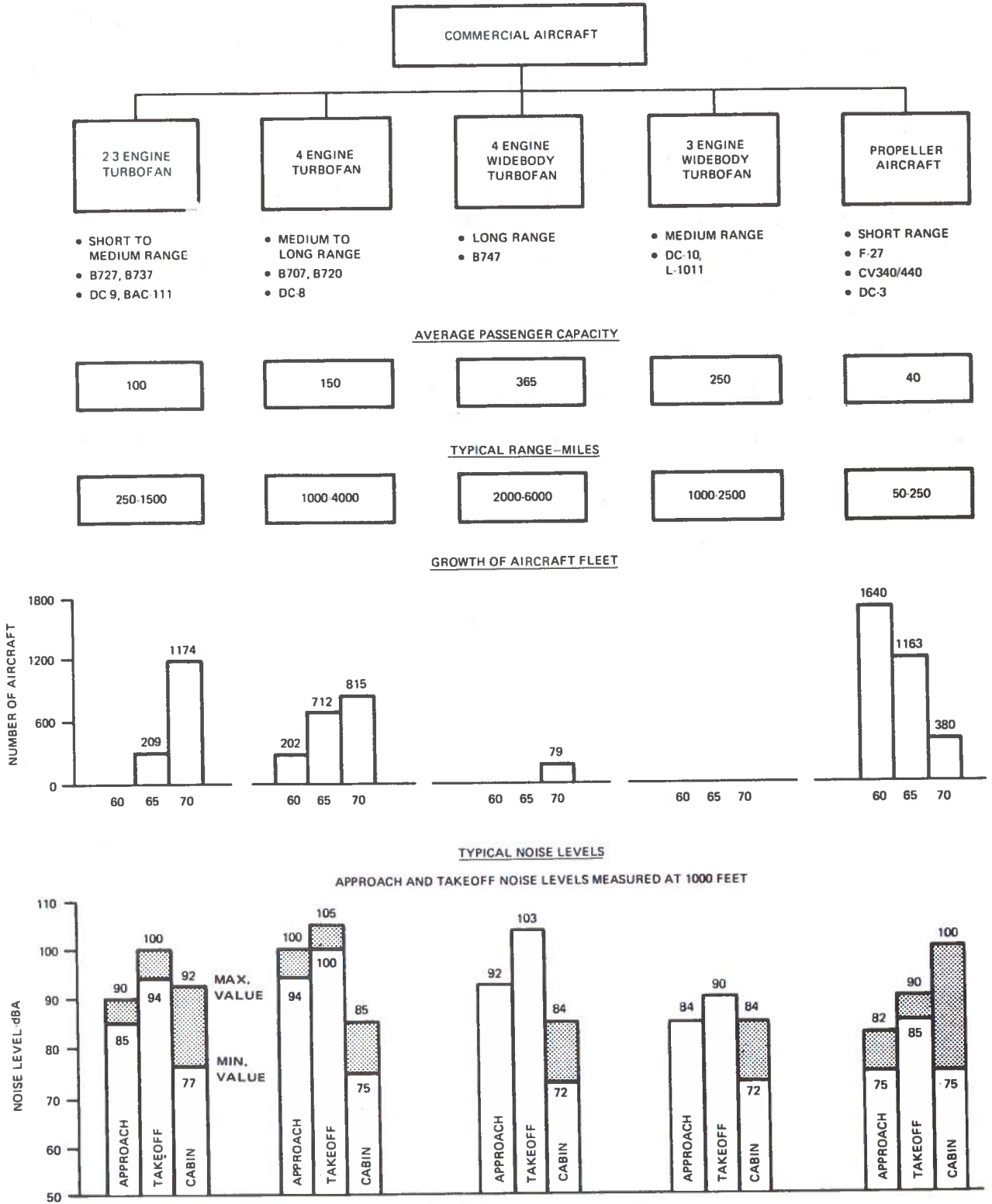
Figure 14. Aircraft-Approach Noise Levels 1 NM from Threshold

Source: U.S. Department of Transportation, *Transportation Noise and Its Control*, June 1972



**Figure 15. Aircraft Sideline Noise**

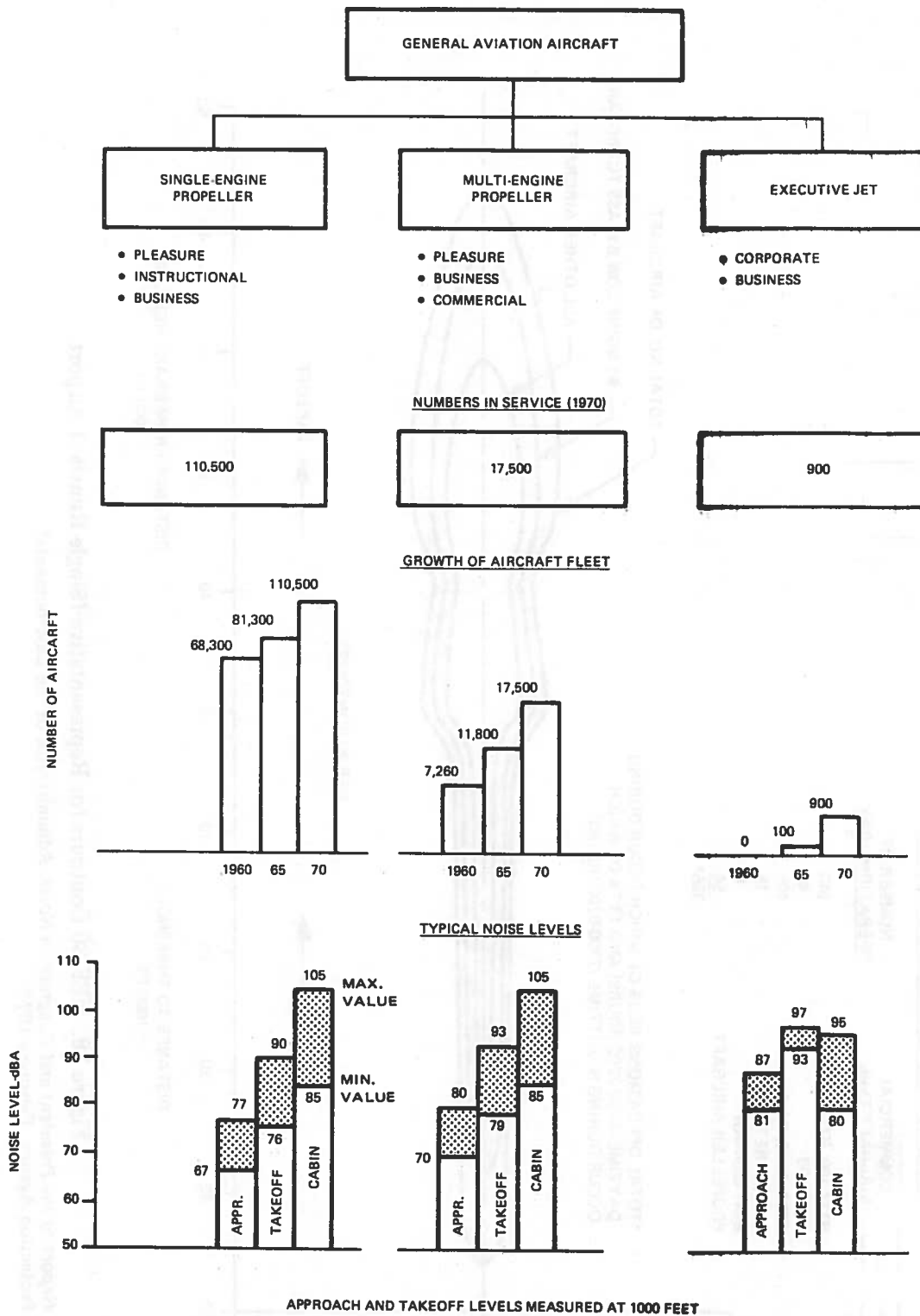
Source: U.S. Department of Transportation, *Transportation Noise and Its Control*, June 1972



**Figure 16. Characteristics of Commercial Aircraft.**

Source: *Report to the President and Congress on Noise*, Administrator of the Environmental Protection Agency, February 1972





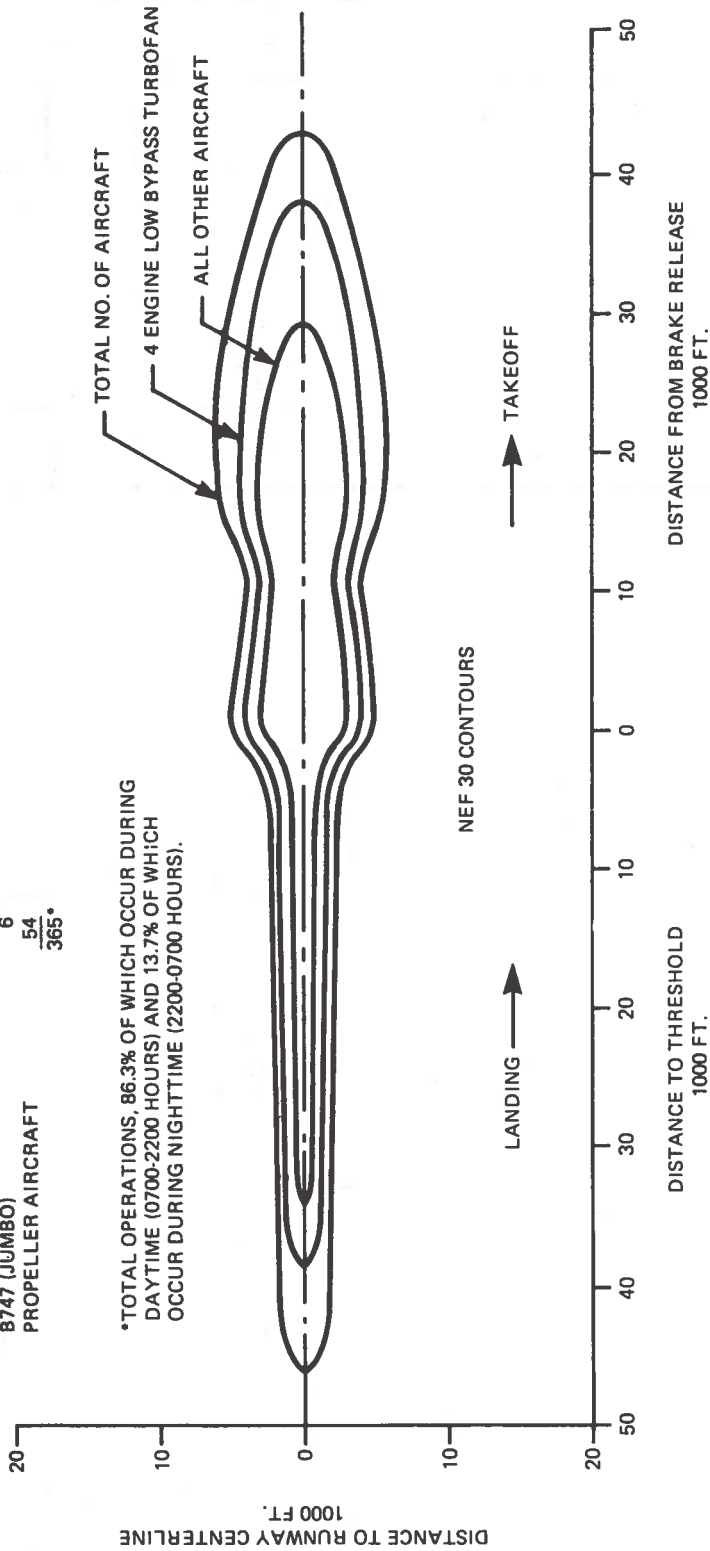
**Figure 17. Characteristics of General Aviation Aircraft.**

Source: *Report to the President and Congress on Noise, Administrator of the Environmental Protection Agency, February 1972.*

REPRESENTATIVE LARGE AIRPORT (1970)

COMMERCIAL AIRCRAFT TYPE	NUMBER OF OPERATIONS/DAY
B727-100, B737, DC-9	140
B727-200	40
B707, B720, DC-8	108
DC-8 (STRETCHED)	18
B747 (JUMBO)	6
PROPELLER AIRCRAFT	54
	<u>365*</u>

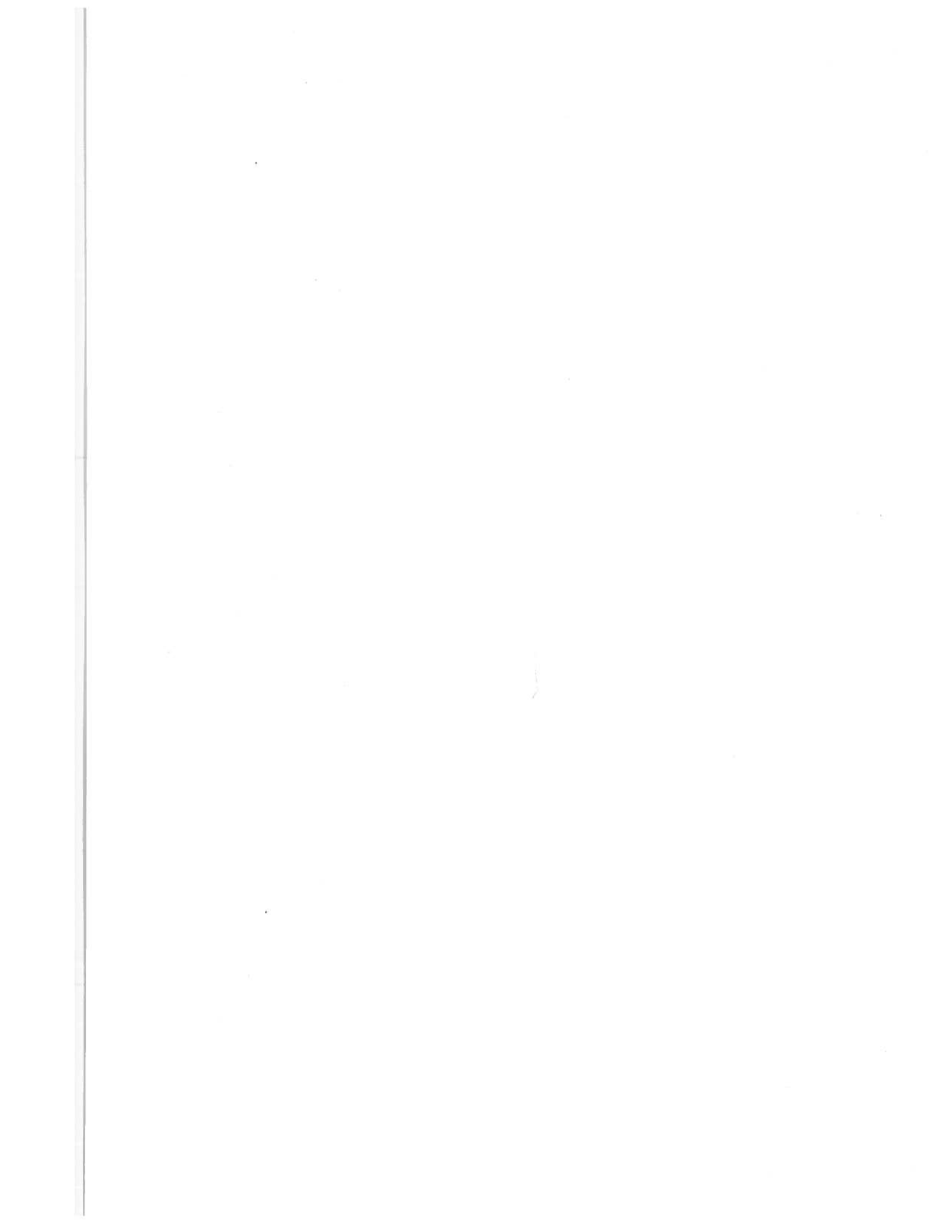
\*TOTAL OPERATIONS, 86.3% OF WHICH OCCUR DURING DAYTIME (0700-2200 HOURS) AND 13.7% OF WHICH OCCUR DURING NIGHTTIME (2200-0700 HOURS).



**Figure 18. NEF-30 Contours for Representative (Single Runway) Airport**

Source: *Report to the President and Congress on Noise, Administrator of the Environmental Protection Agency, February 1972.*

# **Highway Vehicle Noise Levels**

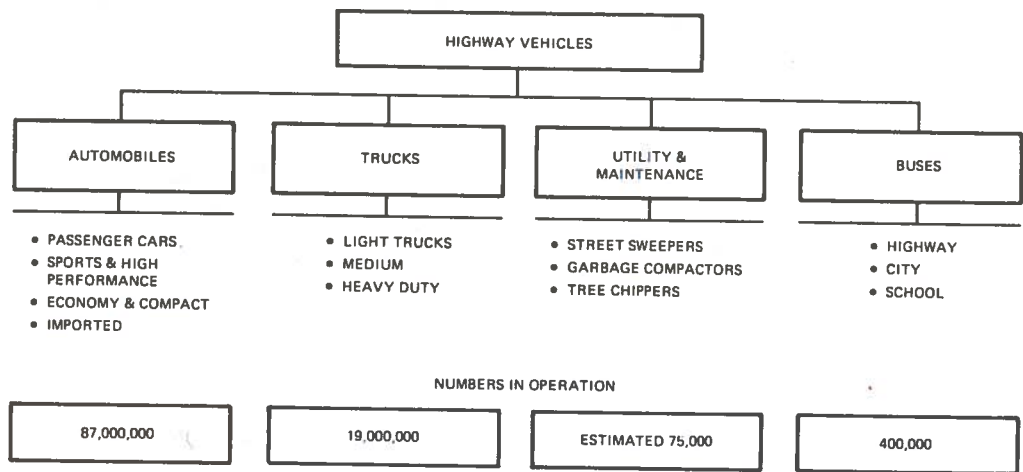


**Table 25. Predicted Contributions to Daytime Residual Noise Levels by Highway Vehicles for a Typical Urban Community in 1970**

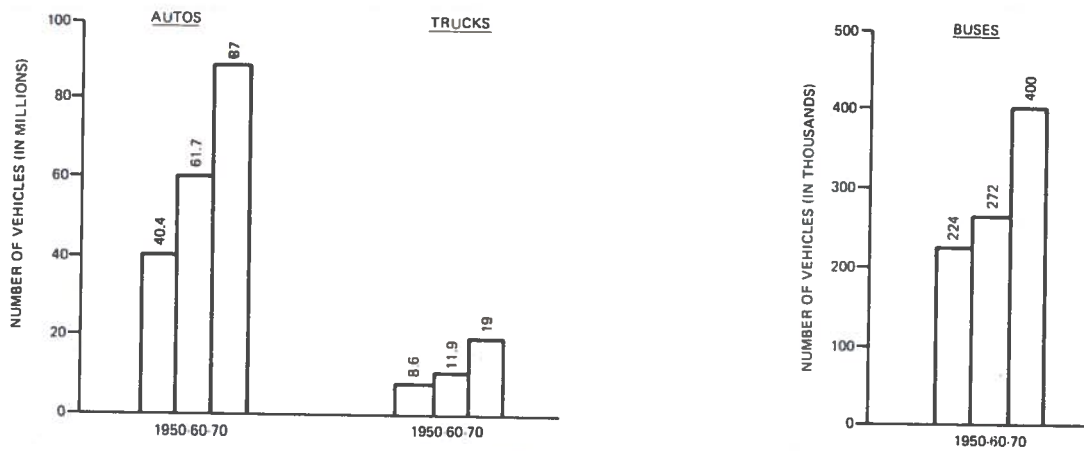
Source	Approximate Source Density, Units/Square Mile	Residual Noise Level dBA
Standard Passenger Cars	50	43
Sports Cars, Compacts, and Imports	20	41
Light Trucks	20	42
Heavy and Medium Trucks	1.5	33
Highway Motorcycles	1	18
City Buses	0.8	15
<b>Total</b>		<b>47 dBA</b>

The residual level was also computed with the same technique for the years 1950 and 1960. The estimated values of the daytime residual noise levels for a typical urban residential community are 45 dBA for 1950 and 46 dBA for 1960. These estimates indicate an increase over 10 years of approximately 1 dB in the residual noise level ( $L_{90}$ ).

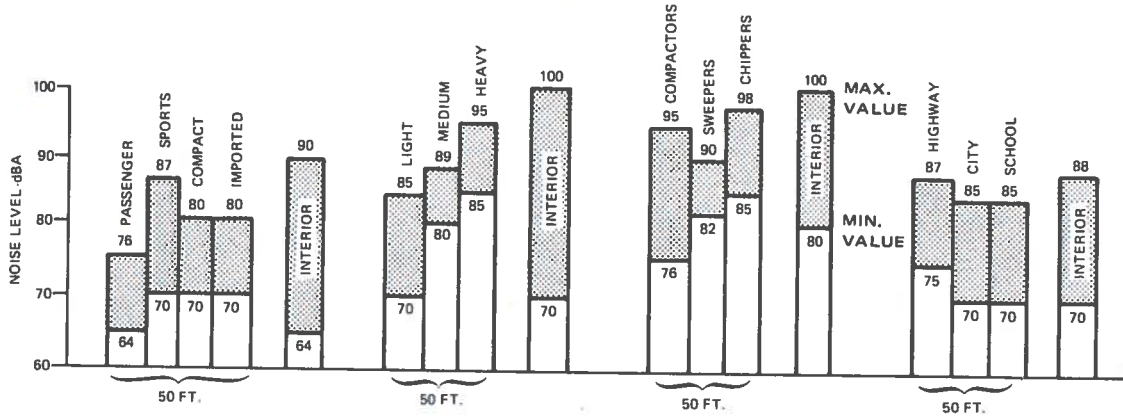
Source: *Report to the President and Congress on Noise*, Administrator of the Environmental Protection Agency, February 1972.



GROWTH OF NUMBER OF HIGHWAY VEHICLES



TYPICAL NOISE LEVELS



**Figure 19. Characteristics of Highway Vehicles**

Source: *Report to the President and Congress on Noise*, Administrator of the Environmental Protection Agency, February 1972

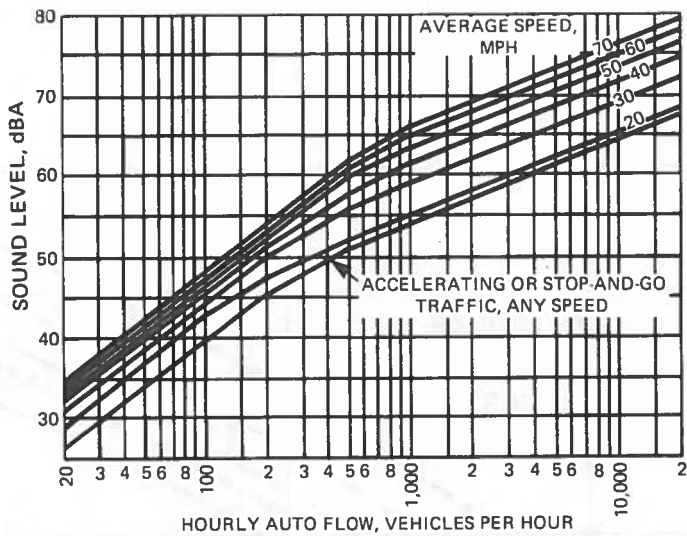


Figure 20. Noise from Cars:  $L_{50}$  for automobiles at 100 feet

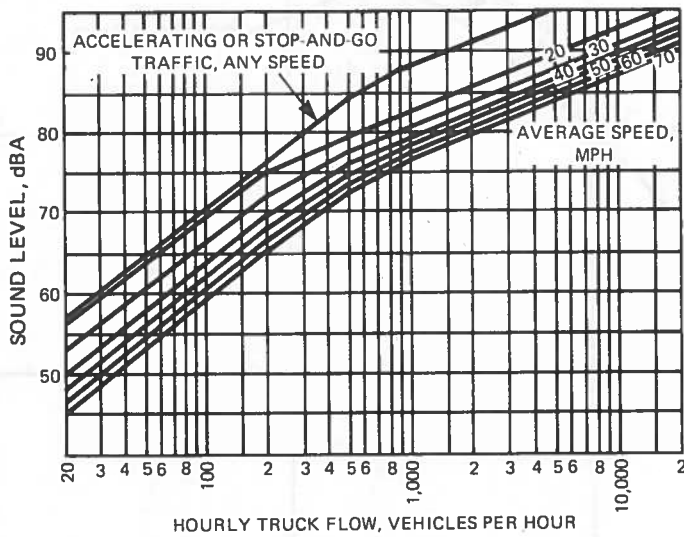
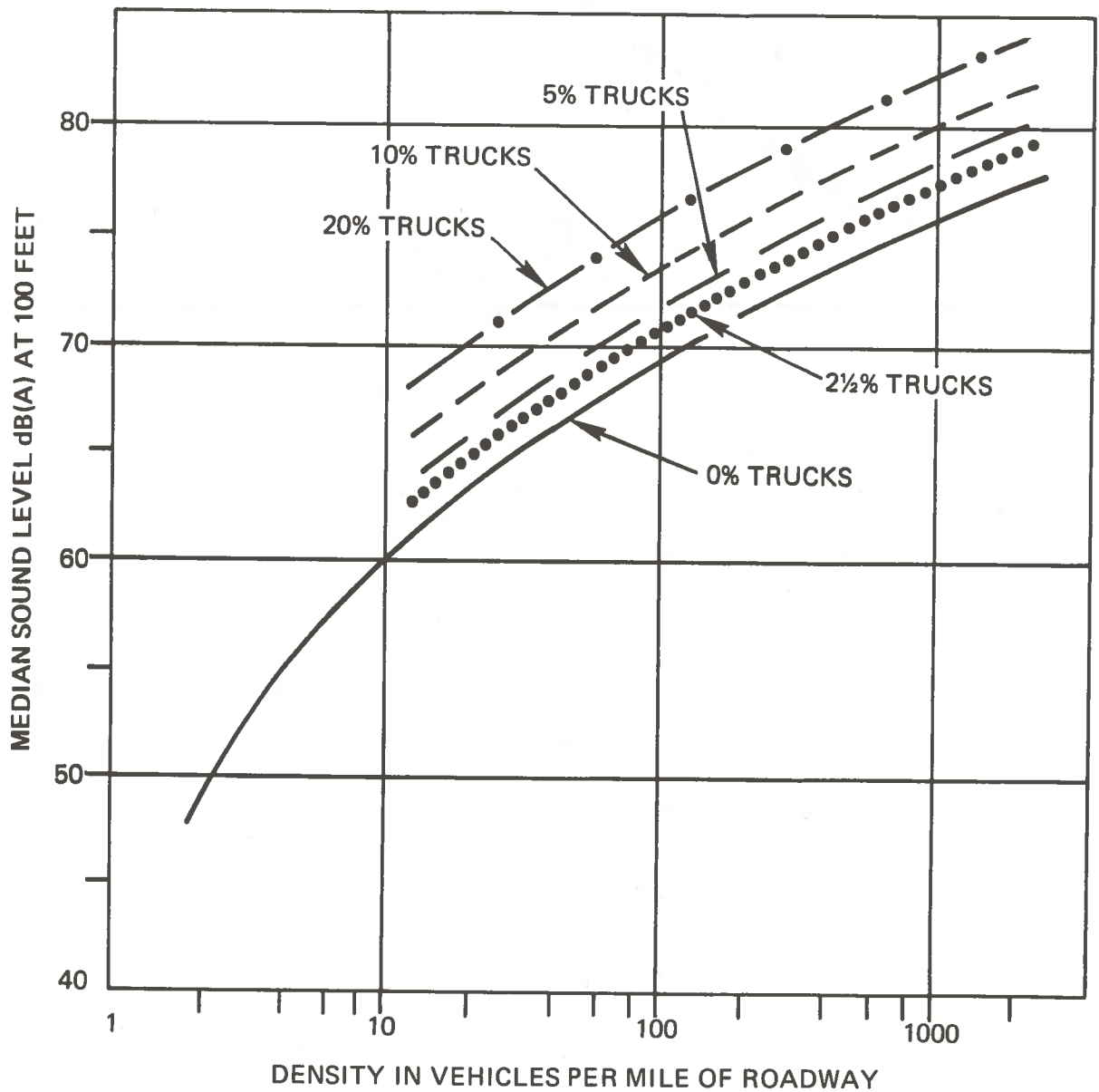


Figure 21. Noise from Trucks:  $L_{50}$  for Trucks at 1,000 feet

Note:  $L_{50}$  = Median sound level. The A-weighted sound level equaled or exceeded 50% of the time.

Source: Journal of the Air Pollution Control Association, Dec. 1973, Vol. 23, No. 12.

Figure 22 provided below shows the level of noise which would be exceeded 50 percent of the time in traffic with a specified speed, vehicle density and mix of trucks.

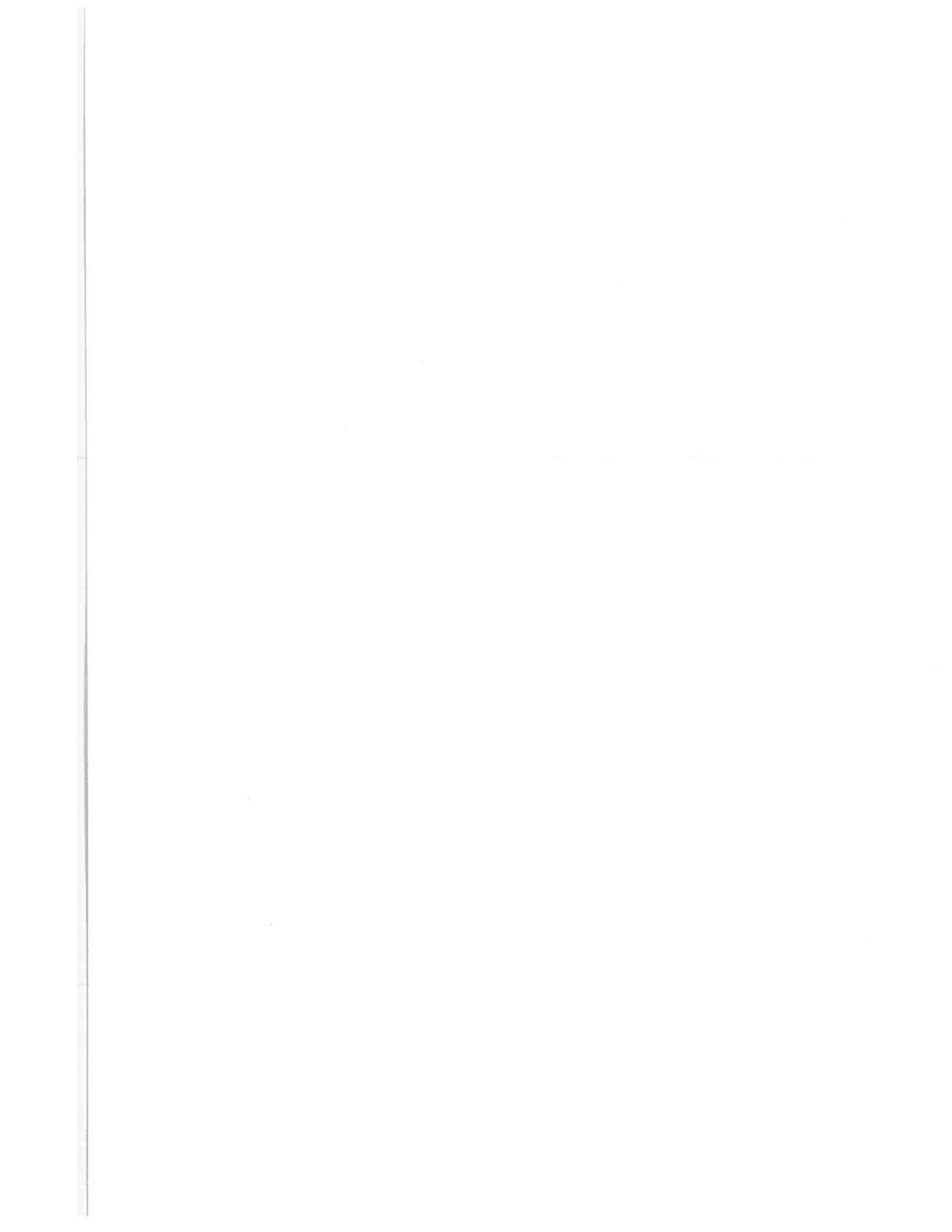


Source: U.S. Department of Transportation, *Transportation Noise and Its Control*, June 1972

Figure 22. Median Noise Level Estimates of Mixed Highway Traffic at 50 MPH



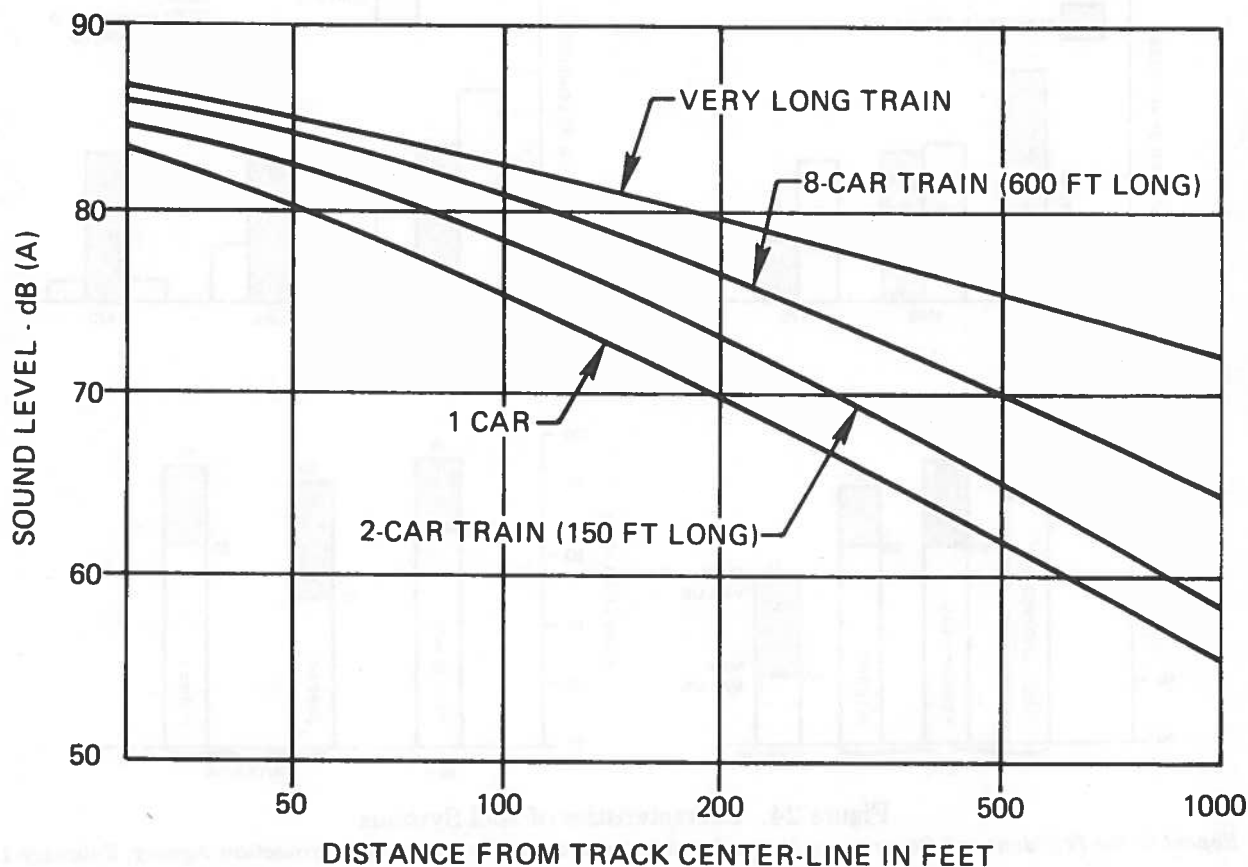
## **Railway and Rapid Transit Noise Levels**



## RAPID TRANSIT NOISE

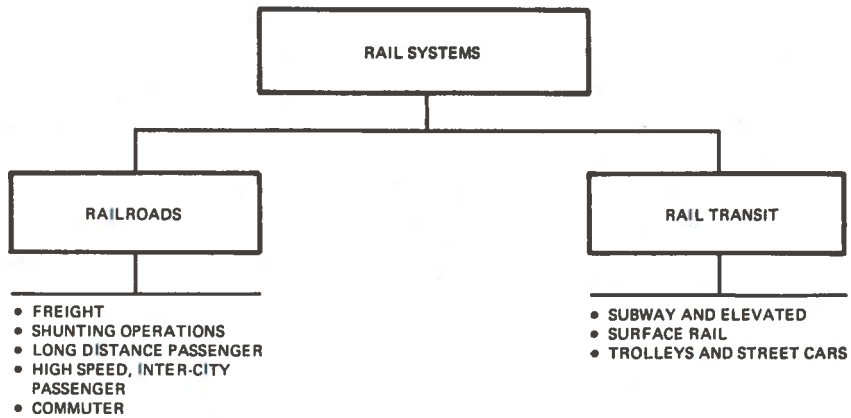
As an alternative to the automobile, passenger service in metropolitan areas and densely populated corridors could be provided by rapid transit or conventional rail vehicles. The following graphed data are presented in the context of modern practices, including welded rail (which would constitute improvement on the order of 6 dB or more over bolted-rail sections) and appropriate rail and wheel maintenance to maintain true rolling surfaces (which would account for improvement on the order of another 5 dB). Also, the data are presented in the context of tangent track, or appropriately large radius turns, to prevent flange squeal. (It should be noted that most of the above modern practices are not incorporated in the older rapid-transit systems.)

The illustration presents the wayside noise levels for a one-car, two-car, eight-car and a very-long train, as a function of distance from the track centerline. The increase in noise level at small distances due to the increased number of noise sources from multiple cars is accentuated with distance. This spread-out array of sources results in higher near-field noise levels and in reduced attenuation with distance (similar to highway traffic noise). Thus, the noise from a single car will geometrically attenuate at a rate of 6 dB per doubling of distance, while noise from a very-long train attenuates at a rate of 3 dB per doubling of distance.

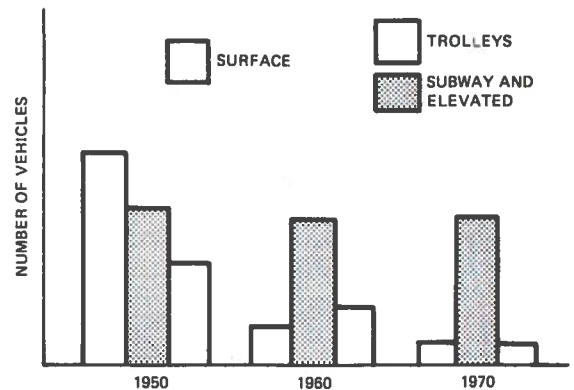
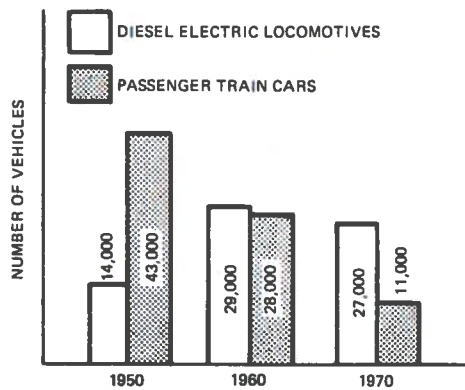


**Figure 23. Wayside Noise Level for Transit Trains of Various Lengths at 40 Mph**

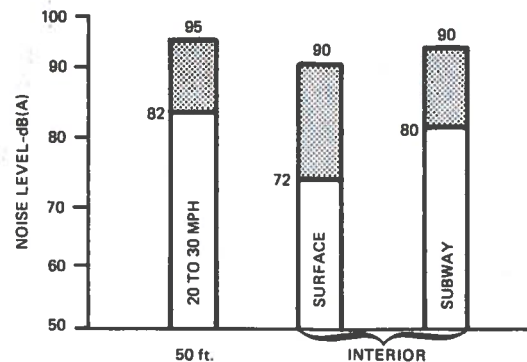
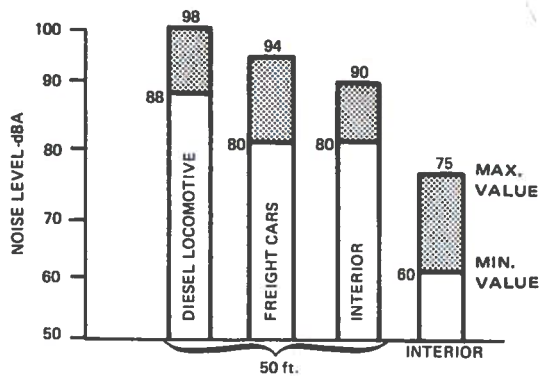
Source: U.S. Department of Transportation, *Transportation Noise and Its Control*, June, 1972



**GROWTH OF RAIL FLEET**

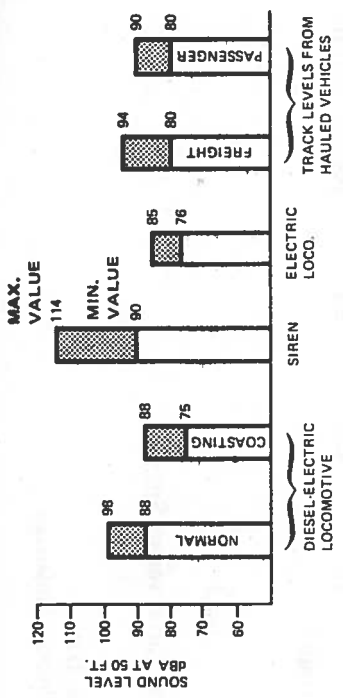
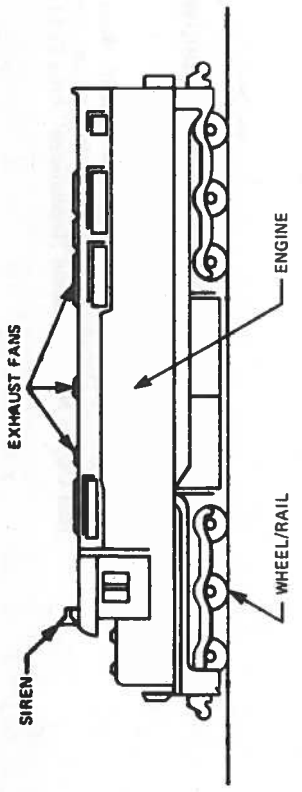


**TYPICAL NOISE LEVELS**

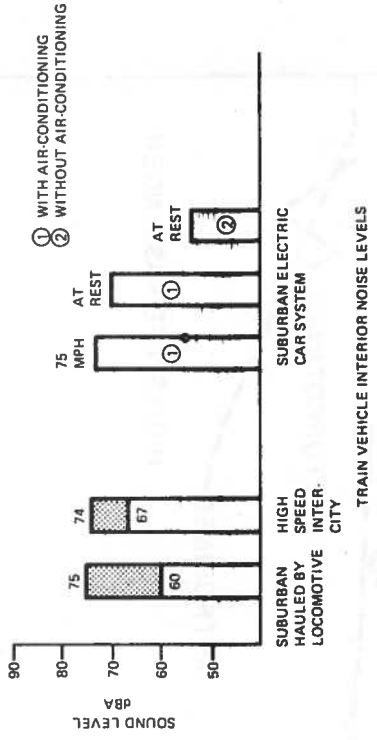
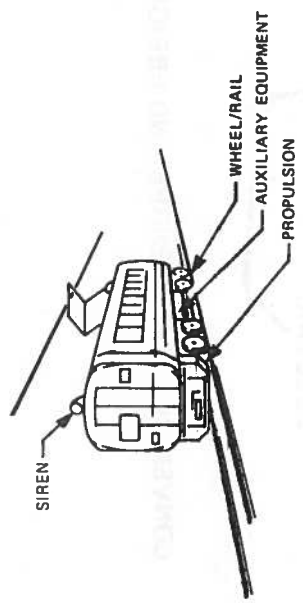


**Figure 24. Characteristics of Rail Systems**

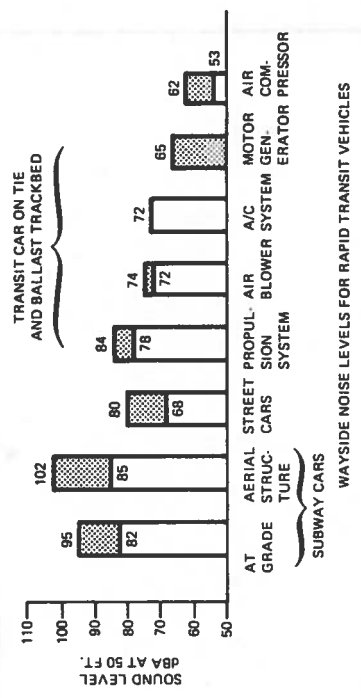
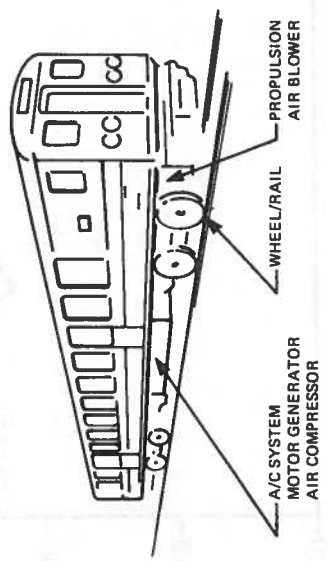
Source: Report to the President and Congress on Noise, Administrator of the Environmental Protection Agency, February 1972.



WAYSIDE NOISE LEVELS OF RAILROAD EQUIPMENT



TRAIN VEHICLE INTERIOR NOISE LEVELS



WAYSIDE NOISE LEVELS FOR RAPID TRANSIT VEHICLES

Figure 25. Rail Vehicle Noise Sources

Source: Report to the President and Congress on Noise, Administrator of the Environmental Protection Agency, February 1972

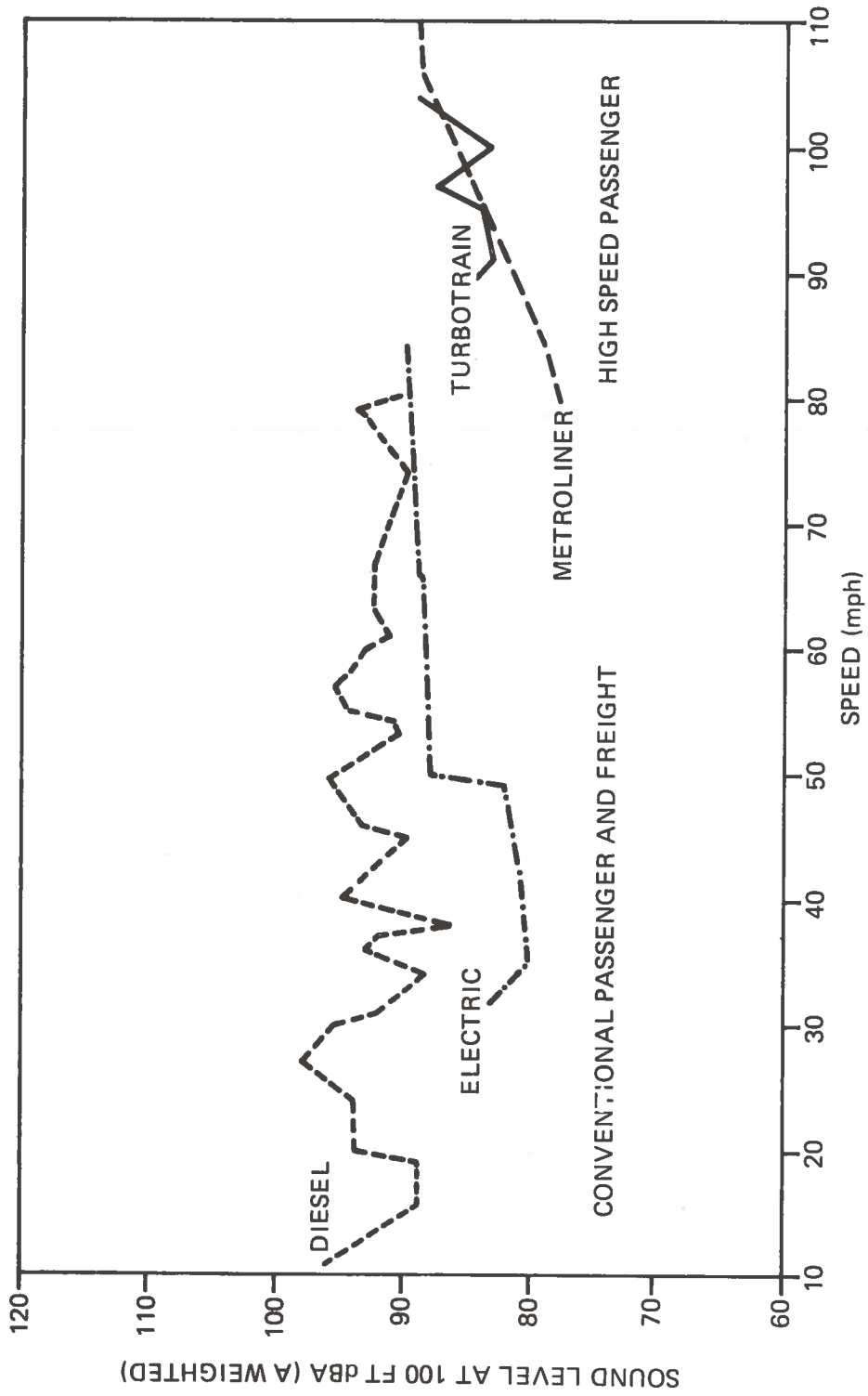


Figure 26. Peak Locomotive Noise Level versus Speed

Source: EPA - Office of Noise Abatement and Control, Washington, D.C.  
 "Background Document/Environmental Explanation for Proposed Interstate  
 Rail Carrier Noise Emission Regulations", June 1974

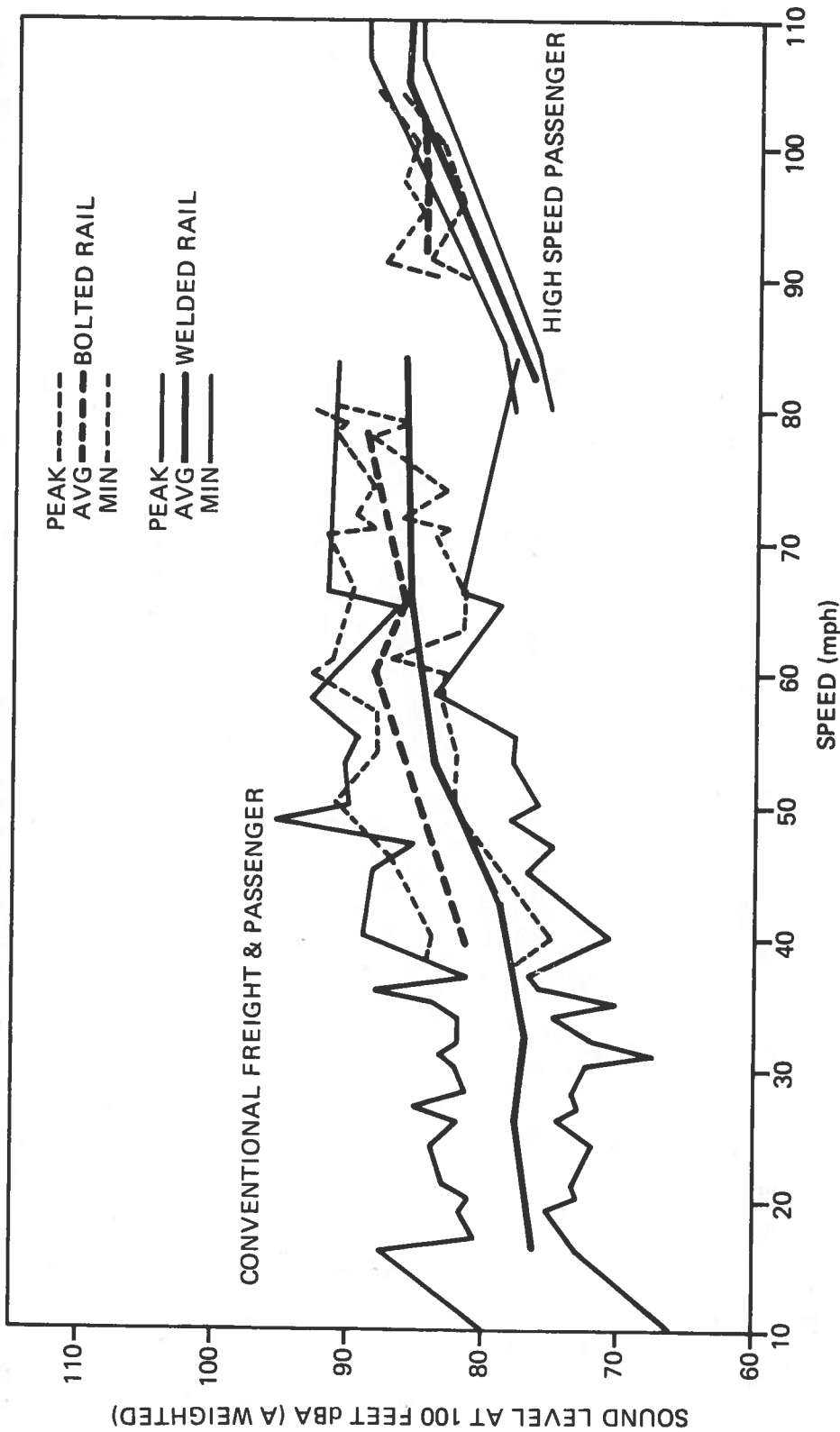
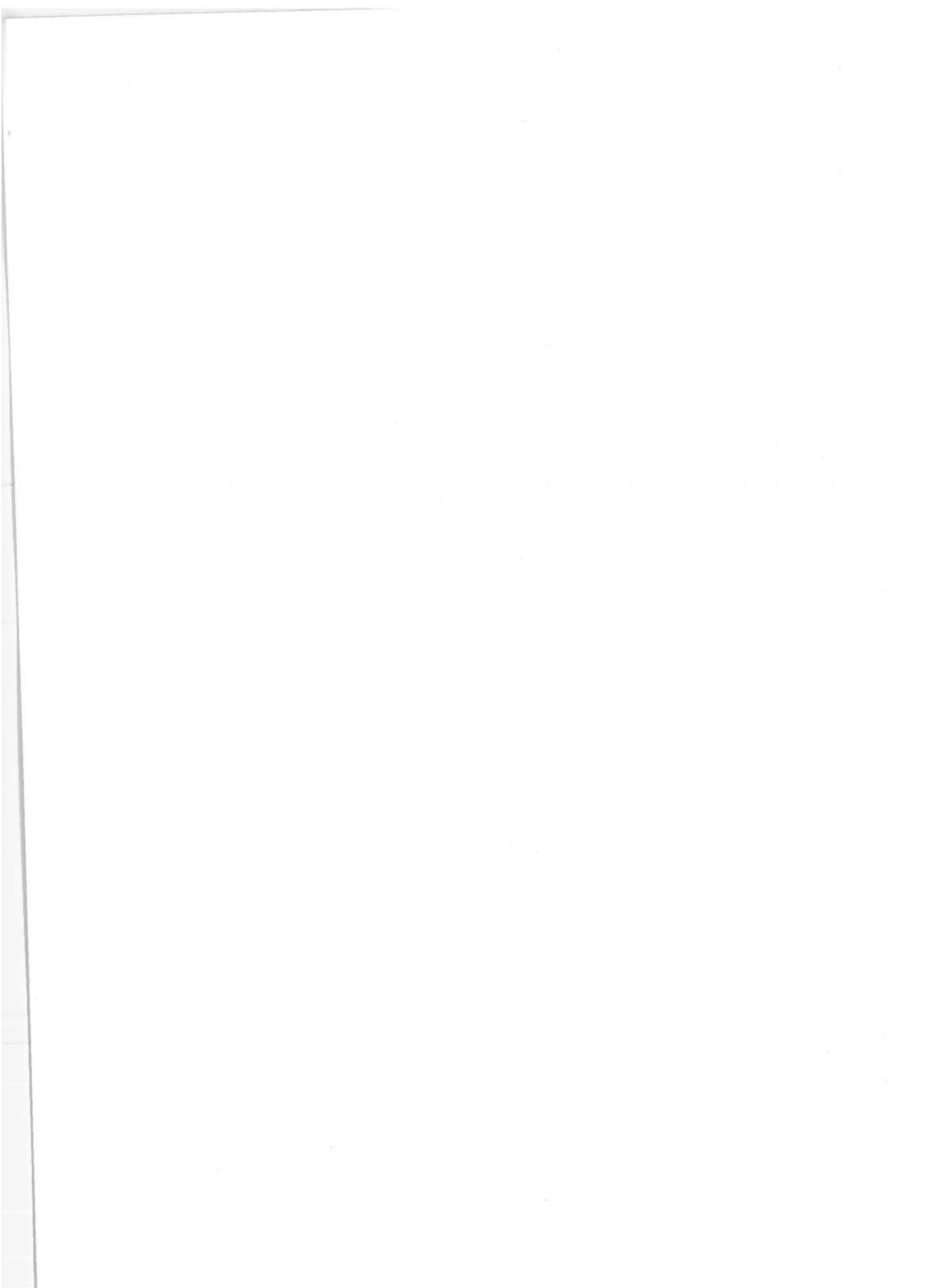


Figure 27. Average and Minimum Rail-Wheel Sound Level versus Speed

Source: EPA - Office of Noise Abatement and Control, Washington, D.C.  
 "Background Document/Environmental Explanation for Proposed Interstate  
 Rail Carrier Noise Emission Regulations" June 1974





**APPENDIX A**  
**Source Information**

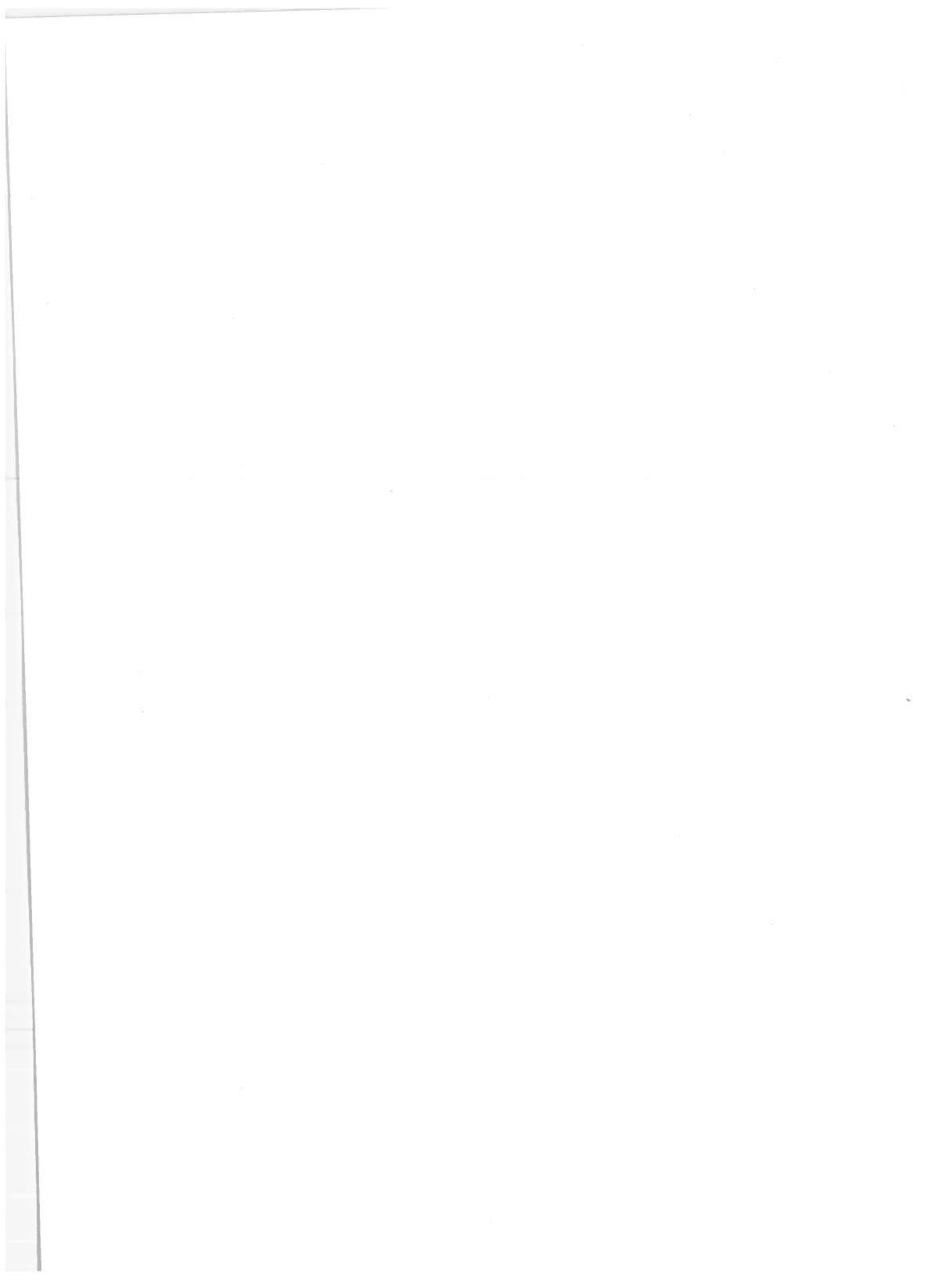


Figure 3: Expenditures and Revenues, 1973

- (1) Total Transportation-Sum of Domestic and International.
- (2) Domestic-Sum of Highway, Local Transit, Rail, Air, Water, and Pipeline.
- (3) International-Sum of Air Carrier and Water.
- (4) Highway-Sum of Auto, Truck, and Bus.
- (5) Auto-Sum of Personal Passenger Car and Taxi.
- (6) Personal Passenger Car-DOC, *Survey of Current Business*, Vol. 54, No. 7, July 1974, p. 24, Table 2.5.
- (7) Taxi-TAA, *Transportation Facts and Trends*, April 1975, Quarterly Supplement, Dec. 1974, p.4.
- (9) Truck-Sum of Local Truck and Intercity Truck.
- (10) Local Truck-*Ibid.*, Jan. 1974, p. 4.
- (11) Intercity Truck-Sum of ICC-Regulated Truck and Nonregulated Truck.
- (12) ICC-Regulated Truck-*Ibid.*, April 1975, p. 4. Revenues of the Class I, II, III motor carriers of property. Revenues include local cartage under the assumption that the majority of such revenues constitute pickup and delivery of intercity freight.
- (13) Nonregulated Truck-*Ibid.*, April 1975, p. 4.
- (14) Bus-Sum of Intercity Bus and School Bus.
- (15) Intercity Bus-NAMBO, *Bus Facts*, 1973, p. 16. Operating revenues of Class I, II, III carriers reporting to the ICC, plus intrastate carriers. Includes passenger, express, mail, station, and other revenues.
- (16) Passenger, Intercity Bus-*Ibid.*, 1973, p. 17. Total passenger revenues of Class I carriers plus 25 percent of this amount as estimated passenger revenues for Class II and III and intrastate carriers.
- (17) Cargo, Intercity Bus-*Ibid.*, 1973, p. 17. Total package express and mail revenues of Class I carriers plus 25 percent of this amount as estimated cargo revenues for Class II and III and intrastate carriers.
- (18) School Bus-TAA, *Transportation Facts and Trends*, April 1975, Quarterly Supplement, Dec. 1974, p. 5.
- (19) Local Transit-APTA, *Transit Fact Book*, '74-'75, Table 8. Total operating revenues of Surface Rail, Subway and Elevated, Trolley Coach, and Motorbus.
- (20) Motorbus-*Ibid.*, '74-'75, Table 8. Operating revenues.

Figure 3: Expenditures and Revenues, 1973 (cont.)

- (21) Trolley Coach-*Ibid.*, '74-'75, Table 8. Operating revenues.
- (22) Surface Rail-*Ibid.*, '74-'75, Table 8. Operating revenues.
- (23) Subway and Elevated-*Ibid.*, '74-'75, Table 8. Operating revenues.
- (24) Rail-A.A.R., *Yearbook of Railroad Facts*, 1974, p. 10 and A.A.R., *Statistics of Railroads of Class I*, Aug. 1974, p. 16. Sum of the total operating revenues of Class I railroads and AMTRAK.
- (25) Rail, Passenger—Sum of Commuter and Intercity.
- (26) Rail, Commuter—I.C.C., *Class I Railroads, Financial and Operating Statistics*, Dec. 31, 1973, p. 19, commutation passenger revenues of the Class I railroads and AMTRAK.
- (27) Rail, Intercity-*Ibid.*, Dec. 31, 1973, p. 19. Sum of Class I and AMTRAK passenger revenues from parlor and sleeping cars and other coaches.
- (28) Rail, Cargo-A.A.R., *Yearbook of Railroad Facts*, 1974, p. 10. Sum of Class I freight revenues and express and mail revenues.
- (29) Air-Sum of General Aviation and Air Carrier.
- (30) General Aviation-TAA, *Transportation Facts and Trends*, April 1975, Quarterly Supplement, Dec. 1974, p.5. Figure represents the sum of operating costs and total retail value of new general aviation aircraft.
- (36) Air Carrier-Sum of Certificated and Supplemental.
- (37) Certificated-CAB, *Air Carrier Financial Statistics*, Dec. 1973, p. 1, column 7, line 17. Overall operating revenues, domestic operations.
- (38) Passenger, Certificated-*Ibid.*, Dec. 1973, p. 1, column 7, sum of lines 3 and 10. Total passenger revenues in scheduled and charter service.
- (39) Cargo, Certificated-*Ibid.*, Dec. 1973, p. 1, column 7. Sum of lines 4, 5, 6, 7, 8, 9 and 11. Includes revenues from scheduled service of freight, express, priority U.S. mail, nonpriority U.S. mail, foreign mail, excess baggage, and charter freight.
- (40) Supplemental-*Ibid.*, Dec. 1973, p. 98. Overall operating revenues of supplemental air carriers, total domestic and international operations. No separation of international and domestic revenues is available.
- (41) Passenger, Supplemental-*Ibid.*, Dec. 1973, p. 98. Sum of civilian (line 1) and military (line 2) passenger revenues. Total domestic and international operations.
- (42) Cargo, Supplemental-*Ibid.*, Dec. 1973, p. 98. Sum of civilian (line 3) and military (line 4) property revenues.
- (43) Water-Sum of Passenger, Cargo, and Commercial fishing.

Figure 3: Expenditures and Revenues, 1973 (cont.)

- (44) Passenger, Water-TAA, *Transportation Facts and Trends*, April 1975, Quarterly Supplement, Dec. 1974, p.5. Figure represents revenues of ICC-regulated carriers. Expenditures for private boating not available.
- (49) Cargo, Water-*Ibid.*, April 1975, p.4.
- (50) Commercial Fishing—U.S. Dept. of Commerce—National Oceanic and Atmospheric Administration, *Fisheries of the U.S.*, 1973, March 1974, p. 27. This figure is the total dollar value of the U.S. Commercial Fisheries landings.
- (51) Pipeline-TAA, *Transportation Facts and Trends*, April 1975, Quarterly Supplement, Dec. 1974, p.4. Includes revenues of regulated and unregulated oil pipelines.
- (52) Air Carrier-Figure represents overall operating revenues of the certificated carriers, total international and territorial operations. Revenues of the supplemental carriers international operations are included in the domestic statistic.
- (53) Certificated-CAB, *Air Carrier Financial Statistics*, Dec. 1973, p. 7, column 3, line 17. Total international and territorial operations.
- (54) Passenger, Certificated-*Ibid.*, Dec. 1973, p. 7, column 3. Sum of total passenger revenues in scheduled service (line 3) and charter passenger revenues (line 10), total international and territorial operations.
- (55) Cargo, Certificated-*Ibid.*, Dec. 1973, p. 7, column 3. Sum of lines 4, 5, 6, 7, 8, 9, and 11. Includes revenues from scheduled service of freight, express, priority U.S. mail, non-priority U.S. mail, foreign mail, excess baggage, and charter freight. Total international and territorial operations.
- (59) Water-Sum of Passenger and Cargo.
- (60) Passenger, Water-TAA, *Transportation Facts and Trends*, April 1975, Quarterly Supplement, Dec. 1974, p.5.
- (61) Cargo, Water-*Ibid.*, April 1975.

Figure 4: Vehicle-Miles, 1973

- (1) Total Transportation-Sum of Domestic and International.
- (2) Domestic-Sum of Highway, Local Transit, Rail, Air, and Water.
- (3) International-Sum of Air Carrier and Water.
- (4) Highway-Sum of Auto, Truck and Bus.
- (5) Auto-Sum of Personal Passenger Car, Motorcycle, and Taxi.
- (6) Personal Passenger Car, Federal Highway Administration, *Highway Statistics*, 1973, table VM-1. Includes vehicle travel on main rural roads, local rural roads, and urban streets.
- (7) Taxi-Data for taxi are included in the Personal Passenger Car category.

Figure 4: Vehicle-Miles, 1973 (cont.)

- (8) Motorcycle-Federal Highway Administration, *Highway Statistics* 1973, table VM-1. Includes vehicle travel on main rural roads, local rural roads, and urban streets.
- (9) Truck-*Ibid.*, 1973, table VM-1. Includes vehicle travel on main rural roads, local rural roads, and urban streets.
- (14) Bus-Sum of Intercity Bus and School Bus.
- (15) Intercity Bus-NAMBO, *Bus Facts*, 1973, p. 16. Includes operations of Class I, II, and III carriers reporting to the ICC and interstate carriers.
- (18) School Bus-Federal Highway Administration, *Highway Statistics*, 1972, table VM-1, p. 52. Includes vehicle travel, on main rural roads, local rural roads, and urban streets.
- (19) Local Transit-Sum of Motorbus, Trolley Coach, Surface Rail, and Subway and Elevated.
- (20) Motorbus-APTA, *Transit Fact Book*, '74-'75, Table 13.
- (21) *Ibid.*, '74-'75, Table 13.
- (22) *Ibid.*, '74-'75, Table 13.
- (23) *Ibid.*, '74-'75, Table 13.
- (24) Rail-Sum of Passenger and Cargo.
- (25) Passenger Rail-AAR, *Yearbook of Railroad Facts*, 1974, p. 39. This figure is the sum of the passenger train-miles of Class I railroads and AMTRAK.
- (28) Rail, Cargo-AAR, *Yearbook of Railroad Facts*, 1974, p. 37. This figure is freight train-miles of the Class I railroads.
- (29) Air-Sum of General Aviation and Air Carrier.
- (30) General Aviation-FAA, *Statistical Handbook*, 1973, Table 8.5. Includes business, commercial instructional, personal, and other flying.
- (31) Business-*Ibid.*, 1973.
- (32) Commercial-*Ibid.*, 1973.
- (33) Instructional-*Ibid.*, 1973.
- (34) Personal-*Ibid.*, 1973.
- (35) Other-*Ibid.*, 1973.
- (36) Domestic Air Carrier-Sum of Certificated and Supplemental.
- (37) Certificated-CAB, *Air Carrier Traffic Statistics*, Dec. 1974, p. 4. Sum of overall aircraft revenue-miles in scheduled service (line 31) and nonscheduled service (line 50), col. 5, total domestic operations.

Figure 4: Vehicle-Miles, 1973 (cont.)

- (40) Supplemental-CAB, *Air Carrier Traffic Statistics*, Dec. 1974, p. 93, line 21, col. 4.
- (52) International Air Carrier-Sum of Certificated and Supplemental.
- (53) Certificated-CAB, *Air Carrier Traffic Statistics*, 1973, p. 7, col. 4. Sum of overall aircraft revenue-miles in scheduled service (line 31) and nonscheduled service (line 50), total international and territorial operations.
- (56) Supplemental-CAB, *Air Carrier Traffic Statistics*, 1974, p. 93, line 21, col. 5.

Figure 5: Passenger-Miles, 1973

- (1) Total Transportation-Sum of Domestic and International.
- (2) Domestic-Sum of Highway, Local Transit, Rail, Air and Water.
- (3) International-Air Carrier only. Passenger-miles in international water transport are not available.
- (4) Highway-Sum of Auto and Bus.
- (5) Auto-Sum of Personal Passenger Car, Taxi, and Motorcycle.
- (6) Personal Passenger Car-Passenger-miles of Personal Passenger Car and Taxi. Figure represents vehicle-miles of travel from FHWA, *Highway Statistics*, 1973, table VM-1, multiplied by an average occupancy of 2.2.
- (7) Taxi-Included in Personal Passenger Car category.
- (8) Motorcycle-Passenger-miles (derived by multiplying vehicle-miles of travel from FHWA, *Highway Statistics*, 1973, Table VM-1, by an average occupancy of 1.1.
- (14) Bus-Sum of Intercity Bus and School Bus passenger-miles.
- (15) Intercity Bus-NAMBO, *Bus Facts*, 1973, p. 16. Includes Classes I, II, III carriers reporting to ICC plus intrastate carriers.
- (18) School Bus-Computed by the Driver Education and Licensing Division NHTSA.
- (24) Rail-Same as Passenger (25) in same ref.
- (25) Passenger Rail-Sum of Commuter and Intercity.
- (26) Commuter Rail-A.A.R., *Yearbook of Railroad Facts*, 1974, p. 32, Sum of the commutation passenger miles of the Class I railroads and AMTRAK.
- (27) Intercity Rail-*Ibid.*, 1974, p. 32. Sum of Class I and AMTRAK passenger miles from parlor and sleeping cars and other coaches.

Figure 5: Passenger-Miles, 1973 (cont.)

- (29) Air-Sum of General Aviation and Air Carrier.
- (30) General Aviation-TAA, *Transportation Facts and Trends*. Intercity passenger-miles.
- (36) Air Carrier-Sum of Certificated and Supplemental.
- (37) Certificated-CAB, *Air Carrier Traffic Statistics*, Dec. 1973, p. 2, col. 10. Sum of revenue
- (38) passenger-miles in scheduled service (line 9) and nonscheduled service (line 43), total domestic operations.
- (40) Supplemental-*Ibid.*, Dec. 1974, p. 93, line 4, col. 4. Total revenue passenger-miles in domestic
- (41) operations.
- (43) Water-TAA, *Transportation Facts and Trends*, Oct, 1973, p. 18. Intercity passenger-miles.
- (44)
- (52) Air Carrier-Sum of Certificated and Supplemental.
- (53) Certificated-CAB, *Air Carrier Traffic Statistics*, Dec. 1973, p. 7, col. 4. Sum of revenue
- (54) passenger-miles in scheduled service (line 9) col. 4 and nonscheduled service (line 43). Total international and territorial operations.
- (56) Supplemental-*Ibid.*, Dec. 1974, p. 93, line 4, col. 5. Total revenue passenger-miles in inter-
- (57) national operations.

Figure 6: Cargo Ton-Miles, 1973

- (1) Total Transportation-Sum of Domestic and International.
- (2) Domestic-Sum of Highway, Rail, Air, Water and Pipeline.
- (3) International-Sum of Air Carrier and Water.
- (4) Highway-Figure represents total ton-miles of intercity truck transport plus ton-miles of intercity bus. Local truck ton-miles are not available.
- (9) Truck-Includes intercity truck only.
- (11) Intercity Truck-ICC, *88th Annual Report*, 1974, p. 120, Table 3. Figure includes the intercity common and contract motor carriers of property operating under ICC authority, plus the intercity ton-miles of all private trucks and for-hire trucks not subject to economic regulation by the ICC, plus intercity ton-miles of local ICC carriers.
- (12) ICC-Regulated Intercity Truck-ICC, *88th Annual Report*, 1974, p. 121. The 1973 federally regulated percentage of total intercity ton-miles assumed equal to the 1972 percentage (42.1 percent).
- (13) Nonregulated Intercity Truck-*Ibid.*, 1974, p. 121. 1973 nonregulated percentage of total intercity ton-miles assumed equal to the 1972 percentage (57.9 percent).



Figure 6: Cargo Ton-Miles, 1973 (cont.)

- (24) Rail-ICC, *88th Annual Report*, 1974, p. 120. Intercity ton-miles of all railroads and electric
- (28) railways, excluding express and mail.
- (29) Air-Air Carrier only.
- (36) Air Carrier-Sum of Certificated and Supplemental.
- (37) Certificated-CAB, *Air Carrier Traffic Statistics*, Dec. 1974, p. 4, lines 2,3,4, col. 5. Revenue
- (39) ton-miles of freight, express, U.S. and foreign mail in domestic operations, all services.
- (40) Supplemental-*Ibid.*, 1974, p. 93, line 13, col. 4. Revenue ton-miles of freight and express in
- (42) total domestic operations of the supplemental carriers. Supplemental carriers are ordinarily not authorized to carry mail.
- (43) Water-Department of the Army, Corps of Engineers, *Waterborne Commerce of the United*
- (49) *States*, 1973, Part 5, p. 89. Total domestic ton-miles.
- (51) Pipeline-ICC, *88th Annual Report*, 1974, p. 120. Intercity ton-miles of oil pipelines.
- (52) Air Carrier-Sum of Supplemental and Certificated.
- (53) Certificated-CAB, *Air Carrier Traffic Statistics*, Dec. 1974, p. 13, lines 2, 3, 4, col. 4. Revenue
- (55) ton-miles of freight, express, U.S. and foreign mail in total international and territorial operations, all services of the certificated carriers.
- (56) Supplemental-*Ibid.*, 1974, p. 93, line 13, col. 5. Revenue ton-miles of freight and express in
- (58) total international operations. Supplemental carriers are ordinarily not authorized to carry mail.

Figure 7: Number of Vehicles, 1973

- (1) Total Transportation-Sum of Domestic and International.
- (2) Domestic-Sum of Highway, Local Transit, Rail, Air, Water, and Pipeline.
- (3) International-Sum of Air Carrier and Water.
- (4) Highway-Sum of Auto, Truck, and Bus.
- (5) Auto-Sum of Personal Passenger Car and Motorcycle.
- (6) Personal Passenger Car-FHWA, *Highway Statistics*, 1973, table MV-1. This figure includes private and commercial vehicles (including taxicabs) as well as publicly owned vehicles for the 50 States and the District of Columbia.
- (7) Taxi-Data for Taxi are included in the Personal Passenger Car category.
- (8) Motorcycle-FHWA, *Highway Statistics*, 1973, table MV-1. This figure is the sum of the private and commercial vehicles plus the publicly owned vehicles.

Figure 7: Number of Vehicles, 1973 (cont.)

- (9) Truck-*Ibid.*, 1973, table MV-1.
- (14) Bus-Sum of Intercity Bus and School Bus.
- (15) Intercity Bus-NAMBO, *Bus Facts*, 1973, p. 16. This figure includes operations of Class I, II, and III carriers reporting to the ICC and intrastate carriers.
- (18) School FHWA, *Highway Statistics*, 1973, table MV-10. For some States, church, industrial and other private buses are included: in other States, privately owned school buses could not be segregated from commercial buses and are included with the latter.
- (19) Local Transit-Sum of Motorbus, Trolley Coach, Surface Rail, and Subway and Elevated.
- (20) Motorbus-APTA, *Transit Fact Book*, '74-'75, Table 12. This figure does not include sightseeing buses or school buses.
- (21) Trolley Coach-*Ibid.*, '74-'75, Table 12.
- (22) Surface Rail-*Ibid.*, '74-'75, Table 12. This figure does not include commuter or suburban railroads.
- (23) Subway and Elevated-*Ibid.*, '74-'75, Table 12.
- (24) Rail-A.A.R., *Yearbook of Railroad Facts*, 1974, pp. 54, 51, 50. This figure is the sum of passenger train cars, freight cars, and locomotives owned by the Class I railroads and AMTRAK.
- (25) Rail, Passenger-*Ibid.*, 1974, p. 54. Sum of passenger train cars owned by the Class I railroads and AMTRAK.
- (28) Rail, Cargo-*Ibid.*, 1974, p. 51. Freight cars, Class I railroads.
- (29) Air-Sum of General Aviation and Air Carrier.
- (30) General Aviation-FAA, *Statistical Handbook of Aviation*, 1974, Table 8.1.
- (31) Business-*Ibid.*, 1974. This category includes business (33,199) and executive transportation (8,139).
- (32) Commercial-*Ibid.*, 1974. This category includes air taxi (5,605), aerial application (6,315), and rental (6,676).
- (33) Instructional-*Ibid.*, 1974.
- (34) Personal-*Ibid.*, 1974.
- (35) Other-*Ibid.*, 1974. This category includes other (3,946) and industrial/special (2,250).
- (36) Air Carrier-Sum of Certificated and Supplemental.
- (37) Certificated-Civil Aeronautics Board, Bureau of Accounts and Statistics. This figure represents owned aircraft, excluding those leased to others, plus aircraft leased from others, without regard to aircraft withdrawn from service for economic, mechanical, or technical reasons.

Figure 7: Number of Vehicles, 1973 (cont.)

- (40) Supplemental-CAB, Bureau of Accounts and Statistics.
- (43) Water-American Waterways Operators, *Inland Waterborne Commerce Statistics*, 1973, p. 2. This figure represents the sum of self-propelled and non-self-propelled towing vessels and barges in the United States plus the cargo vessels (49), and the passenger liners (44) in the U.S.
- (44) Passenger-Personnel Communication—Maritime Administration. This figure is the number of U.S. passenger liners.
- (49) Cargo—U.S. Department of Commerce, Maritime Administration, Merchant Fleets of the World. This figure represents the sum of U.S. Oceangoing steam and motor ships of 1,000 gross ton and over as of December 31, 1973.
- (52) International Air Carrier—This figure is included in the respective categories of the domestic operations.
- (59) International Water—This figure is included in the respective categories of the domestic operations.

Figure 8: Number of Fatalities, 1973

- (1) Total Transportation-Sum of Domestic and International.
- (2) Domestic-Sum of Highway, Rail, Air, and Water.
- (3) International-U.S. Flag Carriers only. Fatalities in international water transport not available.
- (4) Highway-National Highway Traffic Safety Administration-*Highway Fatality Statistics—December 1973*, p. 2. Figure is for the 50 states and D. C.
- (5) Auto-Sum of Personal Passenger Car, Taxi, and Motorcycle.
- (6) Personal Passenger Car, National Safety Council, *Accident Facts 1974*, p. 56. No. of occupant fatalities.
- (7) Taxi-*Ibid.*, 1974, p. 56. No. of occupant fatalities.
- (8) Motorcycle-*Ibid.*, 1973, p. 56. Fatalities of motorcycles, motor scooters, motor bikes.
- (9) Truck-*Ibid.*, 1974, p. 56. No. of occupant fatalities.
- (14) Bus-*Ibid.*, 1974, p. 75. Passenger fatalities of all buses (intercity, school, and local transit).
- (15) Intercity Bus-*Ibid.*, 1974, p. 75. Passenger fatalities on Class I buses.
- (18) School Bus-*Ibid.*, 1974, p. 56. No. of occupant fatalities.

Figure 8: Number of Fatalities, 1973 (cont.)

- (19) Local Transit-Personnel Communication-American Public Transit Association, Statistical Dept. This figure includes passengers, pedestrians, employees and others for service on surface transit only, excludes all heavy rail and only light rail operating exclusively as rapid transit.
- (24) Rail-U.S. DOT/Federal Railroad Administration, Office of Safety, *Summary and Analysis of Accidents in U.S.*, report No. 142, 1973, p. 5. This figure includes fatalities which occur at rail-highway grade crossings.
- (25) Passenger-*Ibid.*, 1973, p. 4. This figure includes passengers on or getting on or off class I Railroads and AMTRAK passenger-carrying trains.
- (29) Air-Sum of General Aviation and Air Carrier. Includes fatalities of passengers, crew, and others.
- (30) General Aviation-Sum of Business, Air Taxi, Other, Aerial Application, Instructional, Personal & Executive.
- (31) Business-Personal Communication-National Transportation Board, Bureau of Aviation Safety
- (32) Air Taxi-*Ibid.*
- (33) Instructional-*Ibid.*
- (34) Personal-*Ibid.*
- (35) Other-*Ibid.*
- (36) Air Carrier-Sum of Certificated and Supplemental.
- (37) Certificated-Personnel Communication-National Transportation Safety Board, Bureau of Aviation Safety. This figure pertains to domestic operations only.
- (38) Passenger-*Ibid.*
- (39) Cargo-*Ibid.*
- (40) Supplemental-*Ibid.*
- (41) Passenger-*Ibid.*
- (42) Cargo-*Ibid.*
- (43) Water-Personnel Communication-U.S. Coast Guard, Information and Analysis Staff. This figure includes fatalities in recreational boating and in waterborne transport on U.S. Flag Carriers. These fatalities were due to both vessel and non-vessel casualties.
- (44) Passenger-Sum of Private and Passenger Service.
- (45) Private-U.S. Coast Guard, GBD-2, *Boating Statistics (CG-357)*, 1973. This figure represents total fatalities in recreational boating.

Figure 8: Number of Fatalities, 1973 (cont.)

- (46) Inboard-*Ibid.*, 1973.
- (47) Outboard-*Ibid.*, 1973.
- (48) Passenger Service-Personnel Communication-U.S. Coast Guard, Information and Analysis Staff. This figure includes vessel and non-vessel casualties on both large and small passenger vessels and ferries.
- (49) Cargo-*Ibid.*, This figure includes vessel and non-vessel casualties on U.S. cargo vessels.
- (50) Commercial Fishing-*Ibid.*, This figure includes vessel and non-vessel casualties on U.S. commercial fishing vessels.
- (51) Pipeline-Assistant Secretary for Environment, Safety and Consumer Affairs, *Transportation Safety Information Report, Oct., Nov., and Dec. 1974*, Pipeline Section. This figure includes gas distribution and transmission lines (including gathering lines), and liquid transmission lines.
- (52) Air-Carrier-Sum of Certificated and Supplemental. Includes passengers, crew and others on U.S. Flag air carriers on and international flight.
- (53) Certificated-Personnel Communication-National Transportation Safety Board, Bureau of Aviation Safety. This figure pertains to only U.S. flag air carriers on an international flight.
- (54) Passenger-*Ibid.*
- (55) Cargo-*Ibid.*
- (56) Supplemental-*Ibid.*
- (57) Passenger-*Ibid.*
- (58) Cargo-*Ibid.*
- (62) Executive-same source as (31).
- (63) Aerial Application-same source as (31).
- (64) Inboard/Outboard-U.S. Coast Guard, GBD-2, *Boating Statistics CG-357, 1973*.

Table 1: Average Passenger Revenue Per Passenger-Mile, 1963-1973

Certificated air carrier, domestic operations, scheduled service:

CAB, *Air Carrier Traffic Statistics*, Dec. 1972, 1973, p. 1; *Air Carrier Financial Statistics*, Dec. 1972, 1973, p. 1. passenger revenues divided by revenue passenger-miles.

Class I rail:

AAR, *Yearbook of Railroad Facts*, 1974, Total: p. 34; commutation: commutation passenger revenues (p. 14) divided by commutation passenger-miles (p. 32); other than commutation: sum of columns 3 and 4 (p. 14) divided by column 2) p. 32).

Class I intercity bus:

NAMBO, "Get on to something Great", May 1974, p. 19.

Table 2: Average Freight Revenue Per Ton-Mile, 1963-1973

Certificated air carrier domestic operations, scheduled service:

1961-70: CAB, *Handbook of Airline Statistics*, 1971, p. 93, 1972: CAB, *Air Carrier Financial Statistics*, Dec. 1972, 1973. *Air Carrier Traffic Statistics*, Dec. 1972, 1973. Freight revenues divided by revenue ton-miles of freight.

Class I rail:

AAR, *Yearbook of Railroad Facts*, 1974, p. 33.

Class I intercity motor carriers of property, common and contract:

1962-1971: ICC, *Transport Economics*, Feb.-March, 1973, p. 8; 1972 & 1973, called the I.C.C.

Oil pipelines:

1962-1971: ICC, *Transport Economics*, Feb.-March, 1973, p. 8; 1972 & 1973, called the I.C.C.

Classes A and B water carriers, barge lines operating on Mississippi River and tributaries:

1962-1971: ICC, *Transport Economics*, Feb.-March, 1973, p. 8; 1972 & 1973, called the I.C.C.

Table 3: Average Passenger Fare, 1963 - 1973

Certificated air carrier domestic operations, scheduled service:

1961-70: CAB, *Handbook of Airline Statistics*, 1971. Total passenger revenues (p. 210, line 3) divided by revenue passenger enplanements (p. 106, line 20). 1971, 1972, 1973: Total passenger revenues (CAB, *Air Carrier Financial Statistics*, Dec. 1972, 1973, p. 1., column 8, line 3) divided by revenue passenger enplanements (CAB, *Air Carrier Traffic Statistics*, Dec. 1972, 1973, p. 1., column 12, line 17.)

Class I bus, intercity:

NAMBO, "Get on to something Great" May 1974, p. 19.

Local Transit:

ATA, *Transit Fact Book*, '73-'74, p. 11.

Class I rail:

AAR, *Statistics of the Railroads of Class I*, Aug. 1974, p. 7. Commutation, line 19; other than commutation: line 20.

Table 4: Total Operating Revenues, 1963-1973

Certificated air carriers:

1961-70: CAB, *Handbook of Airline Statistics*, 1971. Sum of overall operating revenues in total domestic operations (p. 210) and total international and territorial operations (p. 221). 1971, 1972, 1973: CAB, *Air Carrier Financial Statistics*, Dec. 1972, 1973, p. 1., column 3, line 17.

Supplemental air carriers:

1961-70: CAB, *Handbook of Airline Statistics*, 1971, p. 69. 1972: CAB, *Air Carrier Financial Statistics*, Dec. 1972, p. 101., column 1, line 9, 1973: *Ibid*, Dec. 1973, p. 98, column 1, line 9.

Table 4: Total Operating Revenues, 1963-1973 (cont.)

Intercity bus, Class I:

1960-67: ICC, *84th ICC Annual Report*, 1970, p. 143. 1969-70: ICC, *85th ICC Annual Report*, 1971, p. 127. 1971, 1972, 1973: NAMBO, "Get on to something Great," May 1974, p. 17.

Local Transit:

ATA, *Transit Fact Book*, '73-'74, p. 9. Includes motorbus, subway and elevated surface rail, trolley coach.

Oil pipeline:

TAA, *Transportation Facts and Trends*, April 1975, Quarterly Supplement, Dec. 1974, p. 4.

Class I rail:

AAR, *Yearbook of Railroad Facts*, 1972, p. 9. *Ibid*, 1973, p. 10.

Class I intercity motor carriers of property:

ICC, *88th Annual Report*, 1974, p. 125.

Water:

Classes A and B carriers, inland and coastal waterways: ICC, *87th Annual Report*, 1973, p. 137, and equivalent tables in earlier editions, ICC, *88th Annual Report*, 1974, p. 127.

Maritime carriers:

ICC, *88th Annual Report*, 1974, p. 128, and equivalent tables in earlier editions.

Class A freight forwarders:

1960-67: ICC, *84th Annual Report*, 1970, p. 151; 1968-1971: ICC, *87th ICC Annual Report*, 1973, p. 139, *88th ICC Annual Report*, 1974, p. 129.

Table 5: Vehicle-Miles, 1963-1973

Air carriers:

Certificated-CAB, *Handbook of Airline Statistics*, 1971, p. 106. Aircraft revenue miles in scheduled service (line 35) plus nonscheduled service (line 56); 1971: CAB, *Air Carrier Traffic Statistics*, December 1972, p. 1., Aircraft revenue miles in scheduled service (line 31) plus nonscheduled service (line 50). Supplemental-CAB, *Handbook of Airline Statistics*, 1971, p. 199; 1972: CAB, *Air Carrier Traffic Statistics* (line 21), p. 43, Dec. 1972, *Ibid*, p. 51, Dec. 1973.

General Aviation:

FAA, *Statistical Handbook of Aviation*, Table 8.5, 1973 edition.

Highway:

Passenger car and taxi-FHWA, *Highway Statistics*, annual editions, table VM-1, p. 52.

Truck-Same source as passenger car and taxi.

School bus-Same source as passenger car and taxi.

Intercity bus-NAMBO, "Get on to something Great," May 1974, p. 16.

Local Transit:

ATA, *Transit Fact Book*, 1973-74, p. 15.

Table 5: Vehicle-Miles, 1963-1973 (cont.)

Class I rail:

AAR, *Yearbook of Railroad Facts*, 1974. Freight train-miles, p. 37; passenger train-miles, p. 39.

Table 6: Passenger-Miles, 1963-1973

Air Carrier:

Certificated-CAB, *Handbook of Airline Statistics*, 1969 and 1971, p. 106. Sum of total domestic passenger-miles in scheduled service (line 11) and nonscheduled service (line 47); 1972, 1973 CAB, *Air Carrier Traffic Statistics*, Dec. 1972, 1973, p. 1. Sum of lines 9 and 43. Supplemental-CAB, *Handbook of Airline Statistics*, 1971, p. 199; 1972, 1973, CAB, *Air Carrier Traffic Statistics*, Dec. 1972, line 4, p. 43. *Ibid*, p. 51, Dec. 1973.

General Aviation:

TAA, *Transportation Facts and Trends*, Oct. 1972, p. 18. Quarterly supplement, July 1974, p. 18.

Highway:

Passenger Car and taxi-FHWA vehicle-miles multiplied by a constant average occupancy of 2.2. Intercity bus-TAA, *Transportation Facts and Trends*, Oct. 1974, p. 18.

Class I rail:

AAR, *Yearbook of Railroad Facts*, 1974, Total: = commutation passenger-miles and other than commutation: p. 32.

Domestic water:

TAA, *Transportation Facts and Trends*, Oct. 1974, p. 18.

Table 7: Cargo Ton-Miles, 1963-1973

Air Carrier:

Certificated-CAB, *Handbook of Airline Statistics*, 1969 and 1971, p. 106. Sum of revenue ton-miles of freight, express, U.S. and foreign mail (lines 2, 3 and 4). 1972-1973-CAB, *Air Carrier Traffic Statistics*, Dec. 1972, 1973, p. 1. Sum of lines 2, 3 and 4. Supplemental-CAB, *Air Carrier Traffic Statistics*, Dec. 1972, p. 43. *Ibid*, p. 51, 1973.

Oil Pipeline:

ICC, *88th Annual Report*, 1974, p. 120 and equivalent tables in earlier editions.

Class I rail:

AAR, *Yearbook of Railroad Facts*, 1974, p. 29.

Motor vehicles:

ICC, *88th Annual Report*, 1974, p. 120 and equivalent tables in earlier editions.

Inland waterways including Great Lakes:

ICC, *88th Annual Report*, 1974, p. 120 and equivalent tables in earlier editions.



Table 7: Cargo Ton-Miles, 1963-1973 (cont.)

Total domestic waterways:

U.S. Army Corps of Engineers, *Waterborne Commerce of the U.S.*, Part 5, 1973, p. 93.

Table 8: Basic Intercity Mileage Within the Continental United States, 1963-1973

Railroads, all line haul:

AAR, *Yearbook of Railroad Facts*, 1974, p. 48. Data represent aggregate length of roadway of all line-haul railroads, excluding mileage of yard tracks or sidings. Jointly used track is counted only once.

Oil pipelines:

TAA, *Transportation Facts and Trends*, Oct. 1974, p. 31.

Inland waterways:

American Waterways Operators, *Inland Waterborne Commerce Statistics*, Oct. 1974, p. 1.

Highways:

For 1973: FHWA, *Highway Statistics*, 1973, table SM-2, p. 174. Total surfaced mileage of State primary and secondary roads, less col. D-E mileage, plus total toll facility mileage, with Alaska and Hawaii mileage deleted. Earlier years from earlier editions of *Highway Statistics*.

Airways:

TAA, *Transportation Facts and Trends*, Oct. 1974, p. 31.

Table 9: Number of Vehicles, 1963-1973

Air Carrier:

CAB, Bureau of Accounts and Statistics.

General Aviation:

FAA, *Statistical Handbook of Aviation*, table 8.6, 1973 edition.

Passenger car, taxi, and motorcycle:

FHWA, *Highway Statistics*, 1973, table MV-1, p. 32, and same table in earlier editions.

Intercity bus:

NAMBO, "Get on to something Great", May 1974, p. 16.

Local transit:

ATA, *Transit Fact Book*, '73-'74, p. 19.

Class I rail:

AAR, *Yearbook of Railroad Facts*, 1974, Locomotives, (p. 50), freight cars (p. 51), passenger cars, and pullman (p. 54).

Truck:

FHWA, *Highway Statistics*, 1973, table VM-1, p. 52, and same table in earlier editions.

Table 9: Number of Vehicles, 1963-1973 (cont.)

Water vessels:

American Waterways Operators, *Inland Waterborne Commerce Statistics*, Oct. 1974, p. 2.

Table 10: Personal Consumption Expenditures by Transportation Sector, 1963-1973

U.S. Department of Commerce, Office of Business Economics, *The National Income and Product Accounts of the United States*, 1929-1965, table 2.6, 1966-1972 are from (p. 29), table 2.5 in the July 1973 issue of "*The Survey of Current Business*", 1971-1972 revisions and 1973 are from (p. 24) table 2.5 in the July, 1974 issue of "*The Survey of Current Business*".

Table 11: Personal Consumption Expenditures by Type of Product, 1963-1973

U.S. Department of Commerce, Office of Bureau Economics, *The National Income and Product Accounts of the United States*, 1929-1965, and 1966-1972 are from (p. 29), table 2.5 in the July 1973 issue of "*The Survey of Current Business*", 1971-1972 revisions and 1973 are from (p. 24) table 2.5 in the July, 1974 issue of "*The Survey of Current Business*".

Table 12: National Income by Transportation Sector, 1963-1973

U.S. Department of Commerce, Office of Business Economics, *The National Income and Product Accounts of the United States*, 1929-1965, and 1966-1972 are from (p. 22), table 1.12 in the July 1973 issue of "*The Survey of Current Business*", 1971-1972 revisions and 1973 are from (p.17) table 1.12 in the issue of "*The Survey of Current Business*".

Table 13: Average Annual Earnings Per Full-Time Employees by Transportation Sector, 1963-1973

U.S. Department of Commerce, Office of Business Economics, *The National Income and Product Accounts of the United States*, 1929-1965, table 6.5, 1966-1972 are from (p. 42), table 6.5 in the July 1973 issue of "*The Survey of Current Business*", 1971-1972 revisions and 1973 are from (p. 37) table 6.5 in the July 1974 issue of "*The Survey of Current Business*".

Table 14: Average Annual Number of Full-Time and Part-Time Employees by Transportation Sector, 1963-1973

U.S. Department of Commerce, Office of Business Economics, *The National Income and Product Accounts of the United States*, 1929-1965, table 6.3, 1966-1972 are from (p. 41), table 6.3 in the July 1973 issue of "*The Survey of Current Business*", 1971-1972 revisions and 1973 are from (p.36) table 6.3 in the July 1974 issue of the "*The Survey of Current Business*".

Table 15: Wages and Salaries by Transportation Sector, 1962-1972

U.S. Department of Commerce, Office of Business Economics, *The National Income and Product Accounts of the United States*, 1929-1965, table 6.2. 1966-1972 are from (p. 41), table 6.2 in the July 1973 issue of "*The Survey of Current Business*", 1970-1972 revisions and 1973, are from (p. 36) table 6.2 in the July 1974 issue of the "*Survey of Current Business*".

Table 16: Theft-Related Losses of Selected Commodities for Class I Motor  
Common Carriers of General Freight

Quarterly Freight Loss and Damage Claims, Schedule A, Loss and Damage Claims Paid, reported by Common and Contract Motor Carriers of Property, Interstate Commerce Commission.

Table 17: Fuel Consumption by Mode, 1963-1973

Class I rail:

AAR, *Statistics of Class I Railroads*, 1963-73, Aug. 1974, p. 15.

Air carriers:

CAB, *Handbook of Airline Statistics*, 1973, pp. 66, 67.

General Aviation:

FAA, *Statistical Handbook of Aviation*, 1972, table 9.12 and Personal Communication for 1973 data.

Highway:

FHWA, *Highway Statistics*, 1973, table VM-1, p. 52, and same table in earlier editions.

Vessels:

Residual-API, Bureau of Mines, Technical Info. — Personal Communication

Distillate-*Ibid.*

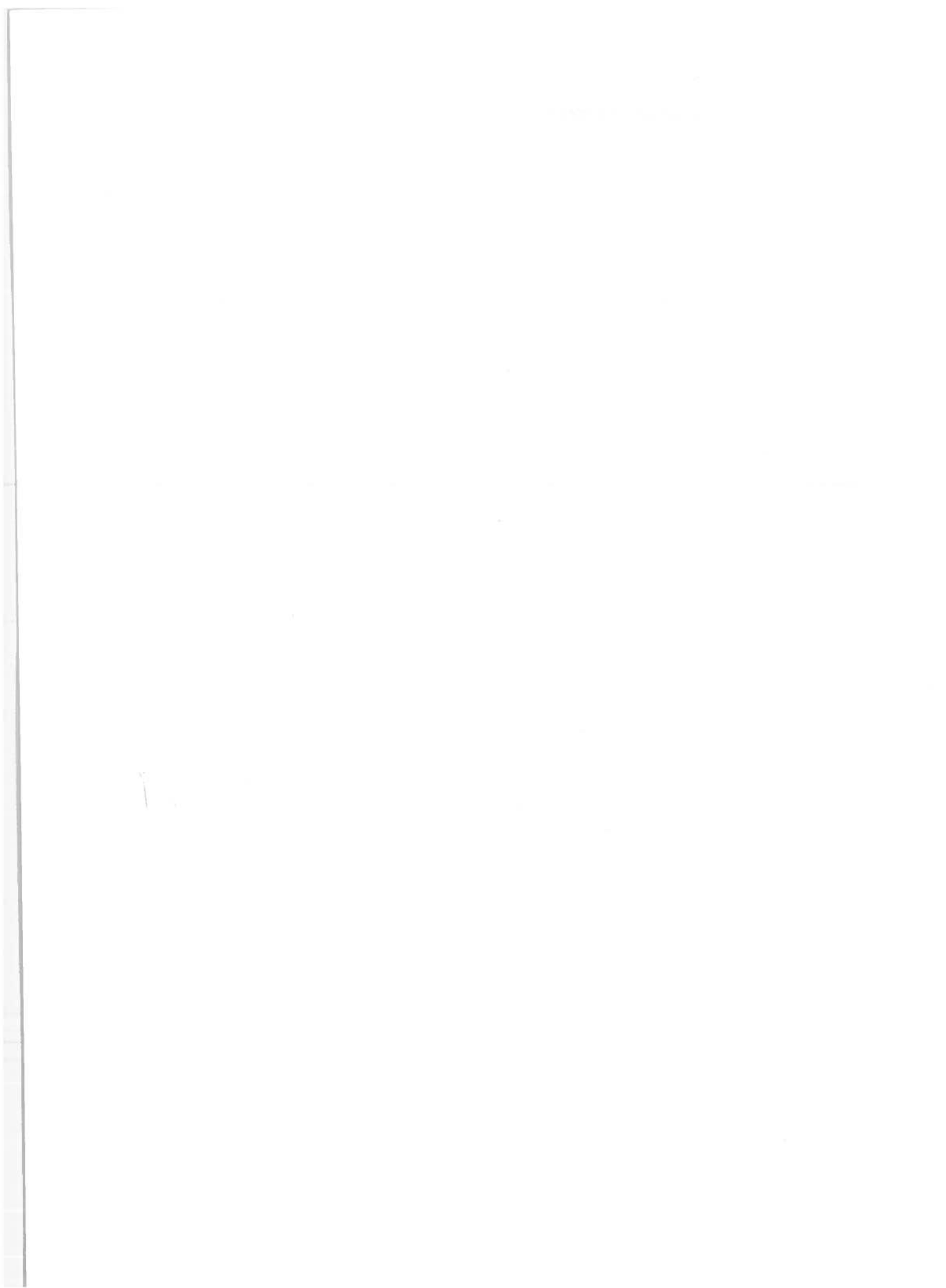
Gasoline-FHWA; *Highway Statistics*, 1973, table MF-24, p. 8, and same table in earlier editions.

Transit:

ATA, *Transit Fact Book*, '73-'74, p. 19.

Pipelines:

American Gas Association, *1973 Gas Facts*, 1974, Table 77, p. 92.



**APPENDIX B**  
**Glossary**

1915

## GLOSSARY

### Air Carrier Terminology

#### OPERATING REVENUES:

Revenues from the performance of air transportation and related incidental services. Includes:

- (1) *transport* revenues from the carriage of all classes of traffic in scheduled and non-scheduled services including aircraft charters; thus passenger, freight, express, mail, excess baggage, and other transport revenues are included.
- (2) *nontransport* revenues consist of Federal subsidy (where applicable) and the net amount of revenues less related expenses from services incidental to air transportation.

#### CERTIFICATED CARRIER:

One of a class of air carriers holding certificates of public convenience and necessity issued by the CAB, authorizing the performance of scheduled air transportation over specified routes and a limited amount of nonscheduled operations. This general carrier grouping includes the all-purpose carriers (i.e., the so-called passenger/cargo carriers) and the all-cargo carriers, and comprises all of the airlines certificated by the Board, except the supplemental air carriers. Certificated route air carriers are often referred to as "scheduled airlines," although they also perform nonscheduled service.

#### DOMESTIC OPERATIONS:

Operations within and between the 50 States and the District of Columbia. Includes domestic operations of the certificated trunk carriers and Pan American and the local service, helicopter, intra-Alaska, intra-Hawaii, domestic all-cargo and other carriers, also includes transborder operations conducted on the domestic route segments of U.S. air carriers.

#### INTERNATIONAL OPERATIONS:

Operations outside the territory of the United States, including operations between the United States and foreign countries and between the United States and its territories and possessions. Includes both the combination passenger/cargo carriers and the all-cargo carriers engaged in international and territorial operations.

#### SUPPLEMENTAL AIR CARRIER:

One of a class of air carriers now holding certificates, issued by the CAB, authorizing them to perform passenger and cargo charter services supplementing the scheduled service of the certificated route air carriers. Supplemental air carriers are often referred to as "nonskeds," i.e., non-scheduled carriers.

#### OPERATING EXPENSES:

Expenses incurred in the performance of air transportation; which includes direct aircraft operating expenses and ground and indirect operating expenses.

#### AIRCRAFT REVENUE MILES:

The miles (computed in airport-to-airport distances) for each interairport hop actually completed in revenue service, whether or not performed in accordance with the scheduled pattern. For this purpose, operation to a flag stop is a hop completed even though a landing is not actually made. In cases where the interairport distances are inapplicable, aircraft miles flown are determined by multiplying the normal cruising speed for the aircraft type by the airborne hours.

**SCHEDULED SERVICE:**

Transport service operated over an air carrier's certificated routes, based on published flight schedules, including extra sections and related nonrevenue flights.

**NONSCHEDULED SERVICE:**

Revenue flights, such as charter flights, that are not operated in regular scheduled service and all nonrevenue flights incident to such flights.

**REVENUE PASSENGER-MILE:**

One revenue passenger transported 1 mile in revenue service. Revenue passenger-miles are computed by summation of the products of the revenue aircraft-miles flown on each interairport flight stage multiplied by the number of passengers carried on that flight stage.

**REVENUE PASSENGER LOAD FACTOR:**

The percent that revenue passenger-miles are of available seat-miles in revenue passenger services, presenting the proportion of aircraft seating capacity that is actually sold and utilized.

**REVENUE TON-MILE OF FREIGHT:**

One short ton of freight transported 1 statute mile. Ton-miles are computed by summation of the products of the aircraft-miles flown on each interairport flight stage multiplied by the number of tons carried on that flight stage.

**AIRBORNE SPEED:**

Often called "wheels-off wheels-on speed." The average speed of an aircraft while airborne, computed using great-circle airport-to-airport distance.

**Highway Terminology**

**FEDERAL EXPENDITURES:**

Intergovernmental payments to the States, District of Columbia, and local governments plus direct expenditures for capital outlay, maintenance, administration, and research.

**STATE AND LOCAL EXPENDITURES:**

Disbursements for capital outlay, maintenance and traffic surfaces, administration, and research, highway law enforcement and safety, and interest on debt.

**RURAL MILEAGE:**

Roads outside city, municipal district, or urban boundaries.

**STATE PRIMARY SYSTEM:**

This refers to highways that have been so officially designated by States. They encompass the principal intercounty, intercity and interstate roads of all States.

**STATE SECONDARY ROADS:**

This mileage is reported in the tables for the States (taken from the Highway Statistics 1970 Bulletin) that have designated both a primary and a secondary system.



#### **MUNICIPAL MILEAGE:**

Roads inside city, municipal district, or urban boundaries: includes extensions of the state primary system, and state secondary roads within delimited incorporated and unincorporated places, and mileage under local control, e.g., local city streets, roads, and public ways not under State control within such places.

#### **Automobile Terminology**

#### **REVENUES - TAXI:**

Fares paid by passengers riding in taxis.

#### **VEHICLE-MILES (BY TYPE OF STREET):**

These figures represent the total number of miles traveled by passenger cars, taxis, and motorcycles on the different types of streets. One vehicle traveling 1 mile generates 1 vehicle-mile.

#### **VEHICLE-MILES:**

Automobile vehicle-miles are estimated by calculating the number of gallons of gas sold from gasoline tax receipts and multiplying by the average number of miles per gallon.

#### **PASSENGER-MILES:**

This figure represents the total distance traveled by all passengers in passenger cars and taxis. One passenger traveling 1 mile generates 1 passenger-mile.

#### **URBAN STREETS:**

Streets within urban boundaries.

#### **MAIN RURAL ROADS:**

Streets outside urban boundaries that are generally recognized as principal arteries of travel.

#### **LOCAL RURAL ROADS:**

Streets outside urban boundaries other than principal arteries of travel.

#### **Bus Terminology**

#### **EXPENDITURES - SCHOOL BUS:**

This is the total expenditure for operation, maintenance, insurance, depreciation, operating taxes, licenses, and operating rents for vehicles used as school buses.

#### **INTERCITY BUS - TOTAL:**

This figure includes Class I, II, and III interstate carriers, all of which report to the Interstate Commerce Commission, and intrastate carriers.

#### **INTERCITY BUS - CLASS I:**

An interstate motor carrier of passengers with an average annual gross revenue of at least 1,000,000 is defined by the ICC as a Class I carrier.

**VEHICLE-MILE:**

One vehicle traveling 1 mile generates 1 vehicle-mile. Total vehicle-miles, thus, gives the total mileage traveled by all vehicles.

**COMMERCIAL BUS:**

Any bus used to carry passengers at rates specified in tariffs; charges may be computed per passenger (as in regular route service) or per vehicle (as in charter service).

**SCHOOL AND NONREVENUE BUS:**

Passengers using these are not directly charged for transportation, either on a "per passenger" or on a "per vehicle" basis.

**REVENUE PASSENGER-MILES:**

One revenue passenger carried 1 mile generates 1 passenger-mile. The revenue passenger miles reported thus represent the total distance traveled by all bus passengers.

**REVENUE PASSENGERS:**

Passengers on a commercial bus by or for whom a fare is paid.

**Truck Terminology****REVENUE:**

The total amounts received by carriers for transportation and other services.

**ICC-REGULATED CARRIER:**

A motor common carrier operating in interstate commerce under a grant of authority from the Interstate Commerce Commission and subject to its economic regulation.

**NON-ICC-REGULATED CARRIER:**

A motor carrier not subject to the economic regulation of the ICC. The category includes intrastate carriers, private carriers hauling only the goods of their owners, and carriers of commodities, the transportation of which is exempt from ICC economic regulation.

**OPERATING REVENUES OF CLASS I INTERCITY MOTOR CARRIERS:**

This term is defined by the ICC to include the five categories of revenue listed in the text.

**OPERATING EXPENSES:**

This includes expenditures for equipment maintenance, supervision, wages, fuel, equipment rental, terminal operations, insurance, safety, and administrative and general functions.

**VEHICLE-MILES:**

This term includes miles operated by power units upon urban streets, main rural roads, and local rural roads.

**TON-MILES:**

The transportation of 1 ton of freight a distance of 1 mile generates 1 ton-mile.

**AVERAGE LENGTH OF HAUL (MILES):**

The total number of ton-miles divided by the total number of tons carried.

**Local Transit Terminology****PASSENGER REVENUE:**

The total of all moneys paid by passengers to ride on scheduled trips. This includes single trip fares, and charges for transfers, weekly, monthly, and other unlimited-usage tickets.

**OPERATING REVENUE:**

Includes passenger revenue and revenue from charter and contract services.

**OPERATING EXPENSES:**

These expenditures include outlays for maintenance, wages, fuel, licensing, insurance, rent, safety, operating taxes, and station operations.

**REVENUE VEHICLE-MILES:**

One vehicle (bus, trolley car, subway car, etc.) traveling 1 mile while revenue passengers are on board generates 1 revenue vehicle-mile. The revenue vehicle-miles reported thus represent the total mileage traveled by vehicles in scheduled or unscheduled revenue-producing services.

**SUBWAY AND ELEVATED:**

Rail rapid transit services.

**SURFACE RAIL:**

Street car or trolley car operations, including private right-of-way operations, typified by low platform stations, one-man operation at all times, capability for on-board fare collection, actual on-board fare collection most of the time.

**TROLLEY COACH:**

A vehicle with the steering capability of a motor coach, running on rubber tires, but drawing power from electric overhead wires.

**Water Transport Terminology****DOMESTIC FREIGHT:**

All waterborne commercial movements between points in the United States, Puerto Rico and the Virgin Islands, excluding traffic with the Panama Canal Zone. Cargo moved for the military on commercial vessels is reported as ordinary commercial cargo; military cargo moved in military vessels is omitted.

#### INTERNATIONAL (FOREIGN) FREIGHT:

Movements between the United States and foreign countries and between Puerto Rico, the Virgin Islands and foreign countries. Trade between U.S. territories and possessions (i.e., Guam, Wake, American Samoa, etc.) and foreign countries is excluded. Traffic to or from the Panama Canal Zone is included.

#### COASTWISE TRAFFIC:

Domestic traffic is coastwise when it moves over the ocean, or the Gulf of Mexico, e.g., between New Orleans and Baltimore, New York and Puerto Rico, San Francisco and Hawaii, Puerto Rico and Hawaii. Traffic between Great Lakes ports and seacoast ports, when having a carriage over the ocean, is also deemed to be coastwise. The Chesapeake Bay and Puget Sound are considered internal bodies of water rather than arms of the ocean; traffic confined to these areas is deemed to be "internal" rather than coastwise.

#### INTERNAL TRAFFIC:

Traffic is internal when the entire movement between ports or landings takes place on inland waterways. The following types of movements are also termed internal: movements involving carriage on both inland waterways and waters of the Great Lakes, inland movements that cross short stretches of open waters that link inland systems; marine products, sand and gravel taken directly from beds of the oceans, the Gulf of Mexico and important arms thereof; and movements between offshore installations and inland waterways.

#### LAKEWISE OR GREAT LAKES:

These terms apply to traffic between U.S. ports on the Great Lakes system. The Great Lakes system is treated as a separate system rather than as a part of the inland system.

#### INLAND AND COASTAL WATERWAYS INLAND AND COASTAL CHANNELS

These terms include the Atlantic Coast Waterways, the Atlantic Intracoastal Waterway, the New York State Barge Canal System, the Gulf Coast Waterways, the Gulf Intracoastal Waterway, the Mississippi River System (including the Illinois Waterway), Pacific Coast Waterways, the Great Lakes, and all other channels (waterways) of the United States, exclusive of Alaska, that are usable for commercial navigation.

#### IMPORTS:

Inbound international freight.

#### EXPORTS:

Outbound international freight including re-export of foreign merchandise.

#### LOCAL:

Movements of freight within the confines of a port, whether the port has only one or several arms or channels, except car-ferry and general ferry, are termed "local." The term is also applied to marine products, sand, and gravel taken directly from the Great Lakes.

#### DOMESTIC PASSENGER:

Any person traveling on a public conveyance by water between points in the United States, Puerto Rico, and the Virgin Islands.

**CLASS A CARRIERS BY INLAND AND COASTAL WATERWAYS:**

A class A carrier by water is one with an average annual operation revenue that exceeds \$500,000.

**CLASS B CARRIERS BY INLAND AND COASTAL WATERWAYS:**

A class B carrier by water is one with an average annual operating revenue greater than \$100,000 but less than \$500,000.

**INTERNATIONAL PASSENGER:**

Any person traveling on a waterborne public conveyance between the United States and foreign countries and between Puerto Rico and the Virgin Islands and foreign countries.

**MARITIME:**

Maritime carriers operate on the open sea, i.e., their operations must include a foreign or international component, and may include a domestic component.

**MARITIME REVENUE:**

Revenue received for operations in international or foreign shipping.

**NON-SELF-PROPELLED:**

Vessels not containing within themselves the means for their own propulsion.

**DRY CARGO BARGES:**

Large, flat-bottomed non-self-propelled vessels used to transport dry bulk materials such as coal and ore.

**COWS:**

Large, flat-bottomed non-self-propelled vessels used to transport sand, gravel, or refuse.

**TANK BARGES:**

Large, flat-bottomed non-self-propelled vessels used to transport fluids such as oil.

**SELF-PROPELLED TOWBOAT:**

A compact, shallow-draft boat with a squared bow and towing "knees" for pushing tows of barges on inland waterways.

**TUG:**

A strongly built boat used for towing and pushing, self-propelled.

**INTRATERRITORIAL TRAFFIC:**

Traffic between ports in Puerto Rico and the Virgin Islands, which are considered as a single unit.

**TONS OF FREIGHT HAULED:**

The figures for tons of freight hauled on domestic waterways include exports and imports.

## Railroad Terminology

### CLASS I RAILROAD:

A railroad with an annual operating revenue of greater than \$5,000,000.

### COMMUTATION TICKET:

A ticket intended for use by a person traveling on a daily basis, i.e., to and from work; such a ticket is typically valid for an extended time period (i.e., a week or a month); the charge for such a ticket reflects a discount from the sum of the one-way fares that would be paid by the ticket-holder for the period of validity in the absence of such a reduced-rate ticket.

### PASSENGER REVENUE - COMMUTATION:

Revenue from the sale of commutation tickets.

### PASSENGER REVENUE - OTHER THAN COMMUTATION:

Revenue from the transportation of paying passengers not holding commutation tickets; this classification includes basic one-way and round trip fares, discounted fares offered for the clergy and military, special excursion fares offered to travelers meeting the requirements for eligibility for those fares, (i.e., origin/destination, time of travel, length of stay at destination), revenue from the extra charges made for occupancy of space in parlor and sleeping cars, and revenue from the transportation of corpses.

### FREIGHT REVENUE:

Revenue from the transportation of freight and from the exercise of transit, stop-off, diversion, and reconsignment privileges, as provided for in tariffs.

### MAIL REVENUE:

Revenue from the transportation of mail at established rates, and for services and facilities provided in connection with the handling of U.S. mail.

### EXPRESS REVENUE:

Revenue from transportation of express shipments and from the use of facilities on trains and at stations incidental to such transportation.

### OTHER REVENUE:

This is a general heading that includes revenues from miscellaneous operations (i.e., dining and bar car services), income from lease of road and equipment, miscellaneous rent income, income from non-operating property, profit from separately operated properties, dividend income, interest income, income from sinking and other reserve funds, release or premium on funded debt, contributions from other companies, and other miscellaneous income.

### OPERATING EXPENSES:

Expenses of furnishing transportation service including maintenance and depreciation.

#### PASSENGER TRAIN CARS:

Cars typically found in passenger trains include coaches, sleeping cars (formerly called Pullman cars), parlor cars, dining cars, lounge cars, baggage cars, crew-dormitory cars, and observation cars.

#### LOCOMOTIVES:

Self-propelled units of equipment designed solely for moving other equipment.

#### LINE MILEAGE:

The aggregate length of roadway of all line-haul railroads. It does not include the mileage of yard tracks or sidings, nor does it reflect the fact that a mile of railroad may include two or more parallel tracks. Jointly-used track is counted only once.

#### CAR MILEAGE:

Movement of a car 1 mile is a car-mile.

#### TRAIN MILEAGE:

Movement of a train 1 mile is a train-mile; the number of cars in the train is irrelevant.

#### LOCOMOTIVE MILEAGE:

Movement of a locomotive unit 1 mile is a locomotive-mile.

#### REVENUE PASSENGERS CARRIED - COMMUTATION:

Number of one-way trips made by persons holding commutation tickets.

#### REVENUE PASSENGERS CARRIED - OTHER THAN COMMUTATION:

Number of one-way trips by passengers paying their fares at other than commutation ticket rates; this excludes passengers lawfully traveling without paying.

#### REVENUE PASSENGER-MILE:

One revenue passenger traveling 1 mile generates 1 revenue passenger-mile. The revenue passenger-miles reported thus represent the total distance traveled by all railroad passengers.

#### AVERAGE PASSENGER TRIP LENGTH:

Calculated by dividing the number of revenue passengers by the number of passengers carried.

#### REVENUE TON-MILES:

The product of weight of the contents of a freight car in tons and the distance transported  $n$  miles; i.e.,  $n$  tons moving  $m$  miles generate  $n \times m$  ton-miles.

#### AVERAGE HAUL:

The average distance in miles that 1 ton was carried. It is computed by dividing the number of ton-miles generated by the number of tons carried to generate that number of ton-miles.

## Oil Pipeline Terminology

### **ICC-REGULATED PIPELINE:**

A pipeline company operating in interstate commerce under a grant of authorization from the Interstate Commerce Commission, and subject to economic regulation by the Commission. Such a pipeline company is required to report relevant statistics to the ICC.

### **NON-REGULATED PIPELINE:**

A pipeline company not operating as a common carrier in interstate commerce, hence neither required to secure a grant of operating authority from the Commission nor to report to it.

### **OPERATING REVENUE:**

Revenue from the transportation of oil and from services incidental to such transportation.

### **OPERATING EXPENSES:**

Expenditures necessarily made while providing services by which operating revenue is earned.



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