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DOT-TSC-RSPA-87-6



U.S. Department of Transportation

Research and Special Programs Administration

National Transportation Statistics

Annual Report

August 1987

- ★ Air Carrier
- ★ General Aviation
- ★ Modal Profiles
- ★ Passenger Miles



- ★ Truck ★ Highway
- ★ Bus ★ Transportation Energy
- ★ Cargo Operation
- ★ Vehicle Miles



- ★ Railroads
- ★ Cost Data ★ Amtrak
- ★ Operating Expenses / Revenue
- ★ Local Transit



- ★ Automobile
- ★ Performance Indicators
- ★ Economic Data
- ★ Inventory



- ★ Water Transit
- ★ Recreational Boating
- ★ Transportation Trends
- ★ Safety Statistics



- ★ Oil Pipeline
- ★ Natural Gas Pipeline
- ★ Energy Cost and Consumption
- ★ Pipeline Mileage



Transportation Systems Center

**NATIONAL
TRANSPORTATION
STATISTICS**

Annual Report, 1987

Secretary of Transportation

Elizabeth H. Dole

Research and Special Programs Administrator

M. Cynthia Douglass

Technical Report Documentation Page

1. Report No. DOT-TSC-RSPA-87-6		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle NATIONAL TRANSPORTATION STATISTICS Annual Report, 1987				5. Report Date August 1987	
7. Author(s) Kathleen Bradley, 617-494-2614/FTS-837-2614				6. Performing Organization Code TSC/DTS-32	
9. Performing Organization Name and Address U.S. Department of Transportation Research and Special Programs Administration Transportation Systems Center, Center for Transportation Information, Cambridge, MA 02142				8. Performing Organization Report No. DOT-TSC-RSPA-87-6	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Research and Special Programs Administration Office of Budget and Programs Washington, D.C. 20590				10. Work Unit No. (TRAIS) RS709/P7009	
				11. Contract or Grant No.	
15. Supplementary Notes				13. Type of Report and Period Covered Annual Report, 1955-1985/86	
				14. Sponsoring Agency Code DMA-20	
16. Abstract This report is a summary of selected national transportation statistics from a wide variety of government and private sources. Featured in the report 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, oil pipeline, and natural gas pipeline. The report illustrates basic descriptors of U.S. transportation, such as operating revenues and expenses, number of vehicles and employees, vehicle miles and passenger miles, etc. Supplementary sections include Transportation and the Economy; Energy in Transportation which is divided into Energy Consumption, Energy Intensity, Energy Transport, and Energy Supply and Demand; and Results of Nationwide Personal Transportation Study (NPTS). Also included are the operating costs of automobiles of different sizes. In this edition, the selected data cover the period 1955 through 1985/1986.					
17. Key Words Statistics, Transportation Energy Cost, Inventory, Performance, Passenger/Cargo Operations, Operating Expenses/Revenues, Employees, Number of Vehicles, Passenger/Vehicle Miles				18. Distribution Statement For sale by the Superintendent of Documents U.S. Government Printing Office Washington, D.C. 20402	
9. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages 238	22. Price

TABLE OF CONTENTS

	Page
INTRODUCTION.....	1
TREE DISPLAYS, 1985.....	3
MODAL PROFILES.....	11
Modal Profile Source References and Percent Change Calculation.....	11
Air Carrier Profile.....	12
General Aviation Profile.....	18
Highway Profile.....	20
Automobile Profile.....	22
Bus Profile.....	25
Truck Profile.....	28
Local Transit Profile.....	31
Water Transport Profile.....	34
Rail Profile, A. Class I Railroads.....	37
Rail Profile, B. Amtrak.....	39
Oil Pipeline Profile.....	40
Natural Gas Pipeline Profile.....	41
SELECTED PASSENGER and CARGO PERFORMANCE INDICATORS by MODE.....	43
TRANSPORTATION TRENDS.....	49
Section I: Performance.....	49
Section II: Safety.....	71
Section III: Sales and Production.....	77
SUPPLEMENTARY DATA.....	81
Section I: Transportation and the Economy, 1975-1986.....	81
Section II: Energy in Transportation.....	97
Part 1. Energy Consumption.....	99
Part 2. Energy Intensiveness.....	123
Part 3. Energy Transport.....	133
Part 4. Energy Supply and Demand.....	147
Section III: Results of Nationwide Personal Transportation Study (NPTS).....	163
APPENDIX A - Source Information.....	A-1
● Figure References.....	A-2
● Profile References.....	A-13
● Table References.....	A-15
APPENDIX B - Glossary.....	B-1
APPENDIX C - Index.....	C-1
APPENDIX D - Bibliography.....	D-1
CONVERSION FACTORS.....	Inside Backcover

TABLES (cont'd)

Table	Page
Section II: Energy in Transportation	
Part I. Energy Consumption	
29.	Consumption of Energy by End-Use Sector, 1955-1986..... 100
30.	Coal Consumption by End-Use Sector, 1955-1986..... 101
31.	U.S. Energy Consumption by the Transportation Sector, 1955-1986..... 102
32.	U.S. Government Energy Use, Fiscal Years 1975-1986..... 104
33.	U.S. Government Energy Use by Agency, by Source, Fiscal Years 1976 and 1986..... 105
34.	Fuel Consumption by Mode of Transportation, 1975-1985..... 106
35.	Fuel Consumption by Certificated Air Carriers, 1975-1985..... 107
36.	Total Motor Vehicle Fuel Consumption and Travel, 1975-1985..... 108
37.	Fuel Consumption and Travel by Personal Passenger Vehicles, 1975-1985..... 109
38.	Fuel Consumption and Travel by Buses, 1975-1985..... 110
39.	Fuel Consumption and Travel by Motor Trucks, 1975-1985..... 111
40.	Motor Fuel and Total Energy Consumption by the U.S. Transit Industry, 1955-1985... 112
41.	Average Retail Price of Transportation Fuel, (¢ per gal), 1975-1986..... 113
42.	Average Energy Prices by Transportation Sector and Energy Source, 1970-1984..... 114
43.	Price Trend of Gasoline vs. Other Consumer Goods and Services, 1955-1986..... 115
44.	Average Fuel Efficiency of U.S. Passenger Cars, 1955-1985..... 116
45.	Model Year Sales, Market Shares, and Sales-Weighted Fuel Economies of Domestic and Import Automobiles, Model Years 1978-1986..... 118
46.	Model Year Sales, Market Shares, and Sales-Weighted Fuel Economies of Domestic and Import Trucks, Model Years 1978-1986..... 119
Part 2. Energy Intensiveness	
47.	Energy Intensiveness of Certificated Air Carriers, 1975-1985..... 124
48.	Energy Intensiveness of General Aviation, 1975-1985..... 125
49.	Energy Intensiveness of Automobile and Motorcycles, 1975-1985..... 126
50.	Energy Intensiveness of Trucks, 1975-1985..... 127
51.	Energy Intensiveness of Local Transit Buses and School Buses, 1975-1985..... 128
52.	Energy Intensiveness of Class I Intercity Buses, 1975-1985..... 129
53.	Energy Intensiveness of Class I Railroad Freight, 1975-1985..... 129
54.	Energy Intensiveness of Amtrak Service, 1975-1985..... 130
Part 3. Energy Transport	
55.	Energy Transported by Foreign and Domestic Waterborne Commerce, by Type of Traffic and Commodity, 1985..... 134
56.	Crude Oil Transported in the U.S. by Mode of Transportation, 1975-1985..... 136
57.	Refined Petroleum Products Transported in the U.S., 1975-1985..... 137
58.	Crude Petroleum and Petroleum Products Transported in the U.S. by Method of Transportation, 1975-1985..... 138
59.	Pipeline Shipments of Energy, 1975-1985..... 140
60.	U.S. Petroleum Pipeline Mileage, 1970-1985..... 141
61.	U.S. Gas Utility Industry Miles of Pipeline and Main, by Type, 1955-1985..... 142
62.	World Tanker Fleet by Size, 1975-1986..... 143
63.	World Tanker Fleet by Flag, 1975-1986..... 144
64.	U.S. Tank Ship Fleet, 1955-1986..... 146

ILLUSTRATIONS

Figure

Page

TREE DISPLAYS

1.	Expenditures and Revenues (\$ millions) - 1985.....	4
2.	Vehicle-Miles (millions) - 1985.....	5
3.	Passenger-Miles (millions) - 1985.....	6
4.	Revenue Ton-Miles of Freight (millions) - 1985.....	7
5.	Number of Vehicles - 1985.....	8
6.	Number of Fatalities - 1985.....	9
7.	Energy Consumed in Transportation (10 ¹² BTU) - 1985.....	10

TRANSPORTATION TRENDS

Section I: Performance

8.	Average Passenger Revenue per Passenger-Mile, 1975-1985.....	51
9.	Average Freight Revenue per Ton-Mile, 1975-1985.....	53
10.	Average Passenger Fare, 1975-1985.....	55
11.	Total Operating Revenues, 1975-1985.....	57
12.	Vehicle-Miles, 1975-1985.....	59
13.	Passenger-Miles, 1975-1985.....	61
14.	Revenue Ton-Miles of Freight, 1975-1985.....	63
15.	Basic Intercity Mileage Within the Continental United States, 1975-1985.....	65

Section II: Safety

16.	Injury Severity of Car Occupants in Fatal Accidents, 1981-1985.....	72
17.	Number of Fatalities by Mode, 1975-1986.....	76

SUPPLEMENTARY DATA

Section I: Transportation and the Economy

18.	Personal Consumption Expenditures by Transportation Sector, 1975-1986.....	83
19.	Personal Consumption Expenditures by Type of Product, 1975 and 1986.....	85
20.	National Income by Transportation Sector, 1975-1985.....	87
21.	Wages and Salaries per Full-Time Employee by Transportation Sector, 1975 and 1985.....	89
22.	Wages and Salaries by Transportation Sector, 1975 and 1985.....	91

Section II: Energy in Transportation

Part I. Energy Consumption

23.	U.S. Energy Consumption by the Transportation Sector, 1955-1986.....	103
24.	Price Trend of Regular Grade Gasoline Prices, 1955-1986.....	117
25.	Average Fuel Efficiency of U.S. Passenger Cars, 1955-1985.....	117
26.	Market Shares of Domestic and Import Automobiles by EPA Size Classification, 1978-1986.....	120
27.	Fuel Economies of Domestic and Import Automobiles by EPA Size Classification, 1978-1986.....	120
28.	Market Shares of Domestic and Import Light Trucks by EPA Size Classification, 1978-1986.....	121
29.	Fuel Economies of Domestic and Import Light Trucks by EPA Size Classification, 1978-1986.....	121

INTRODUCTION

Developing and maintaining vital transportation statistics is one of the missions of the U.S. Department of Transportation's Transportation Systems Center (TSC). This publication is produced to support this mission and is intended to disseminate national transportation and energy statistics to the transportation and energy communities.

The compilation of statistical materials is usually a tedious and time consuming process. Consequently, reliable sources often represent a 1-2 years time lag. This report incorporates the latest available information at the time of publication.

While most of these statistics are available from various sources such as government agencies and trade associations, they are presented here in one convenient and comprehensive report. Particular attention has been taken in documenting the sources of all data. These sources are noted either on the same page as the data or in Appendix A -- Source Information.

The reader is urged to utilize the Source Information, and those who may want additional information or an explanation regarding the data in this publication, should check with the source(s).

Four different formats are used -- 1) Tree Displays, 2) Modal Profiles, 3) Performance Indicators, and 4) Transportation Trends -- to spotlight various aspects of the major transportation modes. In addition, three supplemental data sections detail the role of transportation in the economy, the relationship of energy to transportation, and the results of a nationwide personal transportation study. Time series transportation statistics are presented for the period 1975-1985/1986. Energy consumption and supply-and-demand data cover the same period and extend back to 1955.

TREE DISPLAYS

The interrelationships of the various modes are presented via tree displays. These displays present the relationship between and within each transportation mode for the following areas:

- Expenditures and Revenues
- Vehicle-Miles
- Passenger-Miles
- Revenue Ton-Miles of Freight
- Number of Vehicles
- Number of Fatalities
- Energy Consumed

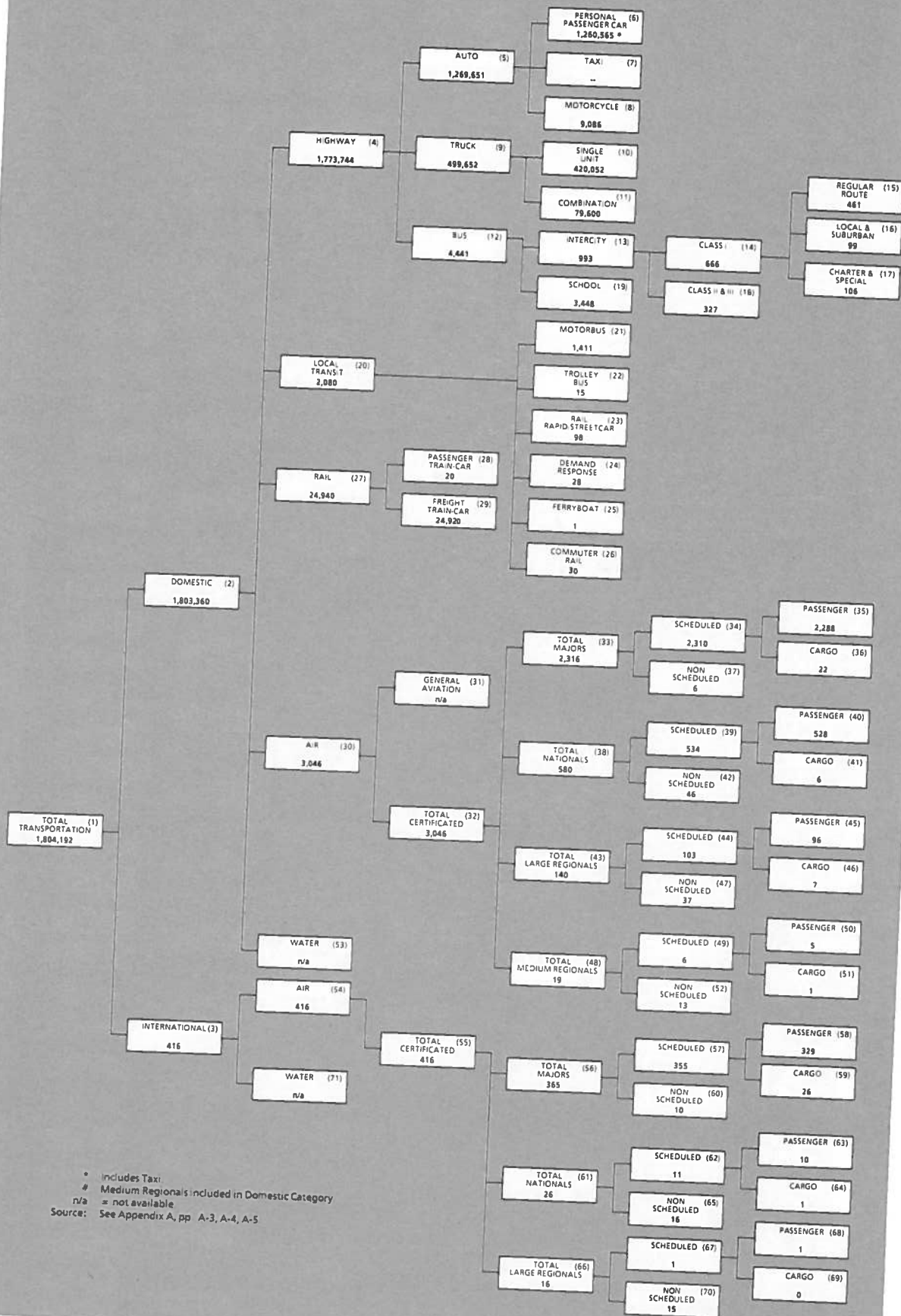
Because of the variety of data sources, the totals may not always equal the sums of the subordinate data. Sources for each statistic may be found by tracing its parenthetical reference number to Appendix A. Where data are not available or not applicable, the block contains the letters "n/a".

MODAL PROFILES

The Modal Profiles present cost, inventory, and performance data comparisons for 1975, 1984, and 1985. In some cases, not all of the types of data in these profiles are available for every mode, nor are they always applicable.

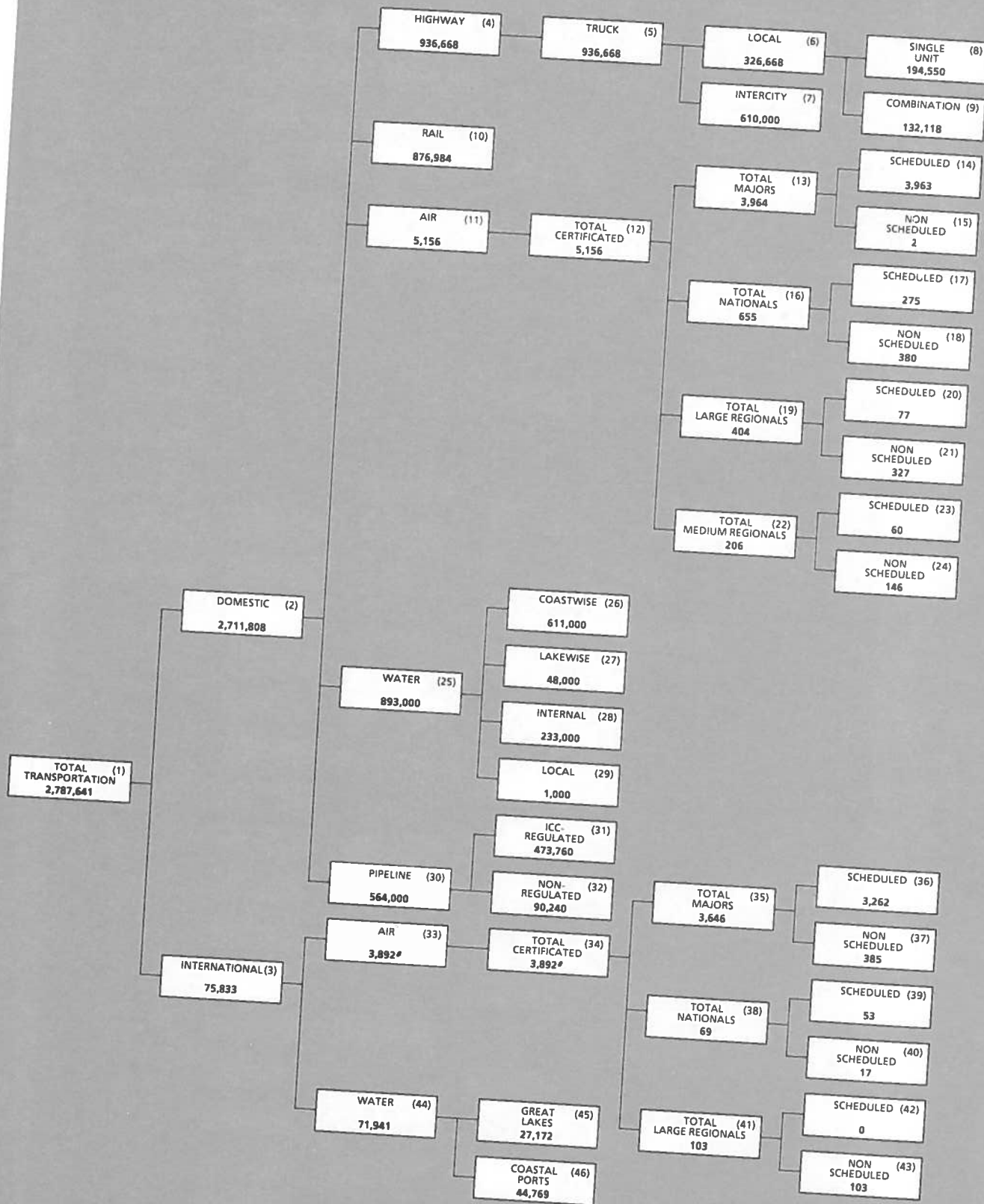
The following list indicates the type of data usually included in each group:

**TREE DISPLAYS
1985**



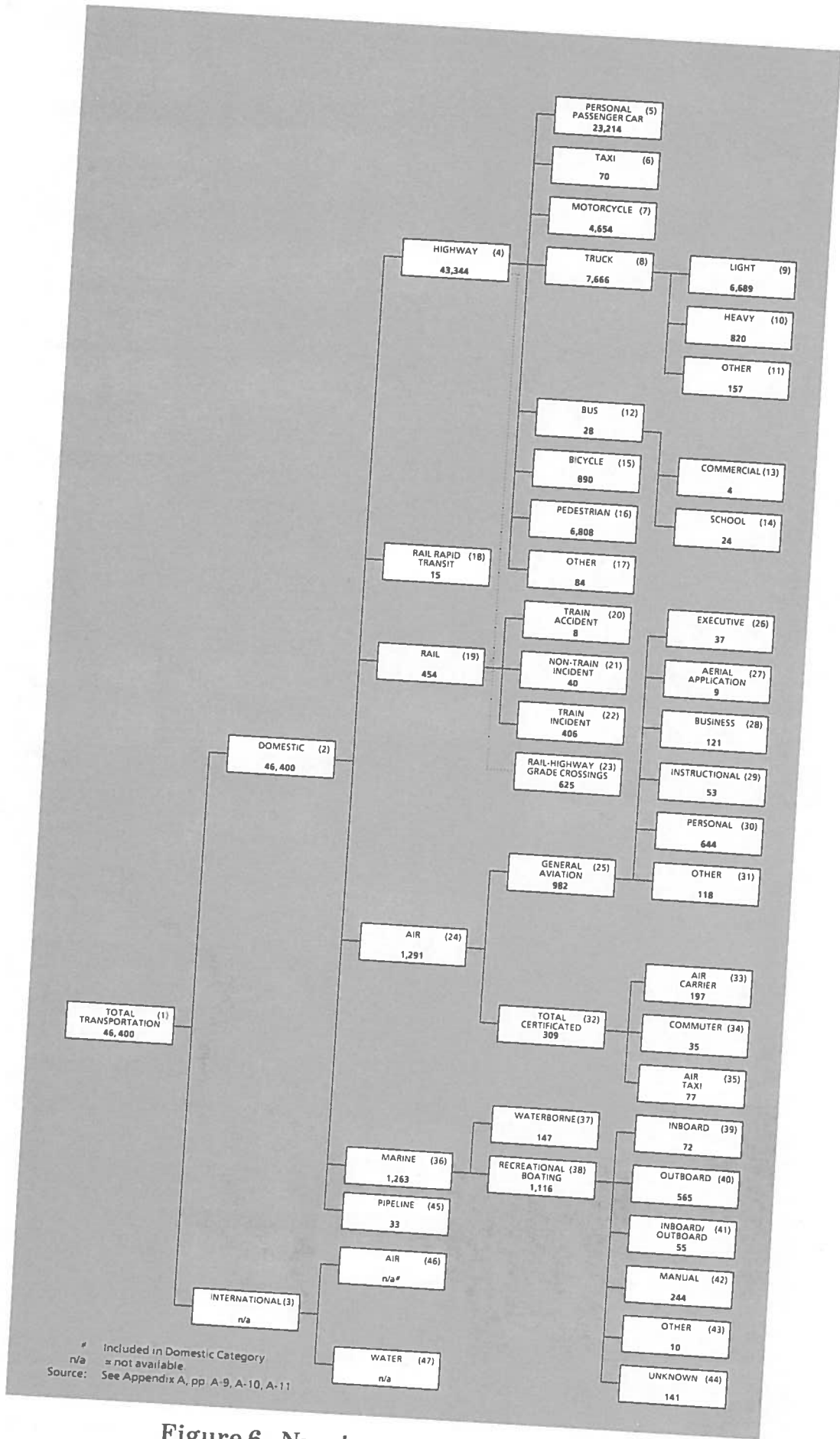
* Includes Taxi
 # Medium Regionals included in Domestic Category
 n/a = not available
 Source: See Appendix A, pp A-3, A-4, A-5

Figure 2. Vehicle-Miles (millions) - 1985



Medium Regionals included in Domestic Category
 Source: See Appendix A, pp. A-7, A-8.

Figure 4. Revenue Ton-Miles of Freight (millions) - 1985



* included in Domestic Category
 n/a = not available
 Source: See Appendix A, pp. A-9, A-10, A-11

Figure 6. Number of Fatalities - 1985

MODAL PROFILES 1975, 1984 and 1985

MODAL PROFILE SOURCE REFERENCES AND PERCENT CHANGE CALCULATION

Specific source references are obtained as follows: the letter directly to the right of the data element applies to all subsequent data elements in that column until the next letter appears. In some cases, data are shown which may not appear directly in the sources listed. These were obtained by addition/subtraction of referenced data or of other data in its column, and are marked with an asterisk.

For example:

Air Carrier Profile

1985

31,161.5^b
29,647.4
57.9
1,456.3
5,596.6^c

reference letter b
also applies to the three
subsequent data elements

reference letter c refers to
a different data source

The specific source number and page or table reference may then be found at the end of each modal profile. All sources are listed in Appendix A--Source Information.

The 1984-1985 percent change column refers to the usual percent difference between 1984 data and 1985 data. The 1975-1985 average annual percent change is equal to $C \times 100$, where C is obtained from the following relationship: $D^{85} = D^{75} (1 + C)^{11}$. (Note D^{75} and D^{85} refer to 1975 and 1985 data, respectively; C is the change, and the relationship is derived from the compound interest formula.)

AIR CARRIER PROFILE (cont'd)

III. PERFORMANCE	1975	1984 ¹	1985 ¹	1975-1985 Average Annual % Change	1984-1985 % Change
Aircraft Revenue-Miles (millions)					
Domestic					
Certificated, all services*					
Scheduled services	1,947.7 ^a	2,875.4 ^j	3,046.4	4.2	6.0
Nonscheduled services	1,909.5	2,786.2	2,950.1	4.0	5.9
Majors, all services*	38.2	89.2	96.3	8.8	8.0
Scheduled services	1,629.0	2,211.1 ^k	2,315.6 ^k	3.3	4.7
Nonscheduled services	1,599.0	2,200.9	2,309.9	3.4	5.0
Nationals, all services*	30.0	10.2	5.7	-14.0	-44.1
Scheduled services	263.2	461.4 ^l	579.9	7.5	25.7
Nonscheduled services	257.8	432.5	534.1	6.9	23.5
Large Regionals, all services*	5.4	28.9	45.8	21.5	58.5
Scheduled services	55.5	161.5 ^m	139.5 ^m	8.7	-13.6
Nonscheduled services	52.7	116.3	103.0	6.3	-11.4
International	2.8	45.2	36.5	26.3	-19.3
Certificated, all services*					
Scheduled services	377.0	388.8 ⁿ	415.3 ⁿ	0.9	6.8
Nonscheduled services	331.0	347.4	369.8	1.0	6.5
Majors, all services*	46.0	41.4	45.5	-0.1	9.9
Scheduled services	341.6	332.8 ^o	364.9 ^o	0.6	9.7
Nonscheduled services	305.2	323.6	354.7	1.4	9.6
Nationals, all services*	36.4	9.2	10.2	-10.9	10.9
Scheduled services	35.4	18.0 ^p	26.2 ^p	-2.7	45.6
Nonscheduled services	25.8	14.4	10.5	-7.9	-27.1
Large Regionals, all services*	9.6	3.6	15.7	4.6	336.1
Scheduled services	n/a	33.9 ^q	16.3 ^q	-	-51.9
Nonscheduled services	n/a	9.3	1.3	-	-86.0
Medium Regionals, all services	n/a	24.6	15.0	-	39.0
Domestic and International*					
Total Certificated	n/a	45.6 ^r	19.2 ^r	-	-57.9
	2,324.7	3,309.8	3,480.9	3.7	5.2
Aircraft Revenue-Hours (thousands)					
Domestic					
Certificated, all services*					
Scheduled services	4,826.4	6,970.9 ^j	7,457.0	4.0	7.0
Nonscheduled services	4,736.0	6,736.6	7,203.9	3.9	6.9
Majors, all services*	90.4	234.3	253.1	9.8	8.0
Scheduled services	3,771.9	5,179.4 ^k	5,446.3 ^k	3.4	5.2
Nonscheduled services	3,708.2	5,156.5	5,433.3	3.5	5.4
Nationals, all services*	63.7	22.9	13.0	-13.5	-43.2
Scheduled services	854.7	1,187.5 ^l	1,485.4	5.2	25.1
Nonscheduled services	841.5	1,112.3	1,357.5	4.4	22.0
Large Regionals, all services*	13.2	75.2	127.9	22.9	70.1
Scheduled services	199.8	460.4 ^m	496.2 ^m	8.6	7.8
Nonscheduled services	186.3	337.6	405.1	7.3	20.0
International	13.5	122.8	91.1	19.0	-25.8
Certificated, all services*					
Scheduled services	781.0	792.7 ⁿ	846.2 ⁿ	0.7	6.8
Nonscheduled services	686.5	701.9	743.5	0.7	5.9
Majors, all services*	94.5	90.8	102.7	0.8	13.1
Scheduled services	707.2	668.8 ^o	731.1 ^o	0.3	9.3
Nonscheduled services	632.8	649.8	710.4	1.1	9.3
Nationals, all services*	74.4	19.0	20.7	-11.0	9.0
Scheduled services	73.8	36.0 ^p	53.0 ^p	-3.0	47.2
Nonscheduled services	53.7	28.7	20.7	-8.3	-27.9
	20.1	7.3	32.3	4.4	342.5

AIR CARRIER PROFILE (cont'd)

	<u>1975</u>	<u>1984¹</u>	<u>1985¹</u>	<u>1975-1985 Average Annual % Change</u>	<u>1984-1985 % Change</u>
Majors, all services	17.8 ^a	22.4 ^o	24.2 ^o	2.8	8.0
Scheduled services	16.3	22.0	23.8	3.5	8.2
Nonscheduled services	1.5	0.4	0.4	-11.3	0.0
Nationals, all services	16.5	1.4 ^p	2.0 ^p	-17.5	42.9
Scheduled services	16.3	1.1	0.8	-24.0	-27.3
Nonscheduled services	0.2	0.3	1.2	17.7	300.0
Large Regionals, all services	n/a	2.5 ^q	1.0 ^q	-	-60.0
Scheduled services	n/a	0.6	0.0	-	-
Nonscheduled services	n/a	1.9	1.0	-	-47.4
Medium Regionals, all services	n/a	3.5 ^r	1.1 ^r	-	-68.6
Domestic and International*	209.1	355.0	391.4	5.9	10.3
Total Certificated*					
Revenue Passenger Load Factor (%)					
Domestic					
Certificated, scheduled services	54.6	57.7 ^j	60.7 ^j	1.0	5.2
Majors, scheduled services	54.8	57.6 ^k	60.9 ^k	1.0	5.7
Nationals, scheduled services	51.7	58.8 ^l	60.3 ^l	1.4	2.6
Large Regionals, scheduled services	n/a	51.6 ^m	51.7 ^m	-	0.2
International					
Certificated, scheduled services	50.4	66.2 ⁿ	64.6 ⁿ	2.3	-2.4
Majors, scheduled services	50.4	65.9 ^o	64.3 ^o	2.2	-2.4
Nationals, scheduled services	n/a	71.5 ^p	70.2 ^p	-	-1.8
Large Regionals, scheduled services	n/a	67.1 ^q	88.9 ^q	-	32.5
Medium Regionals, all services	n/a	62.3 ^r	46.2 ^r	-	-25.8
Domestic and International	53.7	186.2	171.5	11.1	-7.9
Total Certificated*					
U.S. International Passenger Travel					
Total Passenger-Arrivals (thousands)	12,646.0 ^s	23,212.0 ^s	25,608.0 ^s	6.6	10.3
Flag of Carrier:					
United States	6,502.0	11,623.0	12,254.0	5.9	5.4
Foreign	6,144.0	11,588.0	13,354.0	7.3	15.2
Total Passenger-Departures (thousands)	12,053.0	21,608.0	22,487.0	5.8	4.1
Flag of Carrier:					
United States	5,912.0	10,531.0	10,696.0	5.5	1.6
Foreign	6,141.0	11,706.0	11,791.0	6.1	0.7
Total Revenue Ton-Miles (millions) [#]					
Domestic					
Certificated, all services	17,069.5 ^a	30,561.4 ^j	32,939.2 ^j	6.2	7.8
Scheduled services	16,603.0	29,096.2	31,415.6	6.0	8.0
Nonscheduled services	466.5	1,465.3	1,523.6	11.4	4.0
Majors, all services	15,196.7	24,668.9 ^k	26,349.5 ^k	5.1	6.8
Scheduled services	14,794.4	24,545.5	26,290.0	5.4	7.1
Nonscheduled services	402.3	123.4	59.5	-16.0	-51.8
Nationals, all services	1,194.0	4,249.3 ^l	5,510.3 ^l	14.9	29.7
Scheduled services	1,166.1	3,635.4	4,705.0	13.5	29.4
Nonscheduled services	27.9	613.9	805.3	35.8	31.2
Large Regionals, all services	678.8	1,345.1 ^m	898.9 ^m	2.6	-33.2
Scheduled services	642.5	726.1	368.9	-4.9	-49.2
Nonscheduled services	36.3	619.0	530.1	27.6	-14.4
International					
Certificated, all services	6,464.3	10,716.5 ⁿ	11,215.3 ⁿ	5.1	4.7
Scheduled services	5,582.6	9,600.8	9,913.7	5.4	3.3
Nonscheduled services	881.7	1,115.7	1,301.9	3.6	16.7

AIR CARRIER PROFILE (cont'd)

	<u>1975</u>	<u>1984¹</u>	<u>1985¹</u>	<u>1975-1985 Average Annual % Change</u>	<u>1984-1985 % Change</u>
Fatal Air Carrier Accidents					
Operating under 14 CFR 121 (airlines)					
All scheduled services	3.0 ^t	1.0 ^t	4.0 ^t	2.7	300.0
Nonscheduled services	0.0	0.0	3.0	-	-
Operating under 14 CFR 135					
All scheduled services (commuters)	n/a	7.0	6.0	-	14.3
Nonscheduled services (On-demand Air Taxis)	n/a				
Total*	3.0	22.0	35.0	-	59.1
Air Carrier Fatalities					
Operating under 14 CFR 121 (airlines)					
All scheduled services	124.0	4.0	197.0	4.3	4,825.0
Nonscheduled services	0.0	0.0	329.0	-	-
Operating under 14 CFR 135					
All scheduled services (commuters)	n/a	45.0	35.0	-	-22.2
Nonscheduled services (On-demand Air Taxis)	n/a				
Total*	124.0	51.0	77.0	-	51.0
		100.0	638.0	16.1	538.0

n/a = not available.

* Data derived by addition/subtraction and may not appear directly in the data source.

Total Revenue Ton-Miles includes Passenger, Freight, Express and Mail.

† Revenue Ton-Miles of Freight includes Freight, Express and Mail.

¹ Domestic encompasses operations within and between the 50 states of the United States, the District of Columbia, Puerto Rico and the Virgin Islands. It also encompasses Canadian and Mexican transborder operations. All other operations are considered International.

² Includes scheduled and nonscheduled (charter) operators. By Sec. 2 of the Airline Deregulation Act of 1978 "charter air carrier" and "charter air transportation" replaced supplemental air carriers and supplemental air transportation which were formerly Sec. 101(36) and (37) of the Act. The 24 pre-deregulation supplemental carriers all now have scheduled service authority.

³ Scheduled includes total of freight, air express, U.S. mail and foreign mail. Nonscheduled includes total of civilian freight and other revenue; also military freight and other revenue.

The following data references are listed in Appendix A, pp. A-13, A-14.

<u>Source</u>	<u>Reference Number/Location</u>
a	21) personal communication
b	11) p. 3
c	11) p. 25
d	11) p. 45
e	11) p. 4
f	11) p. 28
g	11) p. 1
h	40) personal communication
j	39) p. 2
k	39) p. 5
l	39) p. 51/54
m	39) p. 85/90
n	39) p. 3
o	39) p. 6
p	39) p. 52/55
q	39) p. 86/91
r	39) p. 158/155
s	42) Tables IIa and II d
t	33) pp. 123, 170

GENERAL AVIATION PROFILE (cont'd)

n/a = not available.

In 1975, Classified as "Industrial Special".

* Totals do not necessarily agree with the sums due to persons double-counted in collisions.

Source: The following data references are listed in Appendix A, pp. A-13, A-14.

<u>Source</u>	<u>Reference Number/Location</u>
a	20) p. 5
b	22) p. 5
c	33) Table 8.1
d	33) Table 8.3
e	18) 1987 News Release

HIGHWAY PROFILE (cont'd)

	<u>1975</u>	<u>1984</u>	<u>1985</u>	1975-1985 Average Annual % Change	1984-1985 % Change
Minor arterial	50,205.0 ^e	136,761.0 ^f	136,809.0 ^f	9.5	0.0
Major collector	108,152.0	158,956.0	163,193.0	3.8	2.7
Minor collector	18,894.0	42,922.0	43,333.0	7.8	1.0
Local	84,818.0	86,298.0	86,805.0	0.2	0.6
Total	600,721.0	718,132.0	730,201.0	1.8	1.7
Urban					
Interstate	133,689.0	204,304.0	216,160.0	4.5	5.8
Other freeways and expressways	68,738.0	93,810.0	97,397.0	3.2	3.8
Other principal arterial	204,112.0	271,403.0	279,073.0	2.9	2.8
Minor arterial	180,673.0	195,400.0	201,700.0	1.0	3.2
Collector	57,323.0	87,893.0	89,552.0	4.1	1.9
Local	84,818.0	149,327.0	160,096.0	6.0	7.2
Total	729,353.0	1,002,137.0	1,043,978.0	3.3	4.2
Total Rural and Urban	1,330,074.0	1,720,269.0	1,774,179.0	2.7	3.1

n/a = not available.

* Figures obtained by addition/subtraction and may not appear directly in data source.

** 1984 and 1985 now based on merged Highway Performance Monitoring System (HPMS) data and may vary from previous years.

† Mileage in Federal parks, forests, and reservations that are not a part of the state and local highway system.

Source: The following data references are listed in Appendix A, p. A-14.

<u>Source</u>	<u>Reference Number/Location</u>
a	21) personal communication
b	36) Table HF-10
c	36) Table M-1
d	36) Table HM-10
e	36) Table VM-1
f	37) Table VM-202

AUTOMOBILE PROFILE (cont'd)

	<u>1975</u>	<u>1984</u>	<u>1985</u>	<u>1975-1985 Average Annual % Change</u>	<u>1984-1985 % Change</u>
Average Fuel Consumption per Vehicle (gallons)					
Passenger cars and taxis	716.0 ^e	536.0 ^e	525.0 ^e	-2.8	-2.1
Motorcycles	23.0	32.0	33.0	3.3	3.1
Average Miles Traveled Per Gallon of Fuel Consumed					
Passenger cars and taxis	13.5	17.8	18.2	2.8	2.3
Motorcycles	50.0	50.0	50.0	0.0	0.0
Number of Vehicles in All Accidents					
Motorcycles	n/a	530,000.0 ⁱ	460,000.0 ⁱ	-	-13.2
Passenger cars	n/a	25,200,000.0	25,600,000.0	-	1.6
Taxis	n/a	110,000.0	100,000.0	-	-9.1
Number of Vehicles in Fatal Accidents					
Motorcycles	3,264.0 ⁱ	4,659.0	4,608.0	3.2	-1.1
Passenger cars	37,896.0	34,665.0	34,310.0	-0.9	-1.0
Taxis	n/a	300.0	300.0	-	0.0
Number of Occupant & Non Occupant Fatalities					
Motor vehicles					
Passenger cars	44,522.0 ^j	44,257.0 ^j	43,825.0 ^j	-0.1	-1.0
Taxis	25,928.0	23,621.0	23,214.0	-1.0	-1.7
Motorcycles, total	n/a	70.0 ⁱ	70.0 ⁱ	-	0.0
Motorcycles	3,188.0	4,608.0 ^j	4,564.0 ^j	3.3	-1.0
Mopeds	3,113.0	4,431.0	4,417.0	3.2	-0.3
Other and unknown	n/a	95.0	76.0	-	-20.0
Bicycles ⁵	75.0	82.0	71.0	-0.5	-13.4
Pedestrians ⁵	1,003.0	849.0	890.0	-1.1	4.8
Fatalities in Vehicular Accidents ⁶	7,516.0	7,025.0	6,808.0	-0.9	-3.1
Passenger cars	34,460.0	31,540.0	30,876.0	-1.0	-2.1
Motorcycles	n/a	4,764.0	4,720.0	-	-0.9
Occupant Fatality Rate					
Per 100 million vehicle-miles					
Passenger cars	2.5	1.9	1.8	-2.9	-5.3
Motorcycles ^{5,6}	56.6	52.5	50.2	-1.1	-4.4
Per 10,000 registered vehicles					
Passenger cars	2.4	1.8	1.8	-2.6	0.0
Motorcycles	6.4	8.4	8.4	2.5	0.0
Vehicle Involvement Rate					
Per 100 million vehicle-miles					
Passenger cars	3.7	2.9	2.7	-2.8	-6.9
Motorcycles	58.0	53.0	50.7	-1.2	-4.3
Per 10,000 registered vehicles					
Passenger cars	3.6	2.7	2.6	-2.9	-3.7
Motorcycles	6.4	8.5	8.5	2.6	0.0

n/a = not available.

* Figures obtained by addition/subtraction and may not appear directly in data source.

** In 1975, interstate rural was categorized as main rural and other rural was categorized as local rural.

*** Figure included in Interstate rural.

¹ Includes passenger cars, taxis, and motorcycles. Also, 1984/1985 data reflect changes in FHWA reporting methods and may not be comparable to previous years.

² Urban consists of travel on all roads and streets in urban places of 5,000 or greater population.

³ Derived by multiplying passenger car and taxi vehicle-miles by an average occupancy rate of 2.3.

⁴ Derived by multiplying motorcycle vehicle-miles by an average occupancy rate of 1.1.

⁵ Involvement only with motor vehicle.

⁶ Includes all fatalities in the accident in which the vehicle types were listed.

Source: The following data references are listed in Appendix A, pp. A-13, A-14.

BUS PROFILE

	<u>1975</u>	<u>1984</u>	<u>1985</u>	<u>1975-1985 Average Annual % Change</u>	<u>1984-1985 % Change</u>
I. FINANCIAL					
Expenditures (\$ millions)					
School bus	2,174.0 ⁱ	5,800.0 ⁱ	6,100.0 ⁱ	9.8	5.2
Operating Revenues (\$ millions)					
Intercity bus, total	1,171.6 ^c	1,913.6 ^c	1,879.0 ^c	4.4	-1.8
Intercity bus, Class I*	954.7 ⁱ	1,299.2 ⁱ	1,251.1 ⁱ	2.5	-3.7
Operating Expenses (\$ millions)					
Intercity bus, total	1,103.2 ^c	1,895.5 ^c	1,814.3 ^c	4.6	-4.3
Intercity bus, Class I*	893.2 ⁱ	1,290.6 ⁱ	1,187.4 ⁱ	2.6	-8.0
Taxes Assignable to Operations (\$ millions) ¹					
Intercity bus, total	96.5 ^c	n/a	n/a	-	-
Intercity bus, Class I*	77.2 ⁱ	91.8 ⁱ	92.5 ⁱ	1.7	0.8
II. INVENTORY					
Number of Operating Companies					
Intercity bus, total	950.0 ^e	3,254.0 ^e	3,588.0 ^e	12.8	10.3
Intercity bus, Class I*	84.0	51.0	51.0	-4.4	0.0
Number of Vehicles					
Intercity bus, total	20,500.0	20,100.0	20,200.0	-0.1	0.5
School bus	368,300.0	471,461.0	480,389.0	2.4	1.9
Intercity bus, Class I*	9,800.0	7,245.0	7,146.0	-2.8	-1.4
Number of Employees of Operating Companies					
Intercity bus, total	46,600.0	44,100.0	43,100.0	-0.7	-2.3
Intercity bus, Class I*	35,140.0	25,500.0	24,000.0	-3.4	-5.9
Miles of Highway Served					
Intercity bus, total	272,000.0	266,000.0	263,000.0	-0.3	-1.1
Intercity bus, Class I*	207,000.0	184,000.0	182,000.0	-1.2	-1.1
III. PERFORMANCE					
Vehicle Miles (millions)**					
Commercial bus					
Rural					
Interstate rural	928.0	293.0	304.0	-9.7	3.8
Other arterial rural	n/a	426.0	435.0	-	2.1
Other rural	80.0	418.0	453.0	17.1	8.4
All rural	1,008.0	1,137.0	1,192.0	1.5	4.8
Urban ²					
Interstate urban	n/a	352.0	373.0	-	6.0
Other urban	n/a	1,840.0	1,918.0	-	4.2
All urban	1,640.0	2,192.0	2,291.0	3.1	4.5
Total Rural and Urban	2,648.0	3,329.0	3,483.0	2.5	4.6
School bus and nonrevenue bus					
Rural					
Interstate rural	930.0	202.0	205.0	-12.8	1.5
Other arterial rural	n/a	678.0	687.0	-	1.3
Other rural	1,020.0	1,128.0	1,144.0	1.1	1.4
All rural	1,950.0	2,008.0	2,036.0	0.4	1.4
Urban ²					
Interstate urban	n/a	255.0	258.0	-	1.2
Other urban	n/a	1,137.0	1,153.0	-	1.4
All urban	550.0	1,392.0	1,412.0	9.0	1.4
Total Rural and Urban	2,500.0	3,400.0	3,448.0	3.0	1.4

BUS PROFILE (cont'd)

n/a = not available.

* Effective January 1, 1977, the average annual gross revenue for Class I carriers was increased to \$4 million.

** Beginning in 1980, vehicle data based on Highway Performance Monitoring System, thus 1975 data is not comparable.

¹ Excludes income taxes.

² Urban consists of travel on all roads and streets in urban places of 5,000 or greater population.

³ Calculated by dividing Revenue Passenger-Miles by Number of Revenue Passengers.

⁴ Includes all fatalities in the accident in which the vehicle types listed were involved.

Source: The following data references are listed in Appendix A, pp. A-13, A-14.

<u>Source</u>	<u>Reference Number/Location</u>
c	1) personal communication
e	21) personal communication
h	38) personal communication
i	14) personal communication

TRUCK PROFILE (cont'd)

	<u>1975</u>	<u>1984</u>	<u>1985</u>	<u>1975-1985 Average Annual % Change</u>	<u>1984-1985 % Change</u>
Average Miles Traveled per Vehicle					
Single-unit trucks	9,829.0 ^h	11,150.0	11,016.0 ^h	1.0	-1.2
Combination trucks	41,321.0	57,730.0	56,725.0	2.9	-1.7
All trucks	10,940.0	12,849.0	12,747.0	1.4	-0.8
Ton-Miles (millions)					
Intercity	454,000.0 ^b	605,000.0 ^b	610,000.0 ^b	2.7	0.8
Fuel Consumed (thousand gallons)					
Single-unit trucks	22,717.0 ^h	34,269.0 ^h	335,756.0 ^h	4.2	4.3
Combination trucks	8,654.0	14,781.0	15,280.0	5.3	3.4
All trucks	31,371.0	49,050.0	51,036.0	4.5	4.1
Average Fuel Consumption per Vehicle (gallons)					
Single-unit trucks	877.0	862.0	857.0	-0.2	-0.6
Combination trucks	7,653.0	11,030.0	10,889.0	3.3	-1.3
All trucks	1,217.0	1,308.0	1,302.0	0.6	-0.5
Average Miles Traveled per Gallon of Fuel Consumed					
Single-unit trucks	11.2	12.9	12.9	1.3	0.0
Combination trucks	5.4	5.2	5.2	-0.3	0.0
All trucks	9.0	9.8	9.8	0.8	0.0
Taxes Assignable to Operations (\$ millions)					
State highway-user taxes	4,819.0 ⁱ	8,716.0 ⁱ	9,772.0 ⁱ	6.6	11.5
Federal highway-user taxes	2,351.0	4,844.0	6,317.0	9.4	30.4
Total highway-user taxes	7,170.0	13,560.0	16,039.0	7.6	18.3
Average Length of Haul (statute miles)					
Class I Intercity motor carriers					
Common	322.0	324.0	326.0	0.1	0.6
Total Fatalities, Motor Carriers of Property					
Private	2,232.0 ^l	2,721.0 ^l	2,646.0 ^l	1.6	-2.8
Authorized	620.0	594.0	521.0	-1.6	-12.3
Exempt	1,496.0	2,009.0	2,015.0	2.7	0.3
Others	101.0	79.0	85.0	-1.6	7.6
Others	15.0	39.0	25.0	4.8	-35.9
Total Accidents					
Private	24,274.0	36,854.0	39,273.0	4.5	6.6
Authorized	4,898.0	6,152.0	5,829.0	1.6	-5.3
Exempt	18,791.0	29,549.0	32,469.0	5.1	9.9
Others	430.0	932.0	765.0	5.4	-17.9
Others	155.0	221.0	210.0	2.8	-5.0
Total Injuries					
Private	26,374.0	29,149.0	28,988.0	0.9	-0.6
Authorized	5,320.0	4,976.0	4,424.0	-1.7	-11.1
Exempt	20,416.0	23,273.0	23,812.0	1.4	2.3
Others	476.0	728.0	600.0	2.1	-17.6
Others	162.0	172.0	152.0	-0.6	-11.6
Property Damage (\$ millions)					
Private	158.0	404.0	393.0	8.6	-2.7
Authorized	36.0	79.0	60.0	4.8	-24.1
Exempt	117.0	311.0	322.0	9.6	3.5
Others	4.0	11.0	9.0	7.7	-18.2
Others	1.0	3.0	2.0	6.5	-33.3
Occupant Fatalities					
All trucks, total	5,817.0 ^m	7,570.0 ^m	7,666.0 ^m	2.5	1.3
Light trucks	4,856.0	6,496.0	6,689.0	3.0	3.0
Medium trucks	228.0	153.0	157.0	-3.3	2.6
Heavy trucks	733.0	921.0	820.0	1.0	-11.0
Fatalities in Vehicular Accidents²					
All trucks, total	13,172.0	17,283.0	17,755.0	2.8	2.7
Light trucks	9,393.0	12,710.0	13,141.0	3.1	3.4
Medium trucks	946.0	778.0	762.0	-2.0	-2.1
Heavy trucks	3,590.0	4,930.0	5,044.0	3.1	2.3

LOCAL TRANSIT PROFILE

	<u>1979¹</u>	<u>1984</u>	<u>1985</u>	<u>1979-1985 Average Annual % Change</u>	<u>1984-1985 % Change</u>
I. FINANCIAL					
Operating Revenues (\$ millions)					
Passenger Revenue					
Single mode motor bus properties	533.4 ^a	534.9 ^c	601.3 ^c	1.1	12.4
All properties	2,152.6 ^d	3,724.3 ^f	3,882.5 ^f	5.5	4.3
Federal Cash Grants and Reimbursements					
Single mode motor bus properties	316.6 ^a	188.1 ^c	194.5 ^c	-4.3	3.4
All properties	1,177.3 ^d	903.5 ^f	859.2 ^f	-2.8	-4.9
Total Operating Revenues					
Single mode motor bus properties	1,559.6 ^a	1,635.7 ^c	1,784.3 ^c	1.2	9.1
All properties	5,771.0 ^d	10,038.5 ^f	10,608.0 ^f	5.7	5.7
Operating Expenses (\$ millions)					
All Systems					
Motor Bus					
Vehicle operations	2,236.3 ^g	3,210.6 ⁱ	3,393.7 ⁱ	3.9	5.7
Vehicle maintenance	771.4	1,243.6	1,323.8	5.0	6.5
Other	700.9	1,062.7	1,143.3	4.6	7.6
Total expenses**	3,708.6	5,652.5	6,017.2	4.5	6.5
Rail Rapid					
Vehicle operations	466.8	773.1	797.3	5.0	3.1
Vehicle maintenance	247.0	479.9	518.2	7.0	8.0
Other	792.1	1,341.2	1,529.1	6.2	14.0
Total expenses**	1,505.9	2,594.2	2,847.5	6.0	9.8
Streetcar					
Vehicle operations	36.2	53.7	56.5	4.1	5.2
Vehicle maintenance	24.5	33.6	37.5	4.0	11.6
Other	36.7	40.1	46.1	2.1	15.0
Total expenses**	97.4	127.3	140.1	3.4	10.1
Trolley Bus					
Vehicle operations	25.9	48.3	52.9	6.7	9.5
Vehicle maintenance	6.0	15.6	15.8	9.2	1.3
Other	9.9	19.5	20.7	6.9	6.2
Total expenses**	41.9	83.2	89.5	7.1	7.6
Demand Response					
Vehicle operations	15.0	47.5	63.8	14.1	34.3
Vehicle maintenance	3.7	11.0	12.4	11.6	12.7
Other	22.1	67.2	92.6	13.9	37.8
Total expenses**	40.7	126.7	154.4	12.9	21.9
Ferryboat					
Vehicle operations	4.4	74.7	82.4	30.5	10.3
Vehicle maintenance	1.9	17.6	19.7	23.7	11.9
Other	2.3	25.4	16.6	19.7	-34.7
Total expenses**	8.5	121.1	119.6	27.2	-1.2
Commuter Rail					
Vehicle operations	n/a	229.9	308.8	-	34.3
Vehicle maintenance	n/a	99.1	147.1	-	48.4
Other	n/a	176.7	154.4	-	-12.6
Total expenses**	n/a	566.4	731.7	-	29.2
Other					
Vehicle operations	0.4	1.5	2.9	19.7	93.3
Vehicle maintenance	0.1	0.8	1.0	23.3	25.0
Other	58.3	3.1	3.9	-21.8	25.8
Total expenses**	58.8	5.6	7.9	-16.7	41.1
Total All Modes					
Vehicle operations	2,785.5	4,448.8	4,782.4	5.0	7.5
Vehicle maintenance	1,054.1	1,906.6	2,080.2	6.4	9.1
Other	1,622.1	2,663.7	2,916.3	5.5	9.5
Total expenses**	5,461.7	9,346.3	10,197.0	5.8	9.1

LOCAL TRANSIT PROFILE (cont'd)

n/a = not available.

* Figures obtained by addition/subtraction and may not appear directly in data source.

** Sum of components may not equal total due to rounding.

San Francisco MUNI did not report any passenger-mile data for 1984.

¹ Data covers fiscal year between 7/01/79 and 6/30/80. Beginning in 1984, data is reported on a calendar year basis.

Source: The following data references are listed in Appendix A, p. A-14.

<u>Source</u>	<u>References Number/Location</u>	<u>Source</u>	<u>Reference Number/Location</u>
a	43) Table 001.2.1	j	43) Table 001.17.1
c	44) Table 2.01.1	l	44) Table 2.14
d	43) Table 002.2.1	m	43) Table 001.14.1
f	44) Table 2.01.2	o	44) Table 2.12
g	43) Table 001.07.1	p	44) Table 3.14
i	44) Table 2.06	q	43) Tables 001.15.1 and 001.16.1
		s	44) Table 2.13

WATER TRANSPORT PROFILE (cont'd)

	<u>1975</u>	<u>1984</u>	<u>1985</u>	<u>1975-1985 Average Annual % Change</u>	<u>1984-1985 % Change</u>
III. PERFORMANCE					
Ton-Miles (millions)					
Domestic waterfreight					
Coastwise	315,846.0 ^h	593,923.0 ^h	610,976.0 ^h	6.2	2.9
Internal	180,399.0	242,855.0	232,707.5	2.3	-4.2
Lakewise	68,517.0	49,784.0	48,183.9	-3.2	-3.4
Local	1,222.0	1,157.0	1,102.0	-0.9	-4.8
Total	565,984.0	887,720.0	892,969.9	4.2	0.7
Tons of Freight Hauled (millions)					
Domestic water					
Coastwise	232.0	308.0	310.0	2.7	0.7
Internal	504.0	543.0	535.0	0.5	-1.5
Lakewise	129.0	98.0	92.0	-3.0	-6.1
Local	78.0	81.0	74.0	-0.5	-8.6
Total	943.0	1,029.0	1,011.0	0.6	-1.8
Exports					
Great Lakes ports*	35.0	41.0	35.0	0.0	-14.7
Coastal ports	237.0	335.0	327.0	3.0	-2.4
Total	272.0	376.0	362.0	2.6	-3.7
Imports					
Great Lakes ports*	22.0	18.0	17.0	-2.3	-5.6
Coastal ports	455.0	409.0	396.0	-1.3	-3.2
Total	477.0	427.0	413.0	-1.3	-3.3
Tons of Freight, Intraterritorial (millions)					
	3.0	3.0	3.0	0.0	0.0
Average Haul, Domestic System (miles-per-ton)					
Coastwise	1,362.0	1,931.0	1,972.0	3.4	2.1
Internal	358.0	448.0	524.0	3.5	17.0
Lakewise	530.0	508.0	435.0	-1.8	-14.4
Local	16.0	14.0	12.0	-2.6	-14.3
Total	600.0	863.0	884.0	3.6	2.4
Cargo Capacity (net tons)					
Total non-self-propelled vessels					
Dry cargo barges and scows	33,727,557.0 ⁱ	49,146,905.0 ⁱ	49,475,727.0 ⁱ	3.5	0.7
Tankers	25,525,996.0	38,720,522.0	38,633,297.0	3.8	-0.2
Total self-propelled vessels	8,201,561.0	10,426,383.0	10,842,430.0	2.6	4.0
Dry cargo/passenger	16,762,039.0	24,088,428.0	21,196,263.0	2.2	-12.0
Tankers	7,936,187.0	7,968,013.0	6,601,757.0	-1.7	-17.2
Sailing Vessels	8,825,852.0	16,116,015.0	14,591,672.0	4.7	-9.5
Total Number of Marine Accidents	n/a	4,400.0	2,834.0	-	-35.6
Waterborne Transport ³					
Total Number of Fatalities in Waterborne Transport ⁴	3,310.0 ^l	3,275.0 ^l	3,387.0 ^l	0.2	3.4
Freight	194.0	154.0	147.0	-2.5	-4.6
Tankship	29.0	42.0	6.0	-13.3	-85.7
Passenger Vessel	1.0	0.0	0.0	0.0	0.0
Tug/Towboat	0.0	9.0	4.0	0.0	-55.6
Offshore Supply	17.0	8.0	6.0	-9.0	-25.0
Fishing Vessel	6.0	4.0	1.0	-15.0	-75.0
State Numbered	70.0	43.0	63.0	-1.0	46.5
MODU ⁵	23.0	17.0	16.0	-3.3	-5.9
Platform	2.0	4.0	21.0	23.8	425.0
Freight Barge	3.0	3.0	2.0	-3.6	-33.3
Tank Barge	0.0	0.0	4.0	0.0	-
Miscellaneous	0.0	2.0	5.0	0.0	150.0
	43.0	22.0	19.0	-7.2	-13.6

RAIL PROFILE

A. CLASS I RAILROADS

	<u>1975</u>	<u>1984</u>	<u>1985</u>	<u>1975-1985</u> <u>Average</u> <u>Annual</u> <u>% Change</u>	<u>1984-1985</u> <u>% Change</u>
I. FINANCIAL¹					
Operating Revenues, Class I Line-Haul Railroads (\$ millions)	297.0 ^a	101.0 ^a	103.0 ^a	-9.2	2.0
Passenger	15,389.8	28,471.8	26,687.7	5.1	-6.3
Freight	715.0	881.0	103.0	-16.2	88.3
Other	16,401.9	29,453.4	27,586.4	4.8	-6.3
Total Operating Revenues					
Operating Expenses, Class I Line-Haul Railroads ² (\$ millions)	15,935.5	25,800.5	25,225.3	4.3	1.7
II. INVENTORY					
Number of Vehicles, Class I Railroads					
Freight-carrying cars ³	1,723,605.0	1,486,282.0	1,421,686.0	-1.7	-4.4
Passenger train cars ⁴	6,741.0	2,580.0	2,502.0	-8.6	-3.0
Locomotives	28,210.0	24,506.0	22,932.0	-1.9	-6.4
Number of Companies, Class I Railroads	72.0 ^b	28.0 ^b	22.0 ^b	-10.2	-21.4
Number of Employees, Class I Railroads	487,789.0 ^a	323,030.0 ^a	301,879.0 ^a	-4.3	-6.6
Line Mileage, Class I Line-Haul Railroads	191,520.0	151,998.0	145,764.0	-2.5	-4.1
III. PERFORMANCE					
Car Mileage, Class I Railroads (millions)					
Freight	28,068.0 ^c	26,409.0	24,920.0	-0.9	-5.6
Passenger	68.4	19.6 ^c	19.8 ^c	-10.7	1.0
Total	28,136.4	26,428.6	24,939.8	-1.0	-5.6
Train Mileage, Class I Railroads (millions)					
Freight	402.6 ^a	369.4 ^a	347.3 ^a	-1.3	-6.0
Passenger	34.9 ^d	n/a	n/a	-	-
Total*	437.4	n/a	n/a	-	-
Locomotive Mileage, Class I Railroads (millions)					
Freight	1,231.5	1,326.5 ^c	1,228.1 ^c	0.0	-7.4
Passenger	19.7	3.9	3.9	-13.7	0.0
Total*	1,251.2	1,330.4	1,232.0	-0.1	-7.4
Revenue Passengers Carried, Class I Railroads (millions)					
Commutation	195.5 ^e	270.0 ^e	281.0 ^e	3.4	4.1
Non-Commutation ⁴	73.9	19.9	20.8	-10.9	4.5
Total ⁴	269.4	289.9	301.8	1.0	4.1
Revenue Passenger Miles, Class I Railroads (millions)					
Commutation	4,513.0	6,354.0	6,615.0	3.5	4.1
Non-Commutation ⁴	5,422.0	4,552.0	4,825.0	-1.1	6.0
Total ⁴	9,935.0	10,906.0	11,440.0	1.3	4.9

**RAIL PROFILE
B. AMTRAK**

	<u>1975</u>	<u>1984</u>	<u>1985</u>	<u>1975-1985 Average Annual % Change</u>	<u>1984-1985 % Change</u>
I. FINANCIAL					
Operating Revenues (\$ thousands)					
Passenger	212,430.0 ^a	482,749.0 ^a	518,770.0 ^a	8.5	7.5
Other*	40,267.0	175,912.0	205,839.0	16.0	17.0
Total Operating Revenues	252,697.0	658,661.0	724,609.0	10.1	10.0
Operating Expenses	531,481.0	1,399,867.0	1,435,034.0	9.5	2.5
II. INVENTORY					
Number of Vehicles					
Passenger Train Cars	1,913.0	1,844.0	1,818.0	-0.5	-1.4
Locomotives	355.0	387.0	382.0	0.7	-1.3
Number of Companies	1.0 ^b	1.0 ^b	1.0 ^b	0.0	0.0
Number of Employees	9,274.0	21,634.0 ^c	20,537.0 ^c	7.5	-5.1
Line Mileage	24,836.0 ^a	23,356.0 ^a	23,394.0 ^a	-0.5	0.2
III. PERFORMANCE					
Car Mileage (millions)					
Passenger	252.9	234.6	250.6	-0.1	6.8
Train Mileage (millions)					
Passenger	30.2	29.1	30.0	-0.1	3.1
Locomotive Mileage (millions)					
Passenger	44.3	40.0 ^c	42.7 ^c	-0.3	6.8
Revenue Passengers Carried (millions)					
Non-commutation	16.8 ^a	19.5 ^a	20.1 ^a	1.6	3.1
Revenue Passenger Miles (millions)					
Non-commutation	3,571.2	4,426.7	4,784.7	2.7	8.1
Average Revenue per Passenger (dollars)					
	13.0	24.8	25.8	6.4	4.0
Average Revenue per Passenger-Mile (cents)					
	5.9	10.9	10.5	5.4	-3.7
Average Passenger Trip Length (miles)					
Non-commutation	217.9	227.5	237.7	0.8	4.5

n/a = not available.

* Figures obtained by addition/subtraction and may not appear directly in data source.

Source: The following data references are listed in Appendix A, p. A-13.

<u>Source</u>	<u>Reference Number/Location</u>
a	7) p. 61
b	9) pp. 16, 17
c	5) personal communication

NATURAL GAS PIPELINE PROFILE

	<u>1975</u>	<u>1984</u>	<u>1985</u>	<u>1975-1985 Average Annual % Change</u>	<u>1984-1985 % Change</u>
I. FINANCIAL					
Transmission Pipeline Companies					
Operating Revenues (\$ millions)					
Total Operating Revenues	11,898.0 ^a	53,319.0 ^b	45,738.0 ^b	13.0	-14.2
Operating Expenses (\$ millions)					
Operating expenses	8,463.0	46,269.0	39,635.0	15.1	-14.3
Maintenance expenses	187.0	499.0	523.0	9.8	4.8
Total Operating and Maintenance Expenses	8,650.0	46,768.0	40,158.0	15.0	-14.1
Taxes					
Federal taxes*	741.0	1,762.0	1,454.0	6.3	-17.5
State and local taxes*	273.0	591.0	526.0	6.1	-11.0
Total taxes	1,014.0	2,353.0	1,980.0	6.3	-15.9
Total Operating Expenses	10,560.0	50,586.0	43,587.0	13.8	-13.8
Distribution Pipeline Companies					
Operating Revenues (\$ millions)					
Total Operating Revenues	5,938.0 ^c	17,366.0 ^d	21,510.0 ^d	12.4	23.9
Operating Expenses (\$ millions)					
Operating expenses	4,333.0	14,370.0	17,387.0	13.5	21.0
Maintenance expenses	165.0	294.0	420.0	8.9	42.9
Total Operating and Maintenance Expenses	4,498.0	14,664.0	17,807.0	13.3	21.4
Taxes					
Federal taxes*	234.0	517.0	695.0	10.4	34.4
State and local taxes*	431.0	884.0	1,187.0	9.7	34.3
Total taxes	665.0	1,401.0	1,882.0	9.9	34.3
Total Operating Expenses	5,409.0	16,462.0	20,260.0	12.8	23.1
II. INVENTORY					
Transmission Pipeline Companies					
Number of Employees	37,200.0 ^f	47,200.0 ^f	46,300.0 ^f	2.0	-1.9
Miles of Transmission Pipeline	262,600.0 ^g	271,900.0 ^g	271,200.0 ^g	0.3	-0.3
Distribution Pipeline Companies					
Number of Employees	51,300.0 ^f	46,200.0 ^f	61,800.0 ^f	1.7	33.8
Miles of Distribution Pipeline	648,200.0 ^g	736,800.0 ^g	753,400.0 ^g	1.4	2.3
Number of Interstate Natural Gas Pipeline Companies	122.0 ^h	137.0 ^h	139.0 ^h	1.2	1.5
III. PERFORMANCE					
Total Marketed Production ² (million cubic feet)	20,108,661.0 ⁱ	18,229,638.0 ⁱ	17,197,999.0 ⁱ	-1.4	-5.7
Total Delivered to Consumers ³ (million cubic feet)	17,558,353.0 ^j	16,344,893.0 ^j	15,811,130.0 ^j	-1.0	-3.3
Total Consumed (million cubic feet)	19,537,593.0	17,950,528.0	17,280,943.0	-1.1	-3.7
Total Gas Used as a Pipeline					
Fuel (million cubic feet)	582,963.0	528,754.0	503,766.0	-1.3	-4.7
Total Fatalities	21.0 ^k	35.0 ^k	33.0 ^k	4.2	-5.7
Gas Pipeline	14.0	35.0	28.0	6.5	-20.0
Liquid Pipeline	7.0	0.0	5.0	-3.0	-

**SELECTED PASSENGER
AND CARGO PERFORMANCE
INDICATORS BY MODE
1975, 1984 and 1985**

**SELECTED PASSENGER AND CARGO PERFORMANCE
INDICATORS BY MODE, 1975, 1984 and 1985 (cont'd)**

	<u>1975</u>	<u>1984</u>	<u>1985</u>
AUTOMOBILE (cont'd)			
Vehicle-miles of travel per capita, passenger cars, taxis, motorcycles			
Rural			
Interstate rural	378.8	401.1	410.4
Other arterial rural	845.8	792.1	788.2
Other rural	837.0	788.0	792.1
All rural	2,061.7	1,980.9	1,989.9
Urban			
Interstate urban	444.1	646.2	678.0
Other urban	2,331.0	2,601.4	2,661.7
All urban	2,775.1	3,247.5	3,339.8
Total rural and urban	4,836.8	5,228.4	5,330.0
Passenger-miles per capita			
Passenger cars and taxis, total travel	11,064.4	11,939.7	12,170.6
Motorcycles, total travel	288.1	40.9	42.0
Vehicle-miles of travel per vehicle, passenger cars, taxis			
All rural	4,152.7	3,647.2	3,594.9
All urban	5,589.8	5,979.3	6,033.5
Total rural & urban	9,742.5	9,626.4	9,628.5
Passenger-miles per vehicle			
Passenger cars and taxis	22,286.3	21,983.2	21,987.0
Motorcycles	1,247.3	1,763.1	1,835.8
BUS			
U.S. population per intercity bus	10,484.4	11,739.4	11,792.1
Vehicle-miles per capita			
Commercial bus			
Rural			
Interstate rural	4.3	1.2	1.3
Other arterial rural	n/a	1.8	1.8
Other rural	0.4	1.8	1.9
All rural	4.7	4.8	5.0
Urban			
Interstate urban	n/a	1.5	1.6
Other urban	n/a	7.8	8.1
All urban	7.6	9.3	9.6
Total rural and urban	12.3	14.1	14.6

**SELECTED PASSENGER AND CARGO PERFORMANCE
INDICATORS BY MODE, 1975, 1984 and 1985 (cont'd)**

	<u>1979</u>	<u>1984</u>	<u>1985</u>
LOCAL TRANSIT			
Total vehicle operating expenses (dollars) per vehicle-mile			
Motorbus	2.8	4.1	4.3
Rail rapid/Streetcar	21.7	28.8	30.6
Trolley bus	3.5	5.6	5.9
Demand response	n/a	4.9	5.5
Ferryboat	58.7	106.9	105.0
Commuter Rail	n/a	21.2	24.6
Total annual passenger-miles per vehicle (thousands)			
Motorbus	364.2	348.3	360.5
Rail rapid/Streetcar	338.3	1,057.4	1,064.4
Trolley bus	303.3	141.4	384.3
Demand response	n/a	17.5	22.6
Ferryboat	1.6	3.1	4.8
Commuter Rail	n/a	1.4	1.5
Total revenue vehicle-miles per vehicle			
Motorbus	27.1	25.3	26.4
Rail rapid/Streetcar	7.1	9.6	9.7
Trolley bus	16.8	22.2	22.3
Demand response	n/a	10.4	11.6
Ferryboat	14.5	15.7	24.8
Commuter Rail	n/a	6.6	7.4
	<u>1975</u>	<u>1984</u>	<u>1985</u>
WATER TRANSIT			
Ton-miles per capita, domestic water			
Coastwise	1,469.5	2,517.0	2,564.8
Internal	839.3	1,029.2	976.9
Lakewise	318.8	211.0	201.9
Local	5.7	4.9	4.6
Total	2,633.3	3,762.1	3,752.7
Tons of freight hauled per capita, domestic water			
Coastwise	1.1	1.3	1.3
Internal	2.3	2.3	2.2
Lakewise	0.6	0.4	0.4
Local	0.4	0.3	0.3
Total	4.4	4.4	4.2
CLASS I RAILROADS			
Revenue passenger-miles per capita			
Commutation	21.0	26.9	27.8
Non-commutation	25.2	19.3	20.3
Total	46.2	46.2	48.0

TRANSPORTATION TRENDS

Section I: Performance

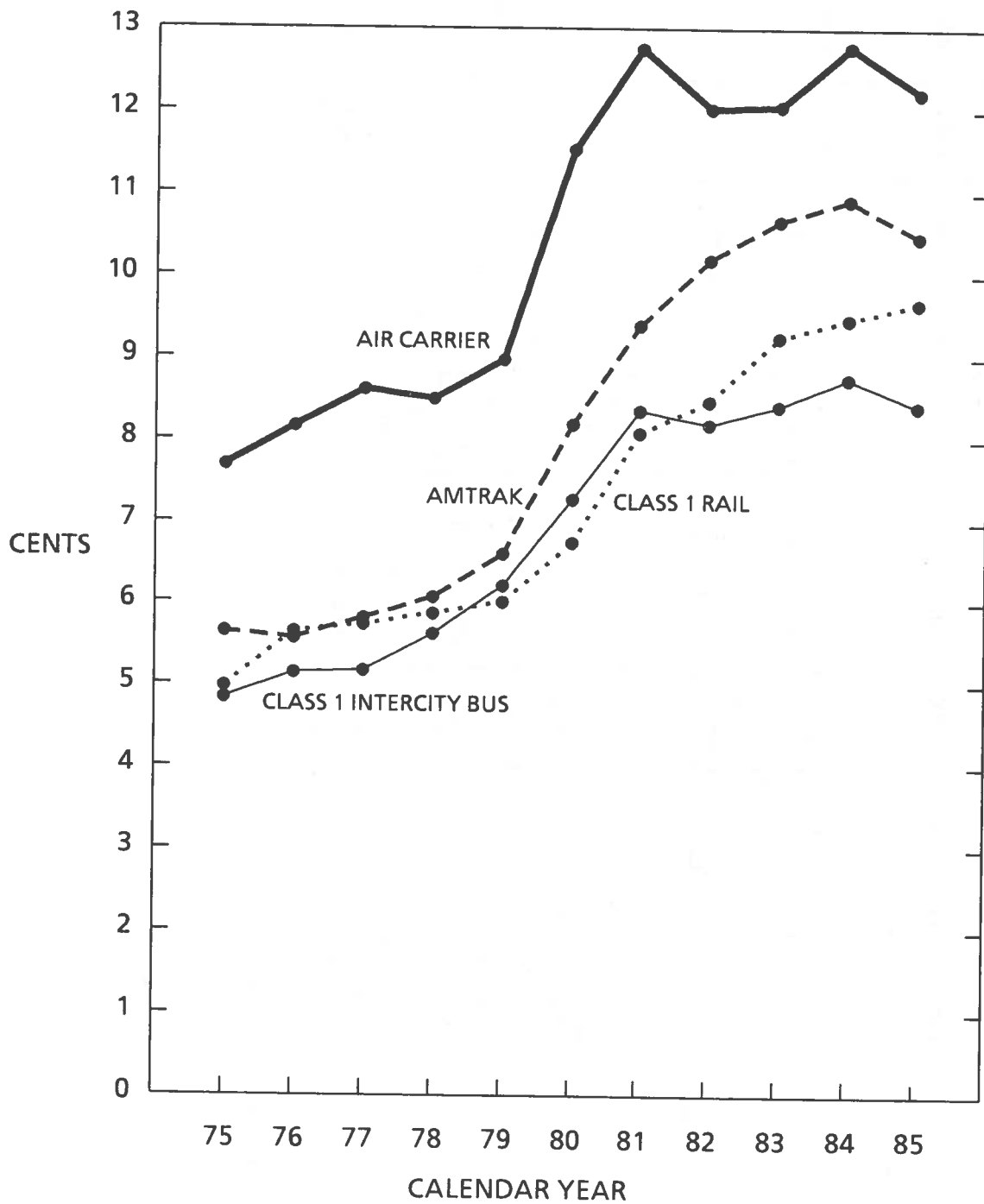


Figure 8. Average Passenger Revenue per Passenger-Mile, 1975-1985

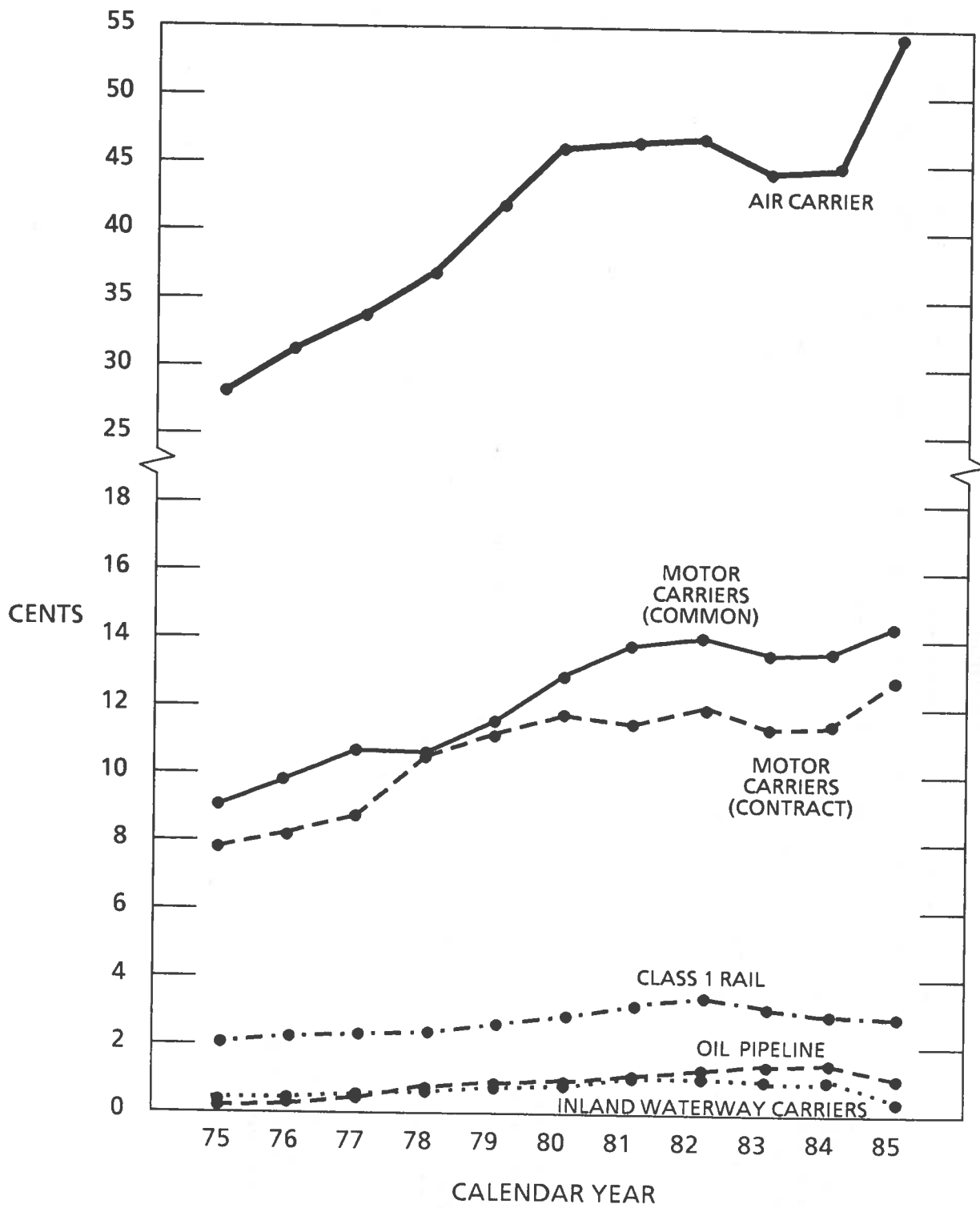


Figure 9. Average Freight Revenue per Ton-Mile, 1975-1985

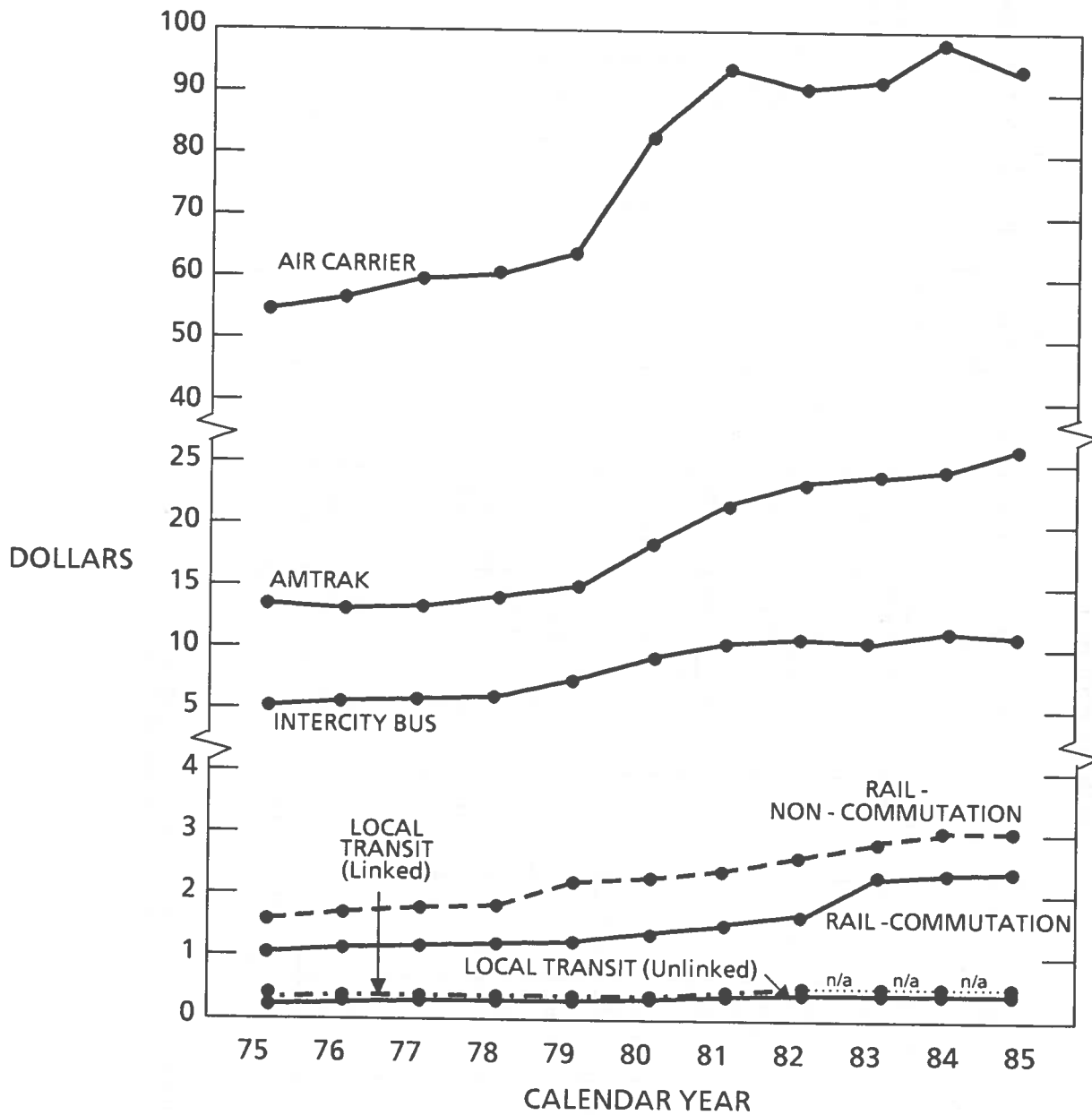


Figure 10. Average Passenger Fare, 1975-1985

n/a = not available.

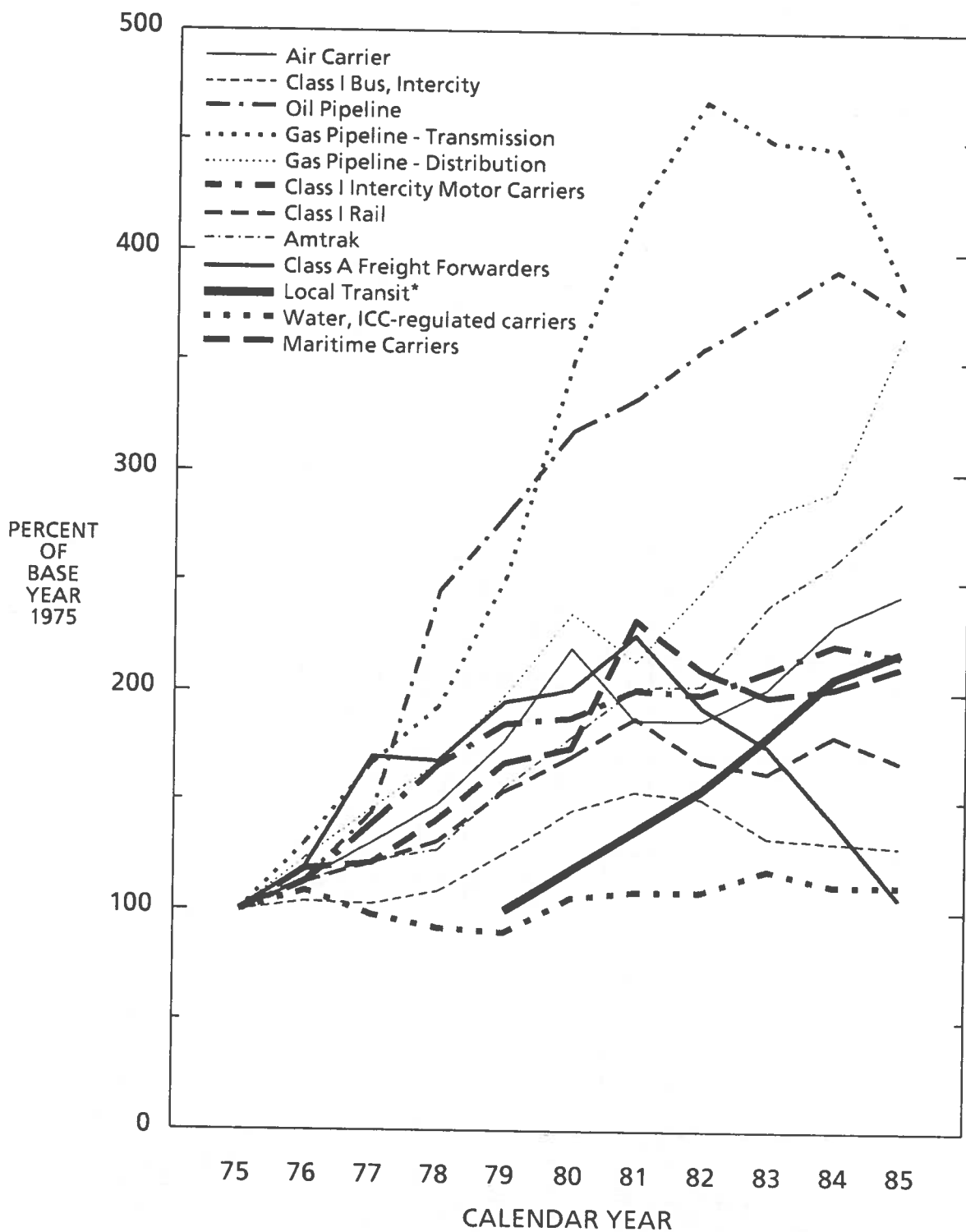


Figure 11. Total Operating Revenues, 1975-1985

* Base year equals 1979.

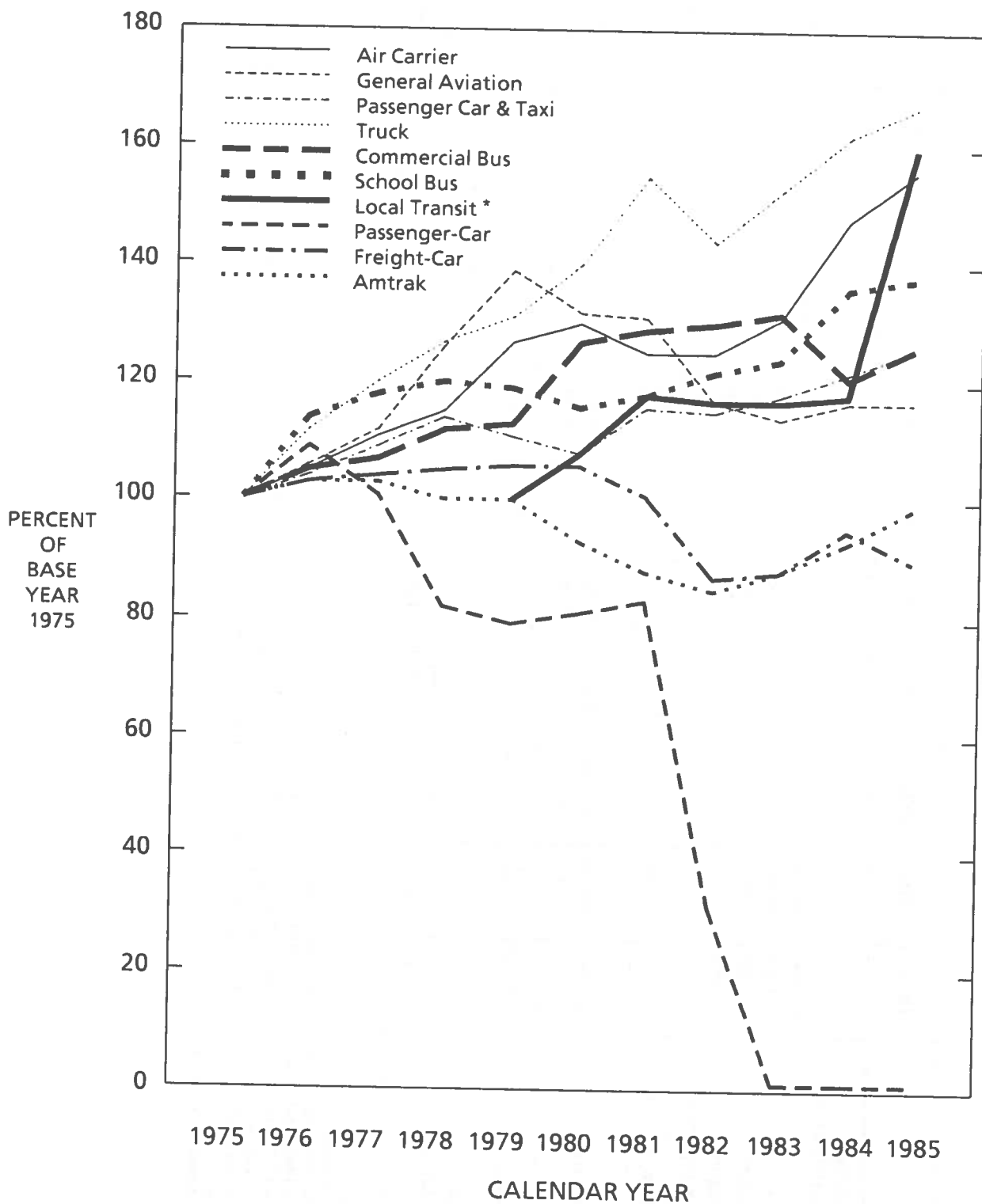


Figure 12. Vehicle-Miles, 1975-1985

* Base year equals 1979.

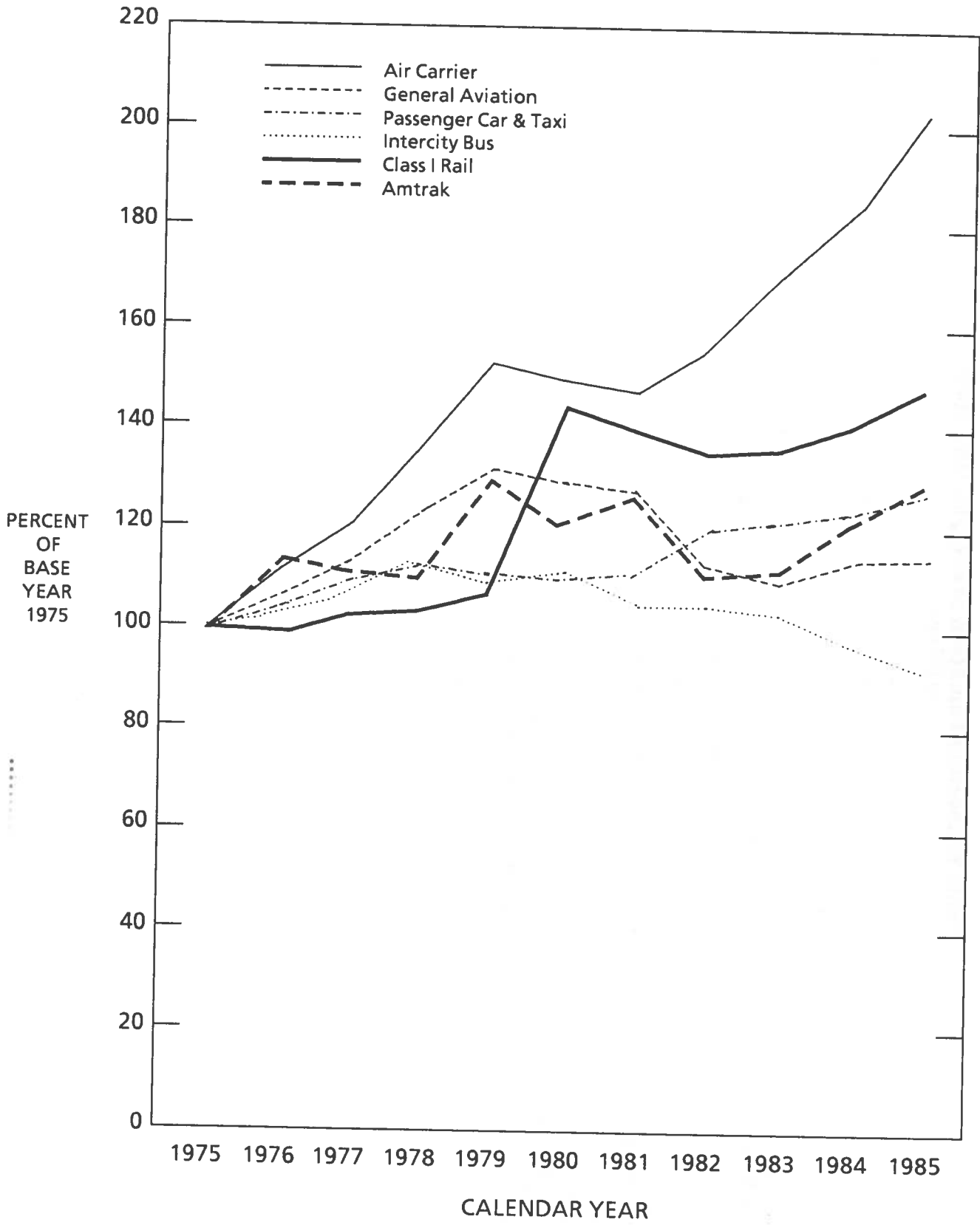


Figure 13. Passenger Miles, 1975-1985

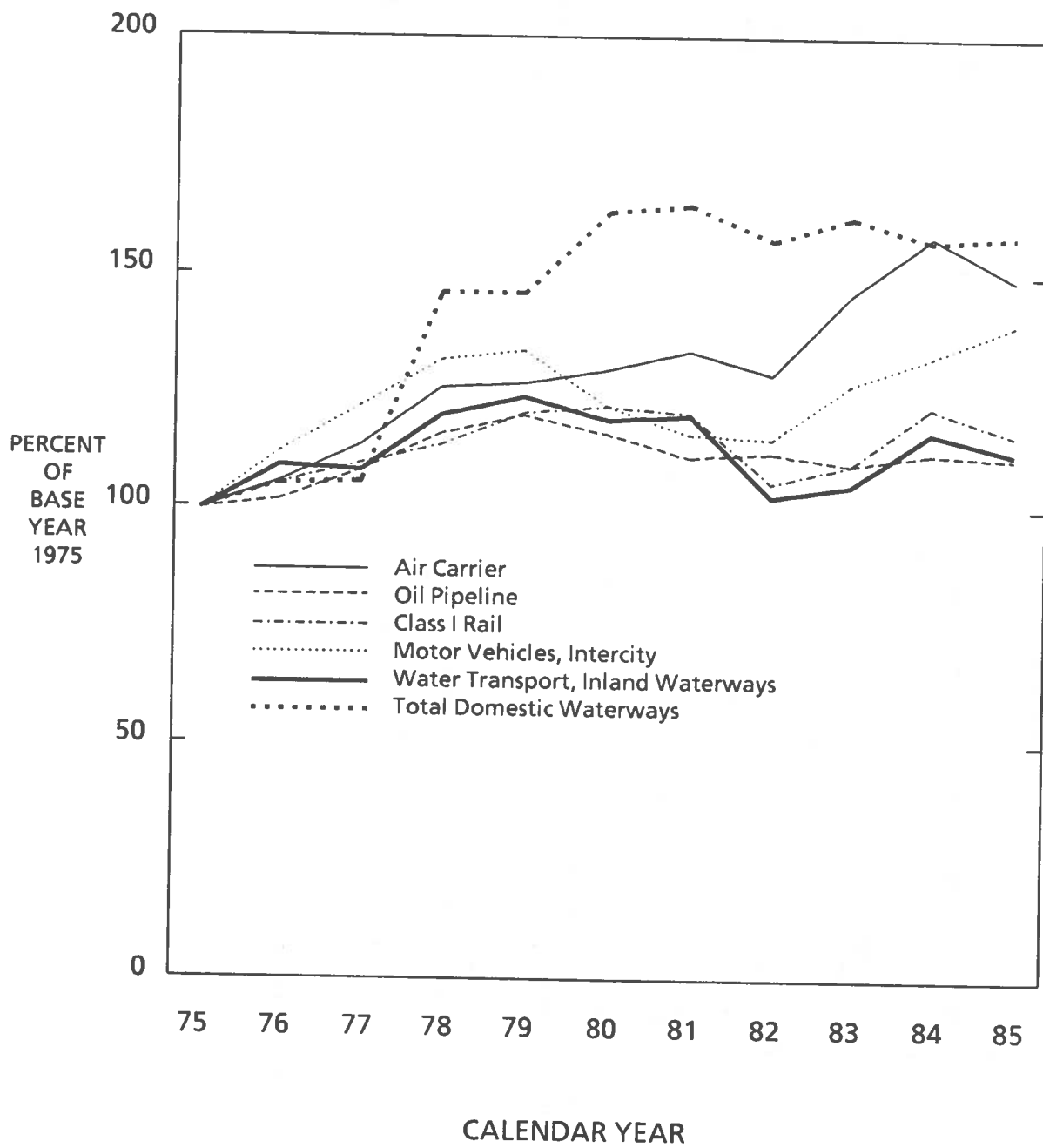


Figure 14. Revenue Ton-Miles of Freight, 1975-1985

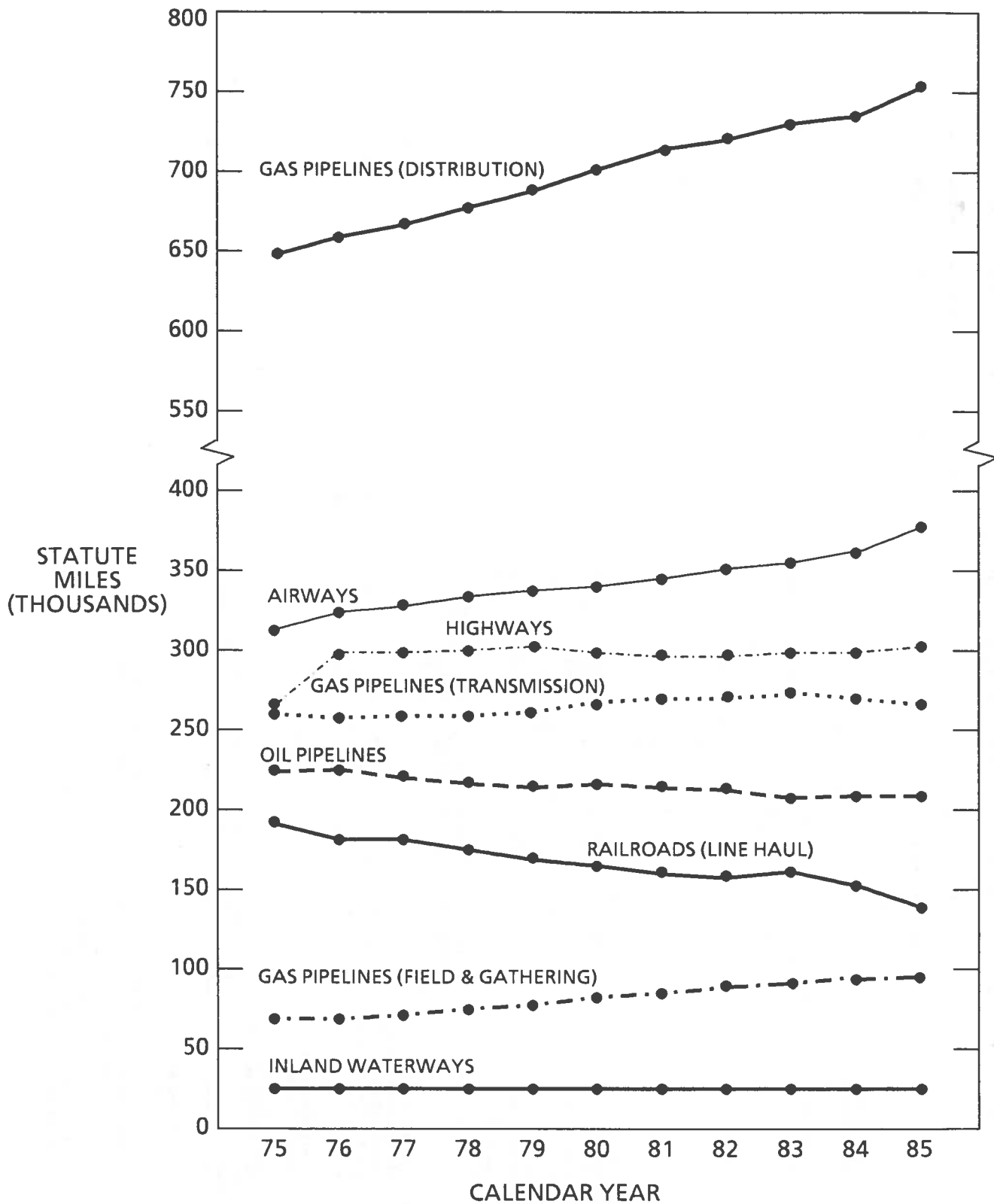


Figure 15. Basic Intercity Mileage Within the Continental United States, 1975-1985

Table 10. Number of New Vehicles Purchased by Mode, 1975-1985

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Air Carrier (all services)	315	222	155	241	376	387	387	232	262	185 ^r	278
Fixed-Wing											
General Aviation	14,248	15,820	17,175	18,049	16,883	11,777	10,114	4,055	2,784	2,635	2,624
Passenger car & taxi**	8,640,000	10,110,000	11,185,000	11,312,000	10,558,800	8,980,000	8,535,000	7,980,000	9,179,000	10,394,000	11,039,000
Motorcycles	940,000 ^r	1,050,000 ^r	1,080,000 ^r	975,000 ^r	1,085,000 ^r	1,070,000 ^r	1,065,000 ^r	990,000 ^r	1,185,000 ^r	1,305,000 ^r	1,260,000 ^r
Mopeds	32,000	78,000	190,000	350,000	130,000	182,000 ^r	67,000	18,000	22,000	33,000	30,000
Bicycles	7,300,000	8,100,000	9,400,000	9,400,000	10,800,000	9,000,000	8,900,000	6,800,000	9,000,000	10,100,000	11,400,000
Truck (domestic)	2,351,000	3,040,000	3,500,600	6,920,860	3,120,159	2,231,500	1,972,200	2,247,800	2,709,400	3,485,000 ^r	3,913,000
Intercity bus (Class I)	733	619*	709	635	680	800	2,200 [†]	2,000 [†]	476	n/a	n/a
Local transit ⁺⁺											
Motorbus	5,261	4,475	2,437	3,805	3,440	4,572	4,059	2,962	4,081	3,444 ^r	3,296
Light rail	0	4	62	35	70	32	188	10	30	59 ^r	63
Heavy rail	127	472	506	172	94	130	274	126	88	521 ^r	441
Trolley coach	1	260	198	0	141	98	0	0	0	0	0
Total	5,389	5,481	3,203	4,012	3,745	4,832	4,523	3,098	4,199	4,024 ^r	3,800
Class I Railroad											
Freight cars	40,986 ^r	31,757 ^r	29,478 ^r	29,067 ^r	31,986 ^r	31,006 ^r	19,963 ^r	6,420 ^r	1,486 ^r	1,318	1,098
Locomotives	772	438	820	1,214	1,709	1,466	470	323	200	428	515
Passenger train-cars	156	44	20	42	43	44	0	1	n/a	n/a	n/a
Total	41,914 ^r	32,239 ^r	30,318 ^r	30,323 ^r	33,738 ^r	32,516 ^r	20,433 ^r	6,744 ^r	1,686 ^r	1,746	1,613
Amtrak											
Passenger train-cars	109	305	133	1	56	108	119	101	31	0	74
Locomotives	30	58	4	75	39	17	43	35	0	0	0
Total	139	363	137	76	95	125	162	136	31	0	74
Water transport											
Merchant vessels	15	1	18	14	15	23	12	11	14	12	14
Gross tonnage	452,000	616,000	920,198	911,791	1,148,530	693,200	427,979	342,000	409,100	389,900	581,300

n/a = not available.

r = revised.

* Change in Class I definition.

** Includes domestic and imported vehicles.

† 1981 and 1982 data include all carriers.

++ New transit passenger vehicles delivered, excludes commuter railroad, vans, ferry boats and other modes not listed.

Source: See Appendix A, pp. A-21, A-22.

Table 12. Air Travel Arrivals Between the United States and Foreign Countries, 1975 to 1986
(thousands)

Arrivals

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Flag of Carrier and Country												
Total Passengers	12,646	13,964	14,701	16,955	19,268	20,262	20,881	20,216	20,840	23,212	24,154	25,608
Flag of Carrier:												
United States	6,502	7,124	7,487	8,551	9,864	10,031	10,265	10,163	10,698	11,623	11,797	12,254
Foreign	6,144	6,840	7,214	8,404	9,404	10,231	10,615	10,054	10,142	11,588	12,357	13,354
Country of embarkation ¹												
Australia	106	124	127	147	208	227	229	254	242	277	277	313
Bahamas, The	758	790	799	993	1,078	1,123	1,053	1,153	1,344	1,373	1,503	2,488
Barbados	76	85	104	117	139	135	123	115	167	211	216	218
Belgium	144	140	113	113	187	242	249	299	250	242	281	316
Bermuda	398	452	441	426	469	497	451	441	439	441	434	500
Brazil	212	183	186	219	253	300	311	308	308	321	352	433
China/Taiwan	50	57	67	92	96	113	138	148	154	187	206	254
Colombia	173	188	212	232	281	315	334	314	309	285	279	281
Denmark	222	238	238	248	260	267	251	243	230	239	241	247
Dominican Republic	336	367	416	429	465	468	495	501	532	575	606	705
France	512	602	611	656	707	689	686	695	705	795	955	908
Germany, Fed. Rep. of	622	815	863	963	1,053	1,175	1,182	1,174	1,223	1,404	1,582	1,582
Grand Cayman	25	63	68	81	96	121	129	132	144	170	173	199
Greece	121	161	198	220	231	208	206	198	234	265	187	86
Haiti	91	97	101	120	142	133	148	146	159	175	192	179
Hong Kong	98	123	91	112	187	228	230	197	217	295	270	304
Ireland	220	239	251	244	263	220	229	250	222	256	274	300
Israel	84	109	134	139	190	189	190	189	233	255	294	187
Italy	431	447	471	530	572	537	493	529	572	649	662	506
Jamaica	457	388	327	427	492	429	479	587	682	712	707	851
Japan	1,095	1,180	1,213	1,308	1,579	1,624	1,705	1,819	1,896	2,267	2,435	2,612
Korea, Rep. of	105	119	117	118	169	234	228	245	249	290	390	509
Mexico	1,626	1,661	1,647	2,118	2,611	2,886	3,091	2,456	2,691	2,901	2,719	2,843
Netherlands	312	314	322	371	460	427	450	482	467	558	583	589
Netherlands Antilles	213	272	269	307	353	327	359	332	370	426	407	465
Panama Republic	97	119	122	127	154	150	151	146	146	169	180	176
Philippines	108	148	136	175	163	194	244	212	158	165	145	144
Spain	306	279	299	335	333	312	310	337	376	418	419	304
Switzerland	236	308	345	339	321	312	321	332	314	427	452	416
United Kingdom	1,549	1,869	2,102	2,596	2,689	2,973	3,092	2,694	2,812	3,222	3,460	3,215
Venezuela	205	225	282	355	431	533	577	581	312	255	248	359
Other	1,658	1,802	2,029	2,298	2,636	2,674	2,747	2,707	2,683	2,987	3,027	3,119

Covers passengers on international commercial flights arriving at U.S. airports. Excludes traffic between U.S. and Canada, border crossers, crewmen, and military personnel. Travelers between U.S. ports in the 50 States, Puerto Rico, Guam, or the Virgin Islands, and any other outlying area are included. Data compiled from flight reports of U.S. Immigration and Naturalization Service.

¹ Country where passenger boarded/deboarded a direct flight to/from the U.S.

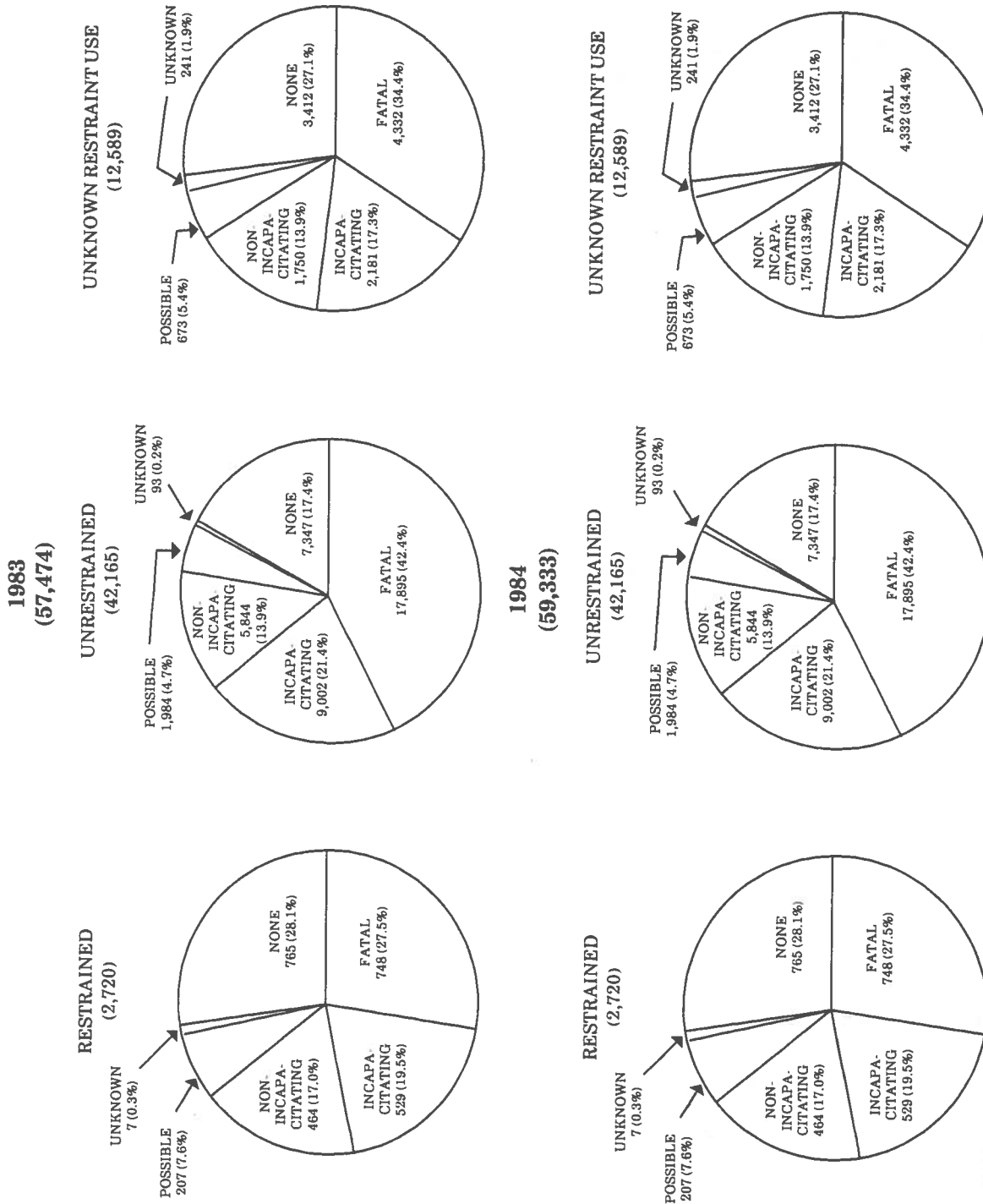
Note: Sum of components may not equal total due to independent rounding.

Source: U.S. DOT/Transportation Systems Center, Center for Transportation Information, Cambridge, MA, U.S. *International Air Travel Statistics*, annual.

TRANSPORTATION TRENDS

Section II: Safety

Figure 16. Injury Severity of Passenger Car Occupants in Fatal Accidents, 1981-1985 (cont'd)



**Table 14. Number of Fatalities by Mode
1975-1986**

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
HIGHWAY												
Motor Vehicle Traffic	44,525	45,523	47,878	50,331	51,093	51,091	49,301	43,945	42,589	44,257	43,825	46,056
Motor Carriers of Property ¹	2,232	2,520 ^r	2,983	2,998	3,072	2,528	2,810	2,479	2,528	2,721	2,646	n/a
Motor Carriers of Passengers ¹	59	62	87	68	60	74	95	76	67	57	62	n/a
RAILROAD												
Rail-Highway Grade Crossing	966	1,174	996	1,064	883	833	728	607	575	649	576	615
Rail ²	575	510	534	582	546	584	556	512	498	598	454	475
RAIL RAPID TRANSIT	n/a	n/a	70	50	62	83	103	87 ^c	50 ^c	55 ^c	15 ^c	34 ^p
AVIATION												
U.S. Air Carriers ³	124	38	655	160	354	1	4	234	15	4	526 ^p	4 ^p
Commuter Air Carriers ⁴	28	27	32	48	66	37	34	14	11 ^r	48 ^r	37 ^p	4 ^p
On-Demand Air Taxis ⁵	69	100	118	155	77	105	94	72	62	52	76 ^p	64 ^p
U.S. General Aviation ⁶	1,252	1,216	1,276	1,556	1,221	1,239	1,282	1,187 ^r	1,064 ^r	1,039 ^r	957 ^p	958 ^p
MARINE												
Waterborne Transportation	243	248	157	186	174	206	154	223	289	113	131	n/a
Recreational Boating	1,462	1,264	1,312	1,321	1,400	1,360	1,206	1,178	1,241	1,063	1,116	1,066
MATERIALS TRANSPORT												
Liquid Pipeline	7	5	3	3	4	3	5	0	6	0	5	3 ^p
Gas Pipeline	14	63	36	31 ^a	45 ^a	11	17	31	12 ^b	35 ^b	28	23 ^p
Hazardous Materials	27	24	26 ^r	45	17	19	25	12	8	7	8	16 ^p

n/a = not available.

r = revised.

p = preliminary.

a Includes preliminary notification of Pipeline leaks via telephone reports.

b Beginning with 1983 data, Pipeline Incidents are credited to the year in which they occurred, not the year in which the report was received.

c Fatalities resulting from train and nontrain accidents. Prior to 1982, fatality data include train accidents, train incidents and nontrain incidents.

1 Includes only those motor carriers operating in interstate or foreign commerce.

2 Fatalities resulting from train accidents, train incidents and non-train incidents.

3 Large carriers operating under 14 CFR 121, 125, and 127 only, all scheduled and nonscheduled service.

4 All scheduled service operating under 14 CFR 135 (commuter air carriers).

5 Non-scheduled service operating under 14 CFR 135 (on-demand air taxis).

6 All operations other than those operated under 14 CFR 121 and 14 CFR 135. Includes air carrier fatalities when in collision with General Aviation aircraft.

Source: See Appendix A, pp. A-22, A-23.

TRANSPORTATION TRENDS

Section III: Sales and Production

**Table 17. U.S. Retail Sales of New Cars by Sector
1975-1986**

Year	UNITS BY CONSUMING SECTOR (000)				% OF TOTAL SALES	
	Consumer	Business	Government	Total	Consumer	Business
1975	5,907	2,508	123	8,538	69.2	29.4
1976	7,036	2,822	137	9,994	70.4	28.2
1977	7,657	3,220	169	11,046	69.3	29.2
1978	7,548	3,456	161	11,164	67.6	31.0
1979	7,132	3,285	142	10,559	67.5	31.1
1980	6,062	2,791	126	8,979	67.5	31.1
1981	5,623	2,787	116	8,535	66.0	32.7
1982	5,285	2,593	102	7,980	66.2	32.5
1983	6,054	3,006	119	9,179	66.0	32.7
1984	6,590	3,669	135	10,394	63.4	35.3
1985	7,083	3,822	134	11,039	64.2	34.6
1986	7,568	3,745	137	11,450	66.1	32.7

Source: Motor Vehicle Manufacturers Association of the U.S., Inc., *Facts and Figures*, 1987, p. 16.

SUPPLEMENTARY DATA

Section I: Transportation and the Economy 1975-1985/1986

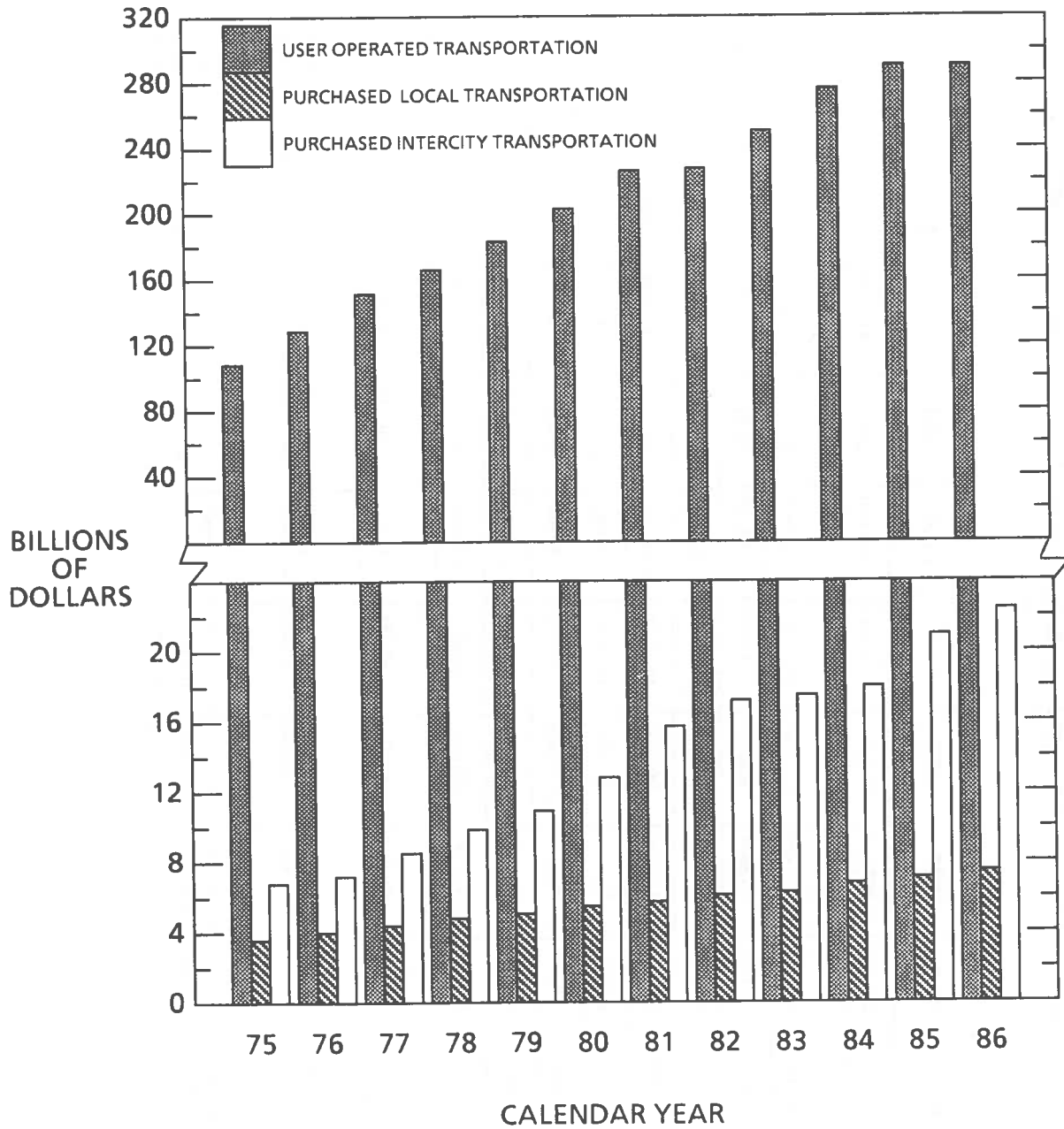


Figure 18. Personal Consumption Expenditures by Transportation Sector, 1975-1986

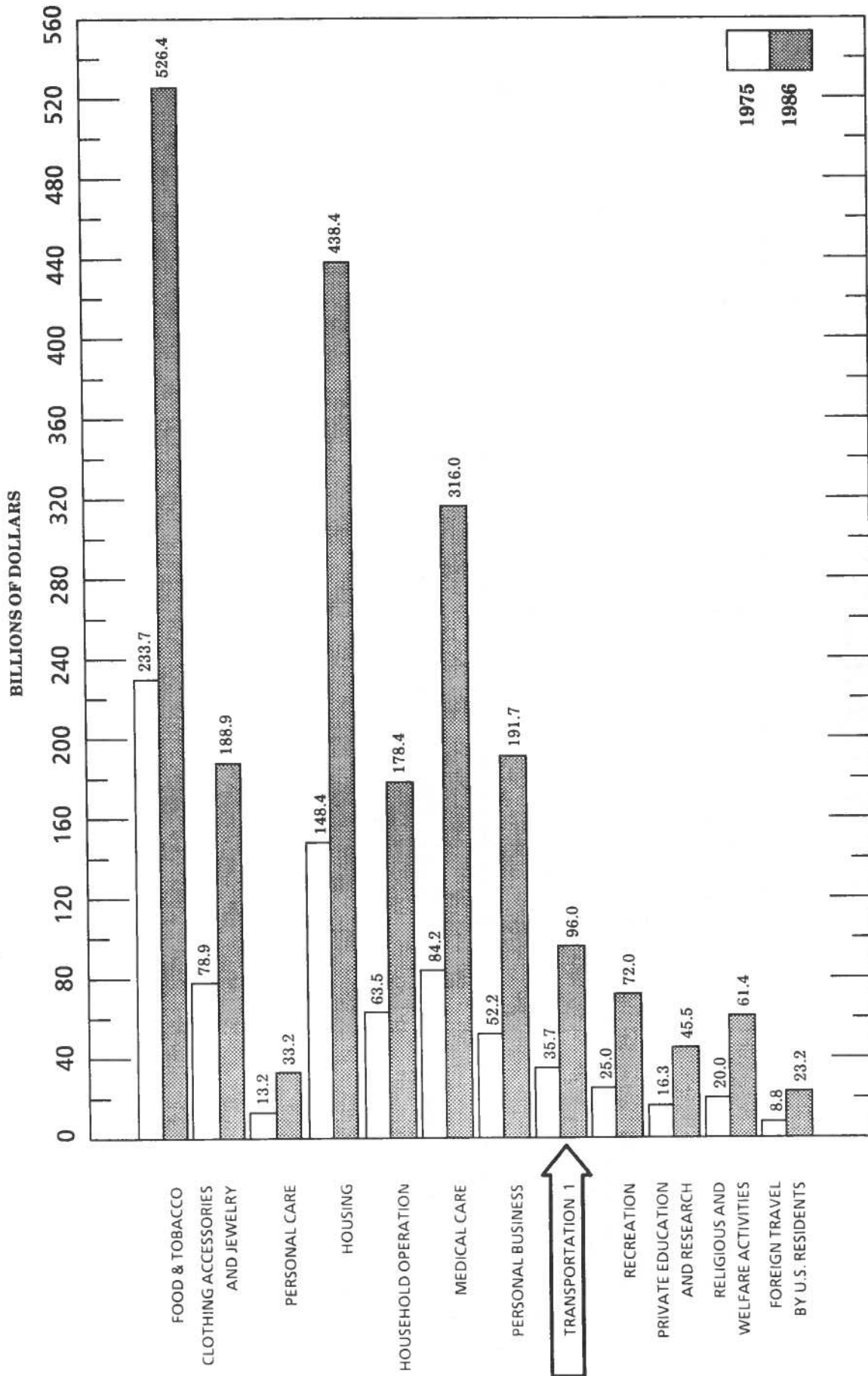


Figure 19. Personal Consumption Expenditures by Type of Product, 1975 and 1986

1 Excluding Foreign Travel

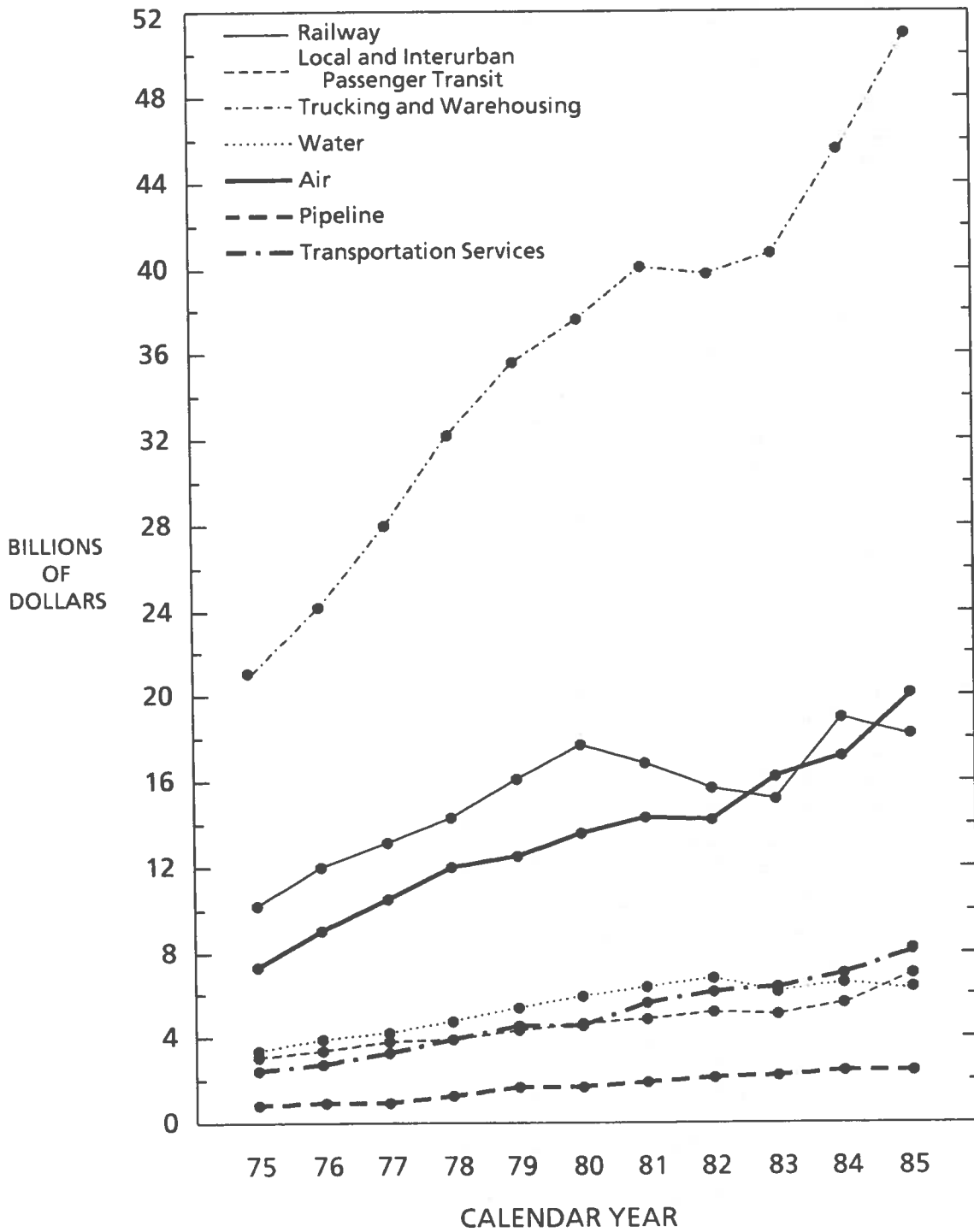


Figure 20. National Income by Transportation Sector, 1975 - 1985

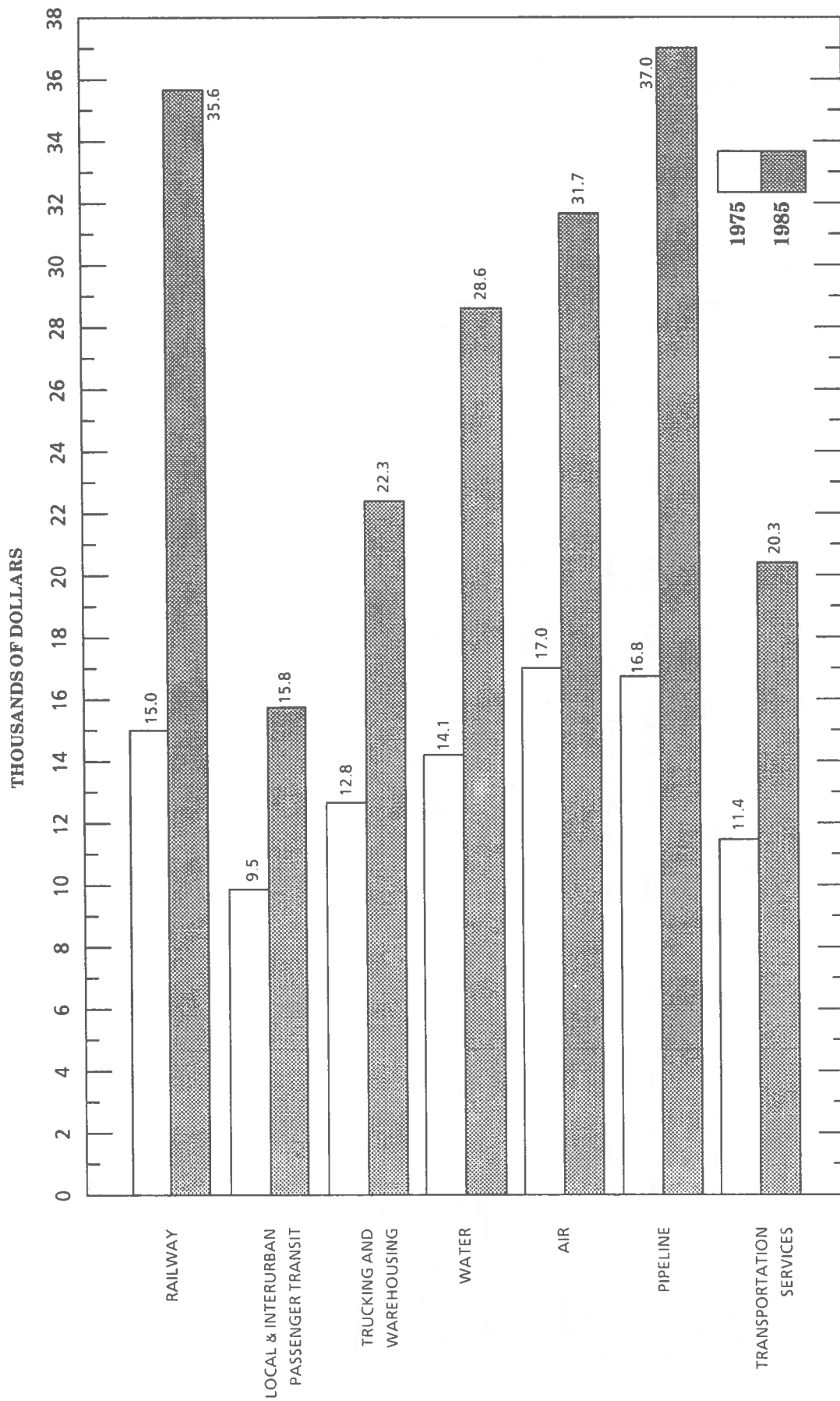


Figure 21. Wages and Salaries per Full-Time Employee by Transportation Sector, 1975 and 1985

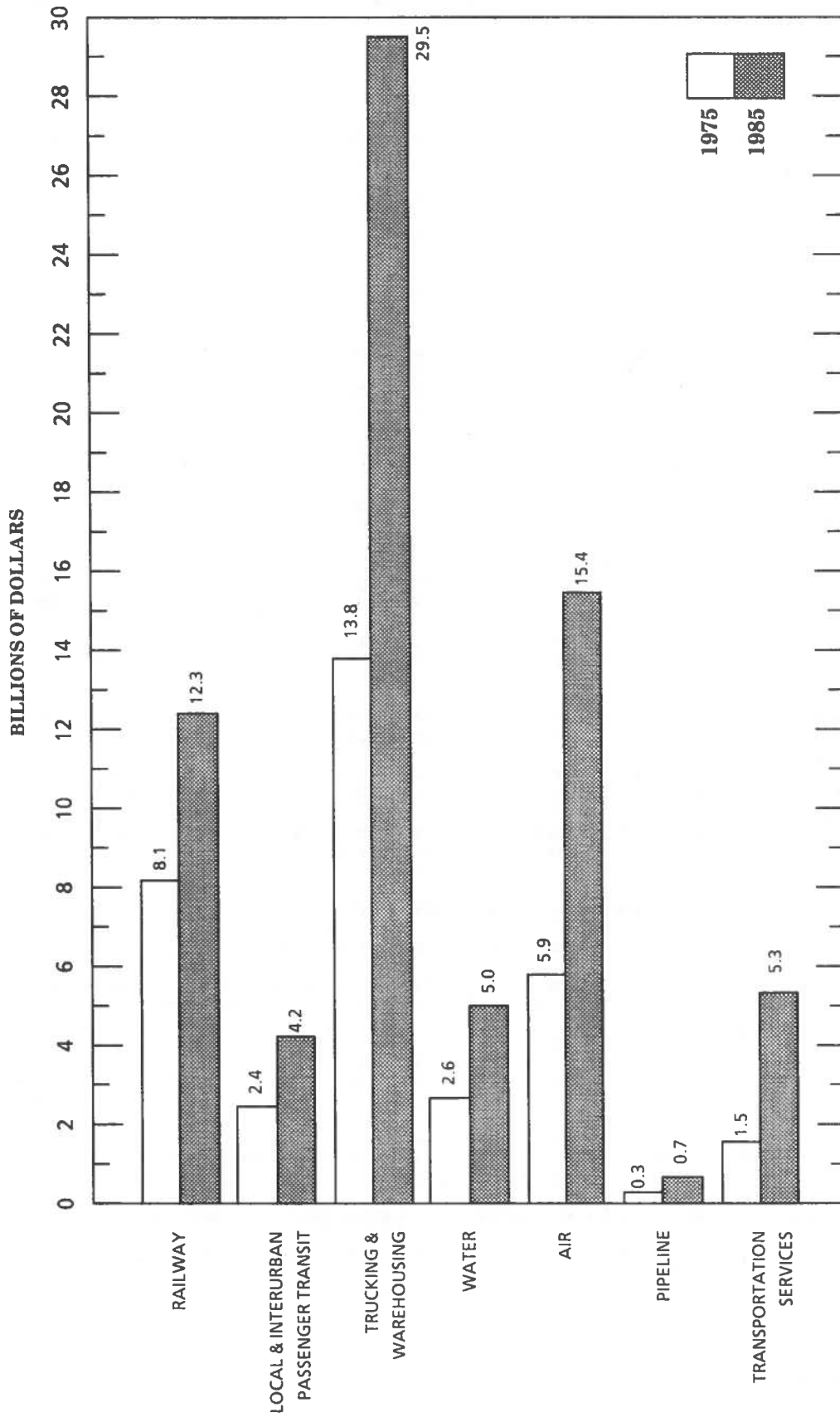


Figure 22. Wages and Salaries by Transportation Sector, 1975 and 1985

Table 25. National Transportation and Economic Trends, 1975-1985
(billions)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Total passenger-miles	2,418 ^r	2,564 ^r	2,672 ^r	2,812 ^r	2,747 ^r	2,704	2,807	2,953 ^r	3,082 ^r	3,187 ^r	3,312
Index *	133	141	147	155	151	149	155	163	170	175	182
Total revenue ton-miles	2,627	2,787	2,899	3,284	3,387	3,395	3,345	3,126	3,243	3,387	3,357
Index *	116	123	128	145	149	150	147	138	143	149	155
Population (millions)	216 ^r	218	220	222	225	228 ^r	230	233 ^r	235 ^r	237 ^r	239
Index *	109	110	111	112	113	116	116	117	119	120	121
Industrial production	85	93	100	107	111	109	111	103	109	122	125
Gross national product (current dollars)	1,598	1,783	1,991	2,250	2,508	2,732	3,053	3,166	3,406 ^r	3,765 ^r	3,998
Index *	201	223	249	281	314	342	383	397	426	471	500

^r = revised.

* Index = 100 in 1967.

Source: See Appendix A, p. A-26.

Table 27. Expenditures and Overseas Travel by U.S. Residents and Foreign Visitors, 1975-1985

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
U.S. residents- Overseas travelers (thousands)	6,354	6,897	7,390	7,790	7,835	8,163	8,040	8,510	9,628 ^r	4,252 ^r	12,316
Average expenditures Overseas (dollars)	547 ^r	533	543	635 ^r	683 ^r	737 ^r	814 ^r	838 ^r	808 ^r	838 ^r	833
Total travel and passenger fare transactions (millions of dollars)	8,680	9,424	10,199	11,371	12,597	14,004	15,966	17,166	19,481	22,516	23,824
Travel payments in foreign countries (millions of dollars)	6,417	6,856	7,451	8,475	9,413	10,397	11,479	12,394	13,556 ^r	15,449 ^r	16,502
Passenger fare payments to foreign countries (millions of dollars)	2,263	2,568	2,748	2,896	3,184	3,607	4,487	4,772	5,484	6,502 ^r	7,322
Foreign visitors to U.S. (thousands)	3,674	4,456	4,509	5,764	7,230	8,200	9,069	8,761	7,873	7,527 ^r	7,538
Average expenditures of visitors (dollars)	497	537	595	604	605	679	713	761	799	844 ^r	877
Total travel and passenger fare transactions (millions of dollars)	5,464	6,697	7,175	8,421	10,118	10,650	13,488	13,085	13,932	13,919	14,148
Travel receipts in U.S. (millions of dollars)	4,697	5,742	6,150	7,183	8,441	10,588	12,913	12,393	11,408	11,353 ^r	11,663
Passenger fare receipts in U.S. (millions of dollars)	767	937	1,025	1,238	1,677	2,062	2,575	2,692	2,524	2,538 ^r	2,485

^r = revised.

Source: See Appendix A, pp. A-26, A-27.

SUPPLEMENTARY DATA
Section II: Energy in Transportation

Part 1. Energy Consumption

**Table 30. Coal Consumption by End-Use Sector
(at 5-Year Intervals 1955-1965 and Annually 1966-1986)
(million short tons)**

Year	Industry and Miscellaneous					Residential and Commercial	Total
	Electric Utilities	Coke Plants	Other Industry and Miscellaneous	Total	Transportation		
1955	143.8	107.7	110.1	217.8	17.0	68.4	447.0
1960	176.7	81.4	96.0	177.4	3.0	40.9	398.1
1965	244.8	95.3	105.6	200.8	0.7	25.7	472.0
1966	266.5	96.4	108.7	205.1	0.6	25.6	497.7
1967	274.2	92.8	101.8	194.6	0.5	22.1	491.4
1968	297.8	91.3	100.4	191.6	0.4	20.0	509.8
1969	310.6	93.4	93.1	186.6	0.3	18.9	516.4
1970	320.2	96.5	90.2	186.6	0.3	16.1	523.2
1971	327.3	83.2	75.6	158.9	0.2	15.2	501.6
1972	351.8	87.7	72.9	160.6	0.2	11.7	524.3
1973	389.2	94.1	68.0	162.1	0.1	11.1	562.6
1974	391.8	90.2	64.9	155.1	0.1	11.4	558.4
1975	406.0	83.6	63.6	147.2	*	9.4	562.6
1976	448.4	84.7	61.8	146.5	*	8.9	603.8
1977	477.1	77.7	61.5	139.2	*	9.0	625.3
1978	481.2	71.4	63.1	134.5	*	9.5	625.2
1979	527.1	77.4	67.7	145.1	*	8.4	680.5
1980	569.3	66.7	60.3	127.0	*	6.5	702.7
1981	596.8	61.0	67.4	128.4	*	7.4	732.6
1982	593.7	40.9	64.1	105.0	*	8.2	706.9
1983	625.2	37.0	66.0	103.0	*	8.4	736.7
1984	664.4	44.0	73.7	117.8	*	9.1	791.3
1985 ^r	693.8	41.1	75.4	116.4	*	7.8	818.0
1986 ^p	685.1	37.1	76.1	113.2	*	7.9	806.2

^r = revised.

^p = preliminary, except for Electric Utilities which is final.

* = less than 0.05 million short tons. Quantities are included in the Other Industry and Miscellaneous category. Sum of components may not equal total due to independent rounding.

Source: U.S. DOE/EIA, *Annual Energy Review 1986*, Table 75.

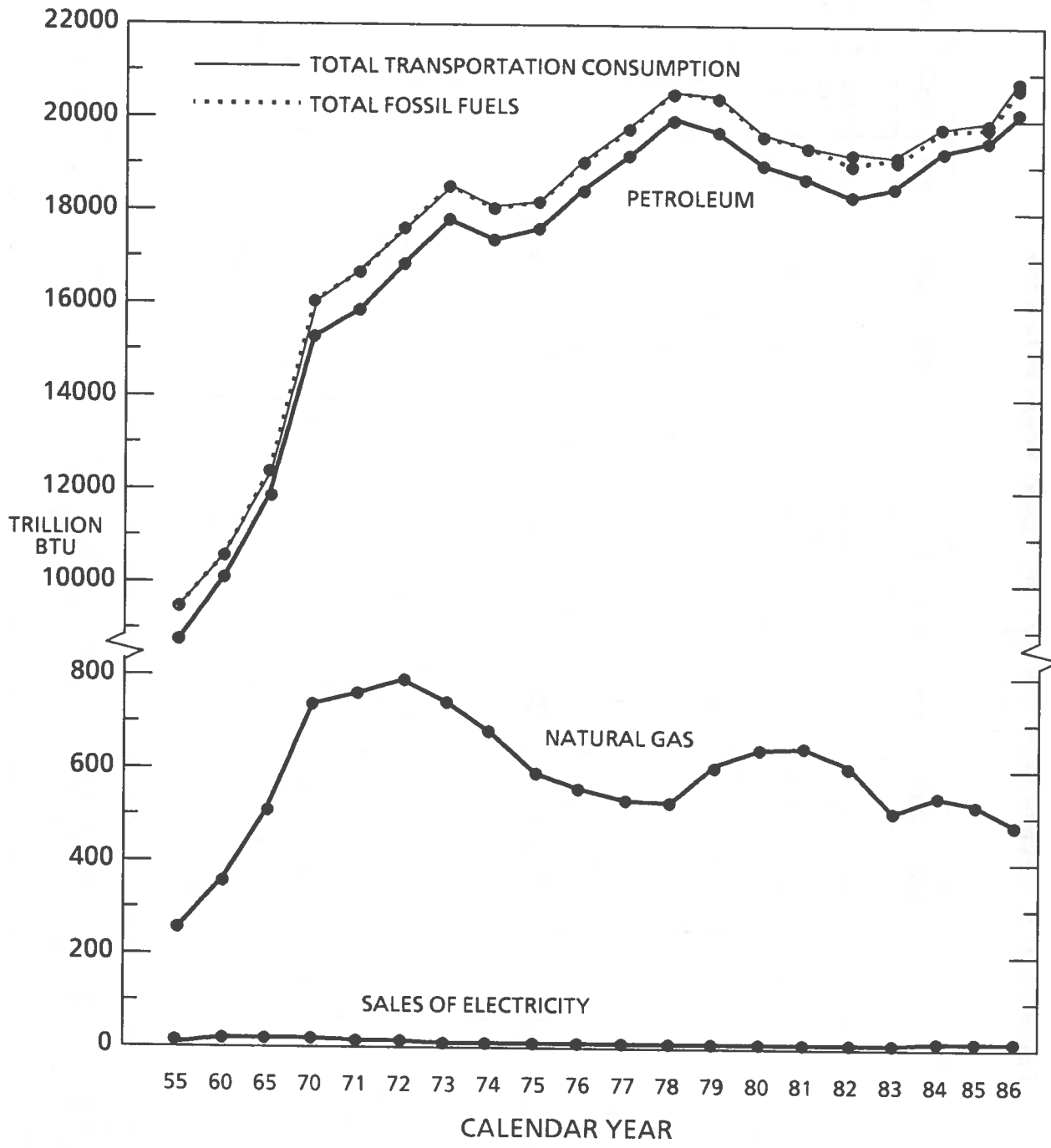


Figure 23. U.S. Energy Consumption by the Transportation Sector, 1955-1986

Table 33. U.S. Government Energy Use by Agency, by Source, Fiscal Years 1976 and 1986 (trillion Btu)

	Petroleum					Electricity	Natural Gas	Coal and Other ²	Total
	Motor Gasoline	Distillate and Residual Fuel Oils	Other ¹	Total					
1976									
Defense	31.7	292.5	617.1	941.2	287.5	110.5	47.6	1,386.8	
Energy	1.1	5.2	0.3	6.5	52.3	8.3	20.1	87.2	
Postal Service	10.1	4.3	0.6	15.0	39.9	2.7	0.7	58.3	
Veterans Administration	0.2	2.3	0	2.5	29.0	4.3	5.3	41.1	
General Services Administration	0.6	5.7	0	6.4	15.7	12.7	1.7	36.5	
Transportation	1.5	7.9	5.6	15.0	11.1	1.0	0.3	27.4	
NASA	0.4	1.4	1.2	3.0	17.7	3.6	0.9	25.1	
Agriculture	5.0	1.0	0.4	6.5	3.3	1.8	0	11.6	
Interior	2.7	2.6	0.7	6.0	5.2	1.8	0.1	13.1	
Health and Human Services	0.8	2.9	0.1	3.8	4.0	1.7	0.1	9.6	
Justice	2.1	0.8	0.1	2.9	2.0	1.9	0.4	7.1	
Other ³	3.7	3.1	0.3	7.0	6.0	1.6	0.4	15.0	
Total	59.9	329.7	626.3	1,015.9	473.5	151.8	77.7	1,718.9	
1986^P									
Defense	23.6	272.7	707.6	1,003.9	336.2	99.8	50.3	1,490.3	
Energy	1.4	3.4	0.7	5.5	59.5	6.4	20.7	92.9	
Postal Service	9.5	3.5	0.2	13.2	32.8	4.5	1.0	51.5	
General Services Administration	0.1	0.7	0	0.8	27.3	2.8	3.2	34.1	
Veterans Administration	0.5	2.2	0	2.7	23.7	14.2	1.1	41.8	
Transportation	1.3	8.2	5.5	15.1	13.1	1.1	0.3	29.6	
NASA	0.3	0.8	1.4	2.6	19.0	2.6	0.5	24.6	
Agriculture	3.0	0.5	0.3	3.7	5.6	1.3	0	10.6	
Interior	2.1	1.4	1.1	4.5	4.3	0.8	0.3	9.9	
Health and Human Services	0.3	2.6	0.1	3.0	6.3	1.3	0.1	10.7	
Justice	1.7	0.4	0.1	2.3	3.3	2.0	0.4	7.9	
Other ³	2.8	1.8	0.4	4.3	10.0	2.8	0.5	17.3	
Total	46.6	298.2	717.4	1,062.6	540.1	140.6	78.4	1,820.3	

^P = preliminary. Energy usage data for Department of Defense, Department of Labor, Department of Justice, Department of Transportation, and Department of Treasury are estimated.

¹ Includes aviation gasoline, jet fuel, liquefied petroleum gases, and other.

² Includes purchased steam, coal and other.

³ Includes Department of Commerce, Panama Canal Commission, Tennessee Valley Authority, Department of Labor, National Science Foundation, Department of Treasury, Federal Communications Commission, and Environmental Protection Agency.

Note: Sum of components may not equal total due to independent rounding.

These data include energy consumed at foreign installations and in foreign operations, including aviation and ocean bunkering, primarily by the Department of Defense. U.S. Government energy use for electricity generation and uranium enrichment is excluded. However, other energy used by U.S. agencies that produce electricity or enrich uranium is included.

Source: U.S. DOE/EIA, *Annual Energy Review 1986*, Table 9.

Table 35. Fuel Consumption by Certificated Air Carriers, 1975-1985
(scheduled and nonscheduled service)
(thousands of gallons)

Year	Total Certified Route Air Carriers	Domestic Operations					International Operations			
		Passenger/Cargo Carriers					Total Int'l ¹ Operations	Majors ⁴	Other ³	Other
		Total Domestic Operations	Majors ¹	Nationals ²	Other ³	Other				
1975	9,506,600	7,557,700	6,650,000	725,800	181,900	1,948,900	1,756,700	192,200		
1976	9,808,051	8,008,306	7,043,139	766,019	109,149	1,799,745	1,635,266	164,479		
1977	10,268,024	8,416,730	7,373,856	828,195	214,679	1,851,294	1,683,513	167,781		
1978	10,639,227	8,726,033	7,527,587	918,531	279,915	1,913,194	1,741,918	171,276		
1979	11,368,702	9,376,064	7,848,761	1,017,118	510,185	1,992,638	1,830,001	162,637		
1980	11,034,038	9,096,323	7,424,555	1,094,678	577,090	1,937,715	1,764,506	173,209		
1981	10,587,769	8,555,248	7,263,415	1,119,021	172,812	2,032,520	1,654,395	378,125		
1982	10,405,726	8,438,672	6,936,089	1,231,483	271,101	1,967,054	1,589,285	377,769		
1983	10,670,863	8,672,574	7,136,444	1,162,543	373,586	1,998,289	1,670,922	327,367		
1984	11,910,302	9,623,895	7,439,082	1,702,290	482,523	2,286,407	1,833,195	453,212		
1985	12,598,193	10,121,329	7,726,689	2,106,161	288,479	2,476,864	2,052,972	423,892		

¹ Prior to 1981, categorized as domestic trunk.

² Prior to 1981, categorized as local service.

³ Prior to 1981, included helicopter carriers.

⁴ Prior to 1981, categorized as international trunk.

Note: Sum of components may not equal total due to independent rounding.

Source: 1975: CAB, *Handbook of Airline Statistics, 1975*, Part II, Table 57, and advance information based on CAB Form 41, Schedule T-2(b), Quarterly Reports.

1976-1980: *Ibid.*, *Fuel Cost and Consumption, Twelve Months Ended December 31, 1980 and 1979*, Tables 1, 2, 3, 4, 6, 7, and similar tables in earlier editions.

1981: *Ibid.*, *Twelve Months Ended December 31, 1982 and 1981*.

1982-1983: *Ibid.*, *Twelve Months Ended December 31, 1983 and 1982*.

1984-1985: *Ibid.*, *Twelve Months Ended December 31, 1985 and 1984*.

Table 37. Fuel Consumption and Travel by Personal Passenger Vehicles¹, 1975-1985

Year	Number Registered ² (thousands)	Total ² Vehicle Miles Traveled (millions)	Average Miles Traveled per Vehicle		Average Miles Traveled per Gallon		Total Fuel Consumed (millions of gallons)		Average Gallons Consumed per Vehicle	
			Passenger Cars	Motor-cycles	Passenger Cars	Motor-cycles	Passenger Cars	Motor-cycles	Passenger Cars	Motor-cycles
1975	111,670	1,039,579	9,690	1,134	13.52	50	76,447	113	716	23
1976	115,122	1,084,218	9,785	1,217	13.53	50	79,693	120	723	24
1977	117,221	1,115,592	9,879	1,287	13.80	50	80,397	127	716	26
1978	121,441	1,153,666	9,835	1,470	14.04	50	81,661	143	701	29
1979	123,851	1,122,277	9,403	1,593	14.41	50	77,304	173	653	32
1980	127,295	1,121,810	9,141	1,794	15.46	50	71,883	204	591	36
1981	128,929	1,141,517	9,186	1,833	15.94	50	70,954	214	576	37
1982	129,456	1,176,166	9,428	1,722	16.65	50	70,062	198	566	34
1983	132,029	1,206,783	9,475	1,568	17.14	50	69,906	175	553	31
1984	133,638	1,233,703	9,558	1,603	17.83	50	68,717	177	536	32
1985	137,308	1,269,651	9,560	1,669	18.20	50	69,268	182	525	33

r = revised.

¹ For the 50 states and District of Columbia.

² Includes motorcycles.

Source: U.S. DOT/FHWA, *Highway Statistics, Summary to 1985*, Table VM-201A.

Table 39. Fuel Consumption and Travel by Motor Trucks¹, 1975-1985

Year	Number Registered (thousands)	Total Vehicle Miles Traveled (millions)	Average Miles Traveled per Vehicle		Average Miles Traveled per Gallon		Total Fuel Consumed (millions of gallons)		Average Gallons of Fuel Consumed per Vehicle					
			Single-unit Trucks	Combi-nations Trucks	Single-unit Trucks	Combi-nations Trucks	Single-unit Trucks	Combi-nations Trucks	Single-unit Trucks	Combi-nations Trucks				
1975	25,781	282,030	9,829	41,321	10,940	11.21	5.40	8.99	22,717	8,654	31,371	877	7,653	1,217
1976	27,876	311,904	10,127	40,558	11,189	11.20	5.21	8.95	25,304	9,536	34,840	904	7,785	1,250
1977	29,314	345,612	10,607	44,919	11,790	11.44	5.22	9.06	27,454	10,673	38,127	927	8,610	1,301
1978	31,336	385,153	10,968	46,949	12,291	11.62	5.20	9.11	30,162	12,112	42,274	944	9,028	1,349
1979	32,913	400,909	10,802	48,322	12,181	11.80	5.21	9.19	30,778	12,864	43,642	916	9,279	1,326
1980	33,667	399,426	10,437	48,472	11,864	12.33	5.41	9.54	29,157	12,703	41,854	846	8,966	1,243
1981	34,644	405,045	10,244	54,816	11,692	12.51	5.33	9.59	29,271	12,960	42,231	819	10,276	1,219
1982	35,382	413,021	10,276	52,689	11,673	12.84	5.28	9.80	29,505	12,636	42,141	800	9,987	1,191
1983	36,723	440,806	10,497	53,491	12,004	12.82	5.19	9.77	31,674	13,447	45,121	819	10,312	1,229
1984	37,507	481,926	11,150	57,730	12,849	12.93	5.23	9.83	34,269	14,781	49,050	862	11,030	1,308
1985	39,196	499,652	11,016	56,725	12,747	12.86	5.21	9.79	35,756	15,280	51,036	857	10,889	1,302

r = revised.

1 For the 50 States and District of Columbia.

Source: U.S. DOT/FHWA, Highway Statistics, Summary to 1985, Table VM-201A.

Table 41. Average Retail Price of Transportation Fuel (¢/gal.), 1975-1986

Year	Aviation Fuels		Highway Fuels				Railroad Fuel	Marine
	Aviation Gasoline	Jet Fuel Naphtha* Kerosene	Regular	Premium	Unleaded	Truck No. 2 Diesel	Diesel	Bunker 'C' Fuel
1975	41.1	30.7	56.7	60.9	57.1	n/a	30.00	24.66
1976	43.1	31.2	59.0	63.6	61.4	34.7	32.38	24.83
1977	47.7	35.0	62.2	67.4	65.6	39.3	36.38	27.74
1978	51.6	37.5	62.6	69.4	67.0	37.7	37.90	25.74
1979	68.9	52.3	85.7	92.2	90.3	58.5	57.58	35.91
1980	108.4	88.2	119.1	128.1	124.5	81.8	83.00	47.11
1981	130.3	105.7	131.1	147.0	137.8	99.5	100.23	62.66
1982	131.2	97.7	122.2	141.5	129.6	94.2	95.43	56.21
1983	125.5	n/a	115.7	138.3	124.1	82.6	82.73	51.43
1984	123.4	n/a	112.9	136.6	121.2	82.3	82.59	60.64
1985	120.1	n/a	111.5	134.0	120.2	78.9	77.75 ^r	52.76
1986	100.1	n/a	85.7	108.5	92.7	47.9	n/a	30.18

n/a = not available.

* Naphtha jet fuel data is no longer collected by the U.S. DOE after 1982.

Source: Railroad Fuel, Diesel: 1975-1985: *Ibid.*, *Railroad Ten-Year Trends*, 1985, Table II-A-6.

1986: not available.

Marine: 1975-1978: U.S. DOE/EIA, *Monthly Energy Review*, December 1980.

1979-1986: *Platt's Oil Price Handbook*; estimated by Transportation Policy Associates.

Other data: 1975-1986: *Ibid.*, *Monthly Energy Review*, December issues, pp. 100 and 103 and similar tables in earlier editions.

**Table 43. Price Trend of Gasoline vs. Other Consumer Goods and Services
(at 5-Year Intervals 1955-1970 and Annually 1971-1986)**

Year	Retail Price of Regular Grade Gasoline (Cents Per Gallon)			Price Indexes of Regular and Premium Gasoline and Other Consumer Items (Index: 1967 = 100)						
	Service Station Price Excl. Taxes	State and Federal Taxes	Service Station Price Incl. Taxes	All Items	Food	Rent	Apparel and Upkeep	Regular and Premium Gasoline	Entertainment*	
1955	21.42	7.65	29.07	80.2	81.6	84.3	84.1	83.6	76.7	
1960	20.99	10.14	31.13	88.7	88.0	91.7	89.6	92.5	87.3	
1965	20.70	10.45	31.15	94.5	94.4	96.9	93.7	94.9	95.9	
1970	24.55	11.14	36.69	116.3	114.9	110.1	116.1	105.6	116.7	
1971	25.20	11.23	36.43	121.3	118.4	115.2	119.8	106.3	122.9	
1972	24.46	11.67	36.13	125.3	123.5	119.2	122.3	107.6	126.5	
1973	26.88	11.94	38.83	133.1	141.4	124.3	126.8	118.1	130.0	
1974	41.20	12.00	53.20	147.7	161.7	130.6	136.2	159.9	139.8	
1975	44.93	11.77	56.70	161.2	175.4	137.3	142.3	170.8	152.2	
1976	47.44	12.03	59.47	170.5	180.8	144.7	147.6	100.0	159.8	
1977	49.83	12.37	62.20	181.5	192.2	153.5	154.2	106.9	167.7	
1978	49.98	12.62	62.60	195.4	211.4	164.0	159.6	111.8	176.6	
1979	72.24	13.46	85.70	217.4	234.5	176.0	166.6	150.4	188.5	
1980	107.35	14.37	119.10	246.8	254.6	191.6	178.4	210.0	205.3	
1981	122.33 ^e	12.97 ^e	131.10	272.4	274.6	208.2	186.9	234.4	221.4	
1982	108.11 ^e	14.09 ^e	122.20	289.1	285.7	224.0	191.8	224.9	235.8	
1983	95.50 ^e	20.23 ^e	115.73	298.4	291.7	236.9	196.5	217.8	246.0	
1984	n/a	n/a	112.90	311.1	302.9	249.3	200.2	216.3	255.1	
1985	n/a	n/a	111.50	322.2	309.8	264.6	206.0	215.1	265.0	
1986	n/a	n/a	83.00	328.4	319.7	280.0	207.8	237.9	274.1	

n/a = not available.

^e = estimated by Transportation Policy Associates.

* Includes reading materials, sporting goods, toys and hobbies, and entertainment services.

Note: In 1976, regular and premium gasoline reverted to an index of 100.

Source: Price of Regular Grade Gasoline:

1955-1980: American Petroleum Institute, *Basic Petroleum Data Book*, Section VI, Table 4/4a.

1981-1986: U.S. DOL: Bureau of Labor Statistics, personal communication (December 31 figures).

Price Indexes of Gasoline/Consumer Items: 1955-1986: U.S. DOL: Bureau of Labor Statistics, *Consumer Price Index, All Urban Consumers*, U.S. City Averages.

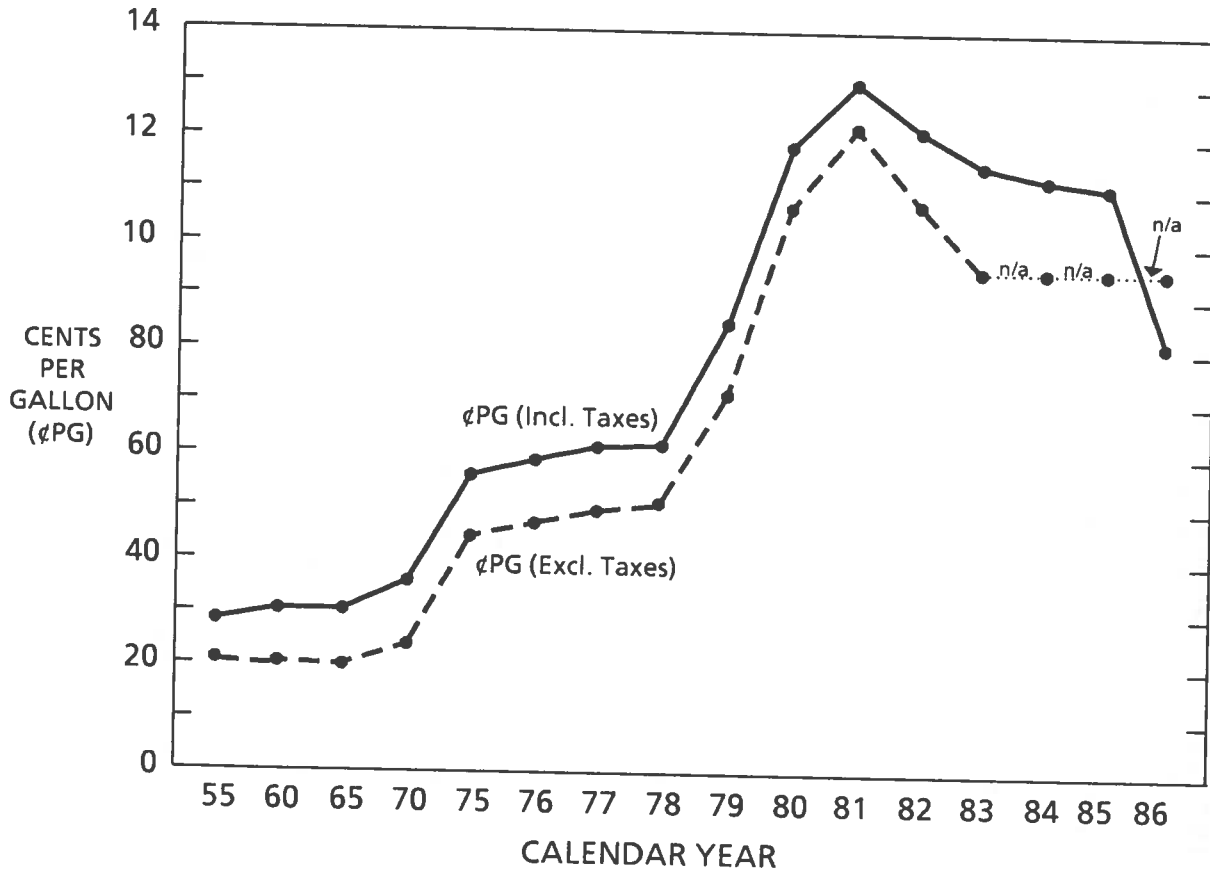


Figure 24. Price Trend of Regular Grade Gasoline Prices, 1955-1986

n/a = not available.

Source: See Appendix A, p. A-12.

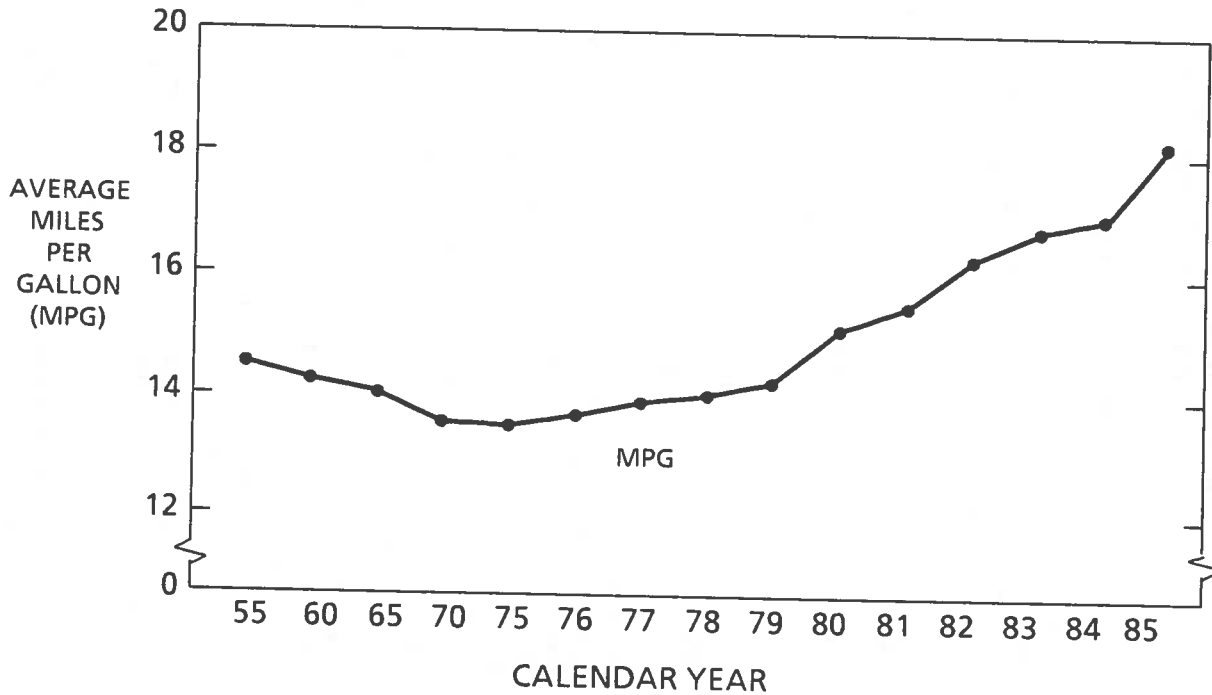


Figure 25. Average Fuel Efficiency of U.S. Passenger Cars, 1955-1985

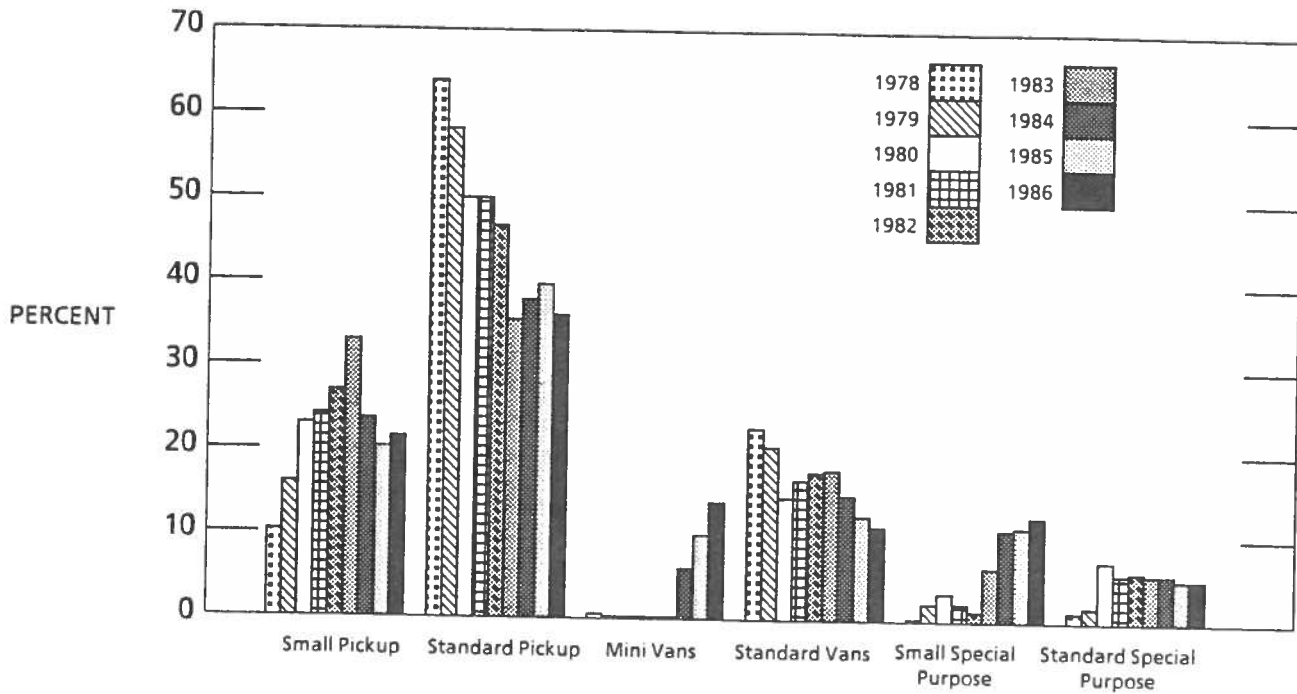
Source: See Appendix A, p. A-12.

Table 46. Model Year Sales, Market Shares, and Sales-Weighted Fuel Economies of Domestic and Import Trucks, Model Years 1978-1986^a

	1978	1979	1980	1981	1982	1983	1984	1985	1986
SMALL PICKUP									
Total sales, units	308,790	451,548	516,412	472,611	579,263	894,432	857,804	863,584	981,857
Market share, %	10.5	16.1	23.3	24.4	27.2	33.3	23.7	20.4	21.7
Fuel economy, mpg	26.9	23.6	25.5	28.1	28.1	27.2	27.0	26.8	25.4
STANDARD PICKUP									
Total sales, units	1,886,782	1,635,745	1,115,248	967,242	1,000,772	958,408	1,375,948	1,690,931	1,593,512
Market share, %	64.2	58.4	50.3	50.0	46.9	35.7	38.1	39.9	35.1
Fuel economy, mpg	16.6	15.8	17.0	18.5	18.6	18.3	18.3	19.0	19.3
MINI VAN									
Total sales, units	19,476	18,153	13,649	11,007	11,964	13,716	222,798	437,660	640,936
Market share, %	0.7	0.6	0.6	0.6	0.6	0.5	6.2	10.3	14.1
Fuel economy, mpg	19.5	17.9	19.6	18.8	22.5	21.0	25.0	24.3	23.8
STANDARD VAN									
Total sales, units	670,453	580,883	328,065	327,730	379,110	484,349	545,595	536,242	510,558
Market share, %	22.8	20.7	14.8	16.9	17.8	18.0	15.1	12.7	11.3
Fuel economy, mpg	16.4	14.9	16.3	17.4	17.0	17.2	16.3	16.4	17.3
SMALL SPECIAL PURPOSE									
Total sales, units	11,588	61,796	79,776	42,813	31,226	174,982	399,611	477,706	568,322
Market share, %	0.4	2.2	3.6	2.2	1.5	6.5	11.1	11.3	12.5
Fuel economy, mpg	15.7	17.0	16.7	19.5	20.0	22.6	22.8	22.1	21.3
STANDARD SPECIAL PURPOSE									
Total sales, units	40,091	53,038	163,387	114,013	130,505	161,412	211,178	229,242	239,508
Market share, %	1.5	1.9	7.4	5.9	6.1	6.0	5.8	5.4	5.3
Fuel economy, mpg	15.3	15.2	14.6	16.1	17.0	16.9	15.7	16.6	16.1
FLEET									
Total sales, units	2,941,180	2,801,163	2,216,537	1,935,416	2,132,840	2,687,299	3,612,934	4,235,365	4,534,693
Market share, %	100.0	100.0	10.0	100.0	100.0	100.0	100.0	100.0	100.0
Fuel economy, mpg	17.2	16.5	18.1	19.8	20.0	20.5	20.1	20.4	20.7

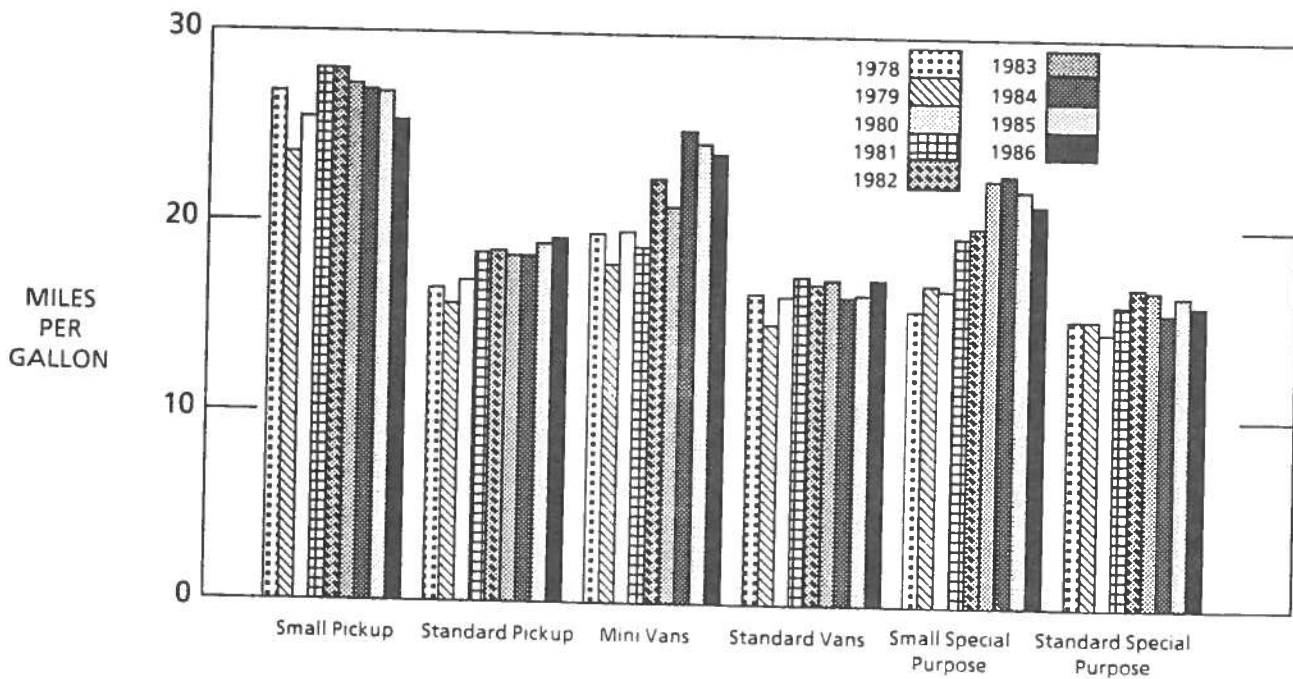
^a These figures represent only those sales that could be matched to corresponding EPA fuel economy values. Source: Oak Ridge National Laboratory, *Motor Vehicle MPG and Market Shares Report*, 1986, Table 20.

Figure 28. Market Shares of Domestic and Import Light Trucks by EPA Size Classification, 1978-1986



Source: Oak Ridge National Laboratory, *Motor Vehicle MPG and Market Shares Report*, 1986, p. 61.

Figure 29. Fuel Economies of Domestic and Import Light Trucks by EPA Size Classification, 1978-1986



Source: Oak Ridge National Laboratory, *Motor Vehicle MPG and Market Shares Report*, 1986, p. 62

Part 2. Energy Intensiveness

Table 48. Energy Intensiveness of General Aviation, 1975-1985

Fuel Consumption (million gal.)				
Year	Intercity Passenger-Miles (10 ⁶)	AVGAS	Jet Fuel	Btu/Passenger Miles
1975	11,400	412	453	9,709
1976	12,100	432	495	9,814
1977	12,800	456	536	9,935
1978	14,100	518	763	11,723
1979	15,500	570	736	10,830
1980	14,700	520	766	11,286
1981	14,600	489	759	11,044
1982	13,100	448	887	13,252
1983	12,700	428	613	10,566
1984	13,000 ^r	462	739	12,423
1985	13,000	421	691	11,068

Note: The heat equivalent factors used in Btu conversion are:

AVGAS = 5,048,000 Btu/bbl.

Jet Fuel (kerosene) = 5,670,000 Btu/bbl.

Source: Passenger-Miles Flown:

1974-1984: TPA, *Transportation In America*, March, 1987, p. 8.

Fuel Consumed:

1974-1979: U.S. DOT/FAA, personal communication.

1980-1985: *Ibid.*, Office of Management Systems, *General Aviation Activity and Avionics Survey*, 1980-1987 editions, Tables 2-21 and similar table in earlier editions.

Table 50. Energy Intensiveness of Trucks, 1975-1985

Year	<u>Vehicle Miles (millions)</u>		<u>Fuel Consumed (thousand gal.)</u>		<u>Btu/Vehicle-Mile</u>	
	Single-Unit Trucks	All Trucks	Single-Unit Trucks	All Trucks	Single-Unit Trucks	All Trucks
1975	235,306	282,030	22,717	31,371	12,068	15,428
1976	262,224	311,904	25,304	34,840	12,062	15,146
1977	289,930	345,612	27,454	38,127	11,836	15,301
1978	322,158	385,153	30,162	42,274	11,703	15,224
1979	333,917	400,909	30,778	43,642	11,522	15,099
1980	330,748	399,426	29,151	41,854	11,017	14,534
1981	335,911	405,045	29,271	42,231	10,892	14,461
1982	346,353	413,021	29,505	42,141	10,648	14,152
1983	371,052	440,806	31,674	45,121	10,670	14,197
1984	404,559	481,926	34,269	49,050	10,596	14,117
1985	420,052	499,652	35,756	51,036	10,640	14,167

r = revised.

Note: The heat equivalent factors used for Btu conversions are:

Automotive gasoline = 125,000 Btu/gal (single-unit trucks)

Distillate fuel = 138,700 Btu/gal (combinations)

Source: U.S. DOT/FHWA, *Highway Statistics, Summary to 1985*, Table VM-201A.

Table 52. Energy Intensiveness of Class I Intercity Buses, 1975-1985

Year	Revenue Passenger-Miles (10 ⁶)	Fuel Consumed (million gal.)	Btu/ Passenger-Mile
1975	18,200	135.1	1,030
1976	16,440	134.8	1,049
1977	17,100	126.4	1,025
1978	16,230	121.9	1,042
1979	17,330	127.4	1,020
1980	17,080	132.2	1,074
1981	15,730 ^r	123.0	1,085 ^r
1982	16,070 ^r	123.1	1,062 ^r
1983	14,100 ^r	103.4	1,017 ^r
1984	13,420 ^r	109.6	1,133 ^r
1985	12,540	106.3	1,176

r = revised.

Note: The heat equivalent factor used in Btu conversion is 138,700 Btu/gal.

Source: Revenue Passenger-Miles:

1975 - 1980: ABA, *Bus Facts*, 1982, p.5.

1981 - 1982: ABA, personal communication.

1983 - 1985: TPA, personal communication.

Fuel Consumed:

1975 - 1982: ABA, personal communication.

1983 - 1985: TPA, personal communication.

Table 53. Energy Intensiveness of Class I Railroad Freight, 1975-1985

Year	Revenue Freight Ton-Miles (millions)	Fuel Consumed* (million gal.)	Btu/ Revenue Freight Ton-Mile
1975	754,252	3,314	609
1976	794,059	3,460	605
1977	826,292	3,537	594
1978	858,105	3,508	567
1979	913,669	3,637	559
1980	918,621	3,567	538
1981	910,169	3,429	523
1982	797,759	2,872	499
1983	828,275	2,872	481
1984	921,542	3,104	467
1985	876,984	2,878	455

* Diesel fuel only. Does not include electrically powered locomotives.

Note: The heat equivalent factor used for Btu conversion is 138,700 Btu/gal.

Source: Revenue Freight Ton-Miles:

1975-1985: *Railroad Ten-Year Trends*, 1986, Table III-D-3.

Fuel Consumed:

1975-1985: *Railroad Ten-Year Trends*, 1986, Table III-D-2.

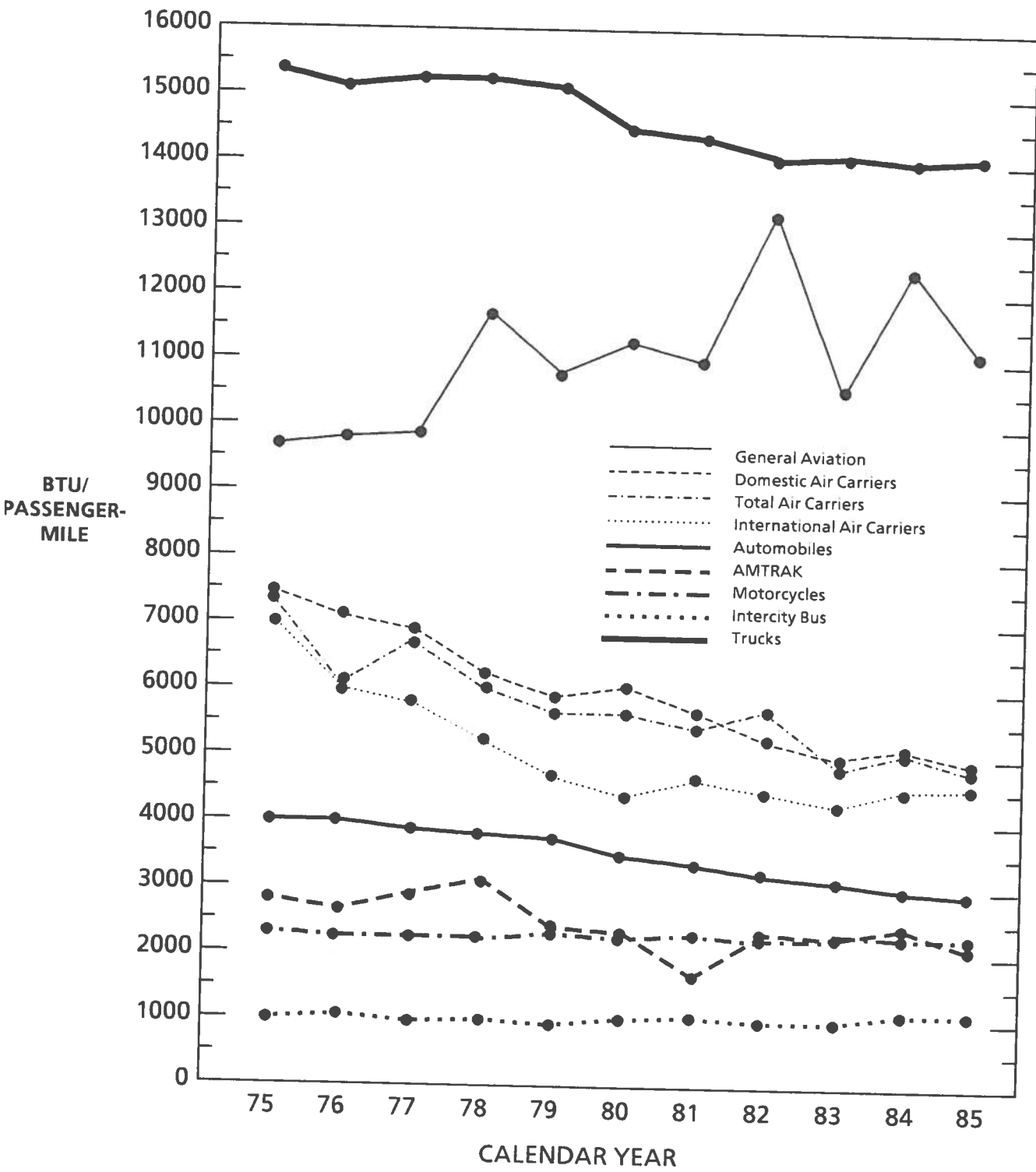
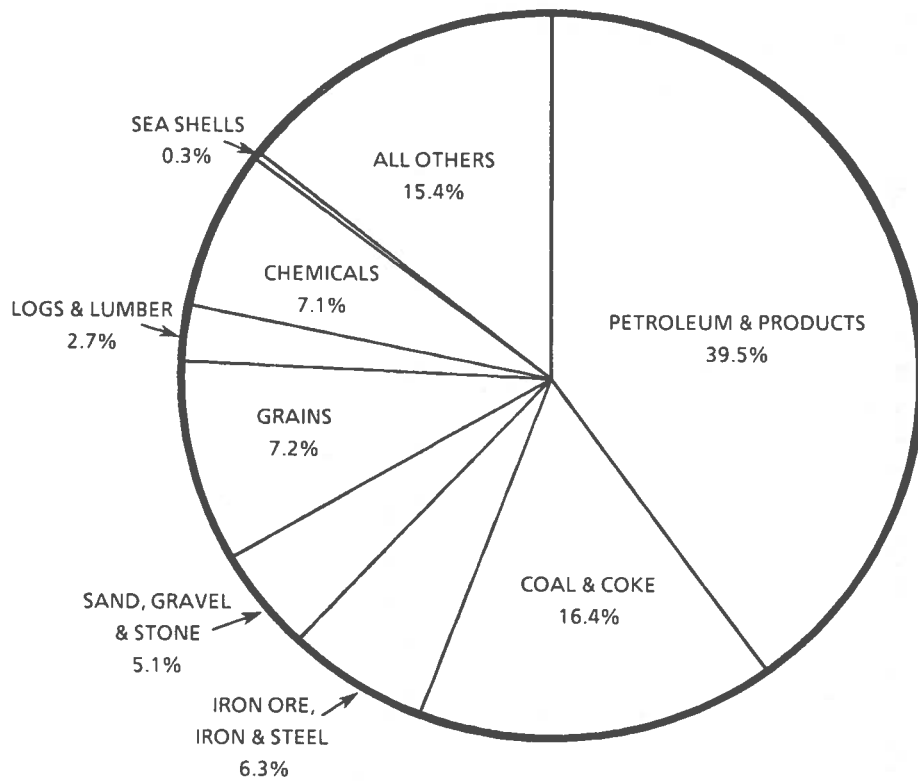


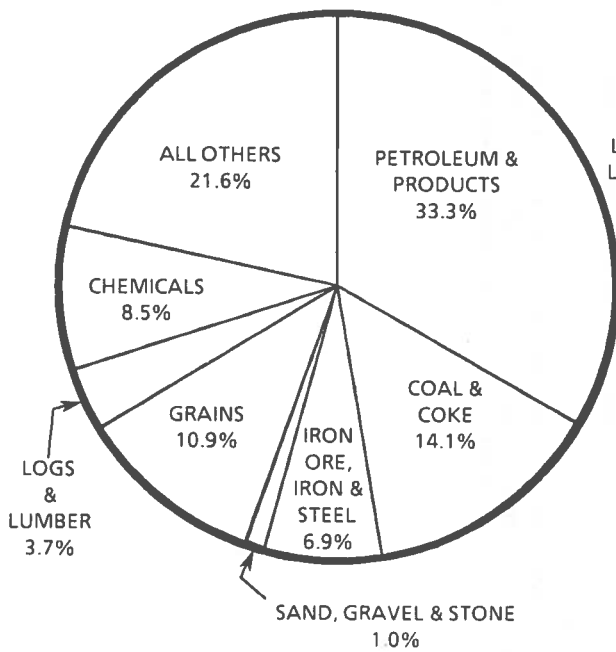
Figure 30. Energy Intensiveness by Passenger Mode, 1975-1985

Part 3. Energy Transport

TOTAL COMMERCE



FOREIGN COMMERCE



DOMESTIC COMMERCE

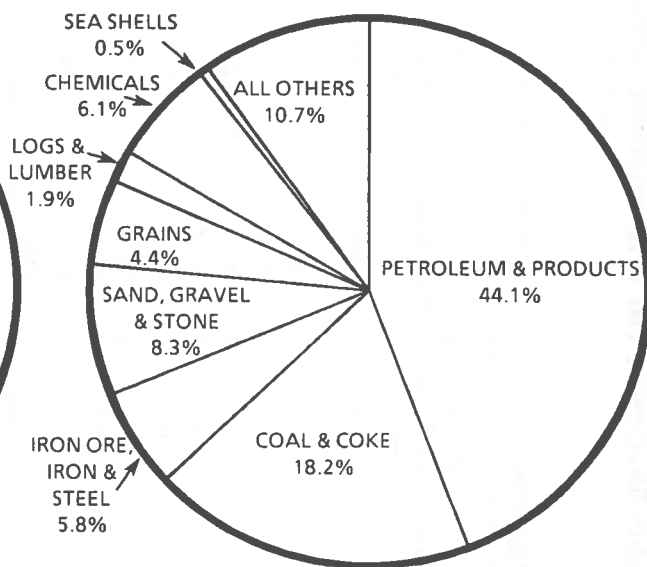


Figure 31. Principal Commodities Carried by Water, 1985

Source: See Appendix A, p. A-12.

Table 57. Refined Petroleum Products Transported in the U.S., 1975-1985
(billions of ton-miles)

Year	Pipelines ¹		Water Carriers		Motor Carriers ^e		Railroads		Total Ton-Miles
	Ton-Miles	Percent of Total	Ton-Miles	Percent of Total	Ton-Miles	Percent of Total	Ton-Miles	Percent of Total	
1975	219.0	42.5	257.4	50.0	26.2	5.1	12.6	2.4	515.2
1976	212.0	40.5	269.1	51.4	30.4	5.8	12.4	2.3	523.9
1977	219.4	41.3	270.2	50.9	27.6	5.2	13.7	2.6	530.9
1978	226.3	42.2	269.3	50.2	28.6	5.3	12.5	2.3	536.7
1979	236.1	44.2	257.4	48.2	27.8	5.2	12.9	2.4	534.2
1980	225.6	45.8	230.4	46.8	24.3	5.0	12.0	2.4	492.3
1981	230.6	48.3	212.3	44.4	22.7	4.8	12.1	2.5	477.7
1982	230.6	51.5	184.2	41.1	20.7	4.6	12.5	2.8	448.0
1983	223.7	53.6	159.3	38.2	23.1	5.5	11.3	2.7	417.4
1984	235.1	54.4	158.1	36.6	27.0	6.3	11.6	2.7	431.8
1985	229.9	56.2	141.2	34.5	26.9	6.6	11.3	2.7	409.3

^e = estimate.

¹ The amounts carried by pipeline are based on ton-miles of crude and petroleum products for Federally regulated pipelines (84 percent) plus an estimated breakdown of crude and petroleum products for the ton-miles for pipelines not Federally regulated (16 percent).

Source: Association of Oil Pipelines, *Shifts in Petroleum Transportation*, 1987, Table 3.

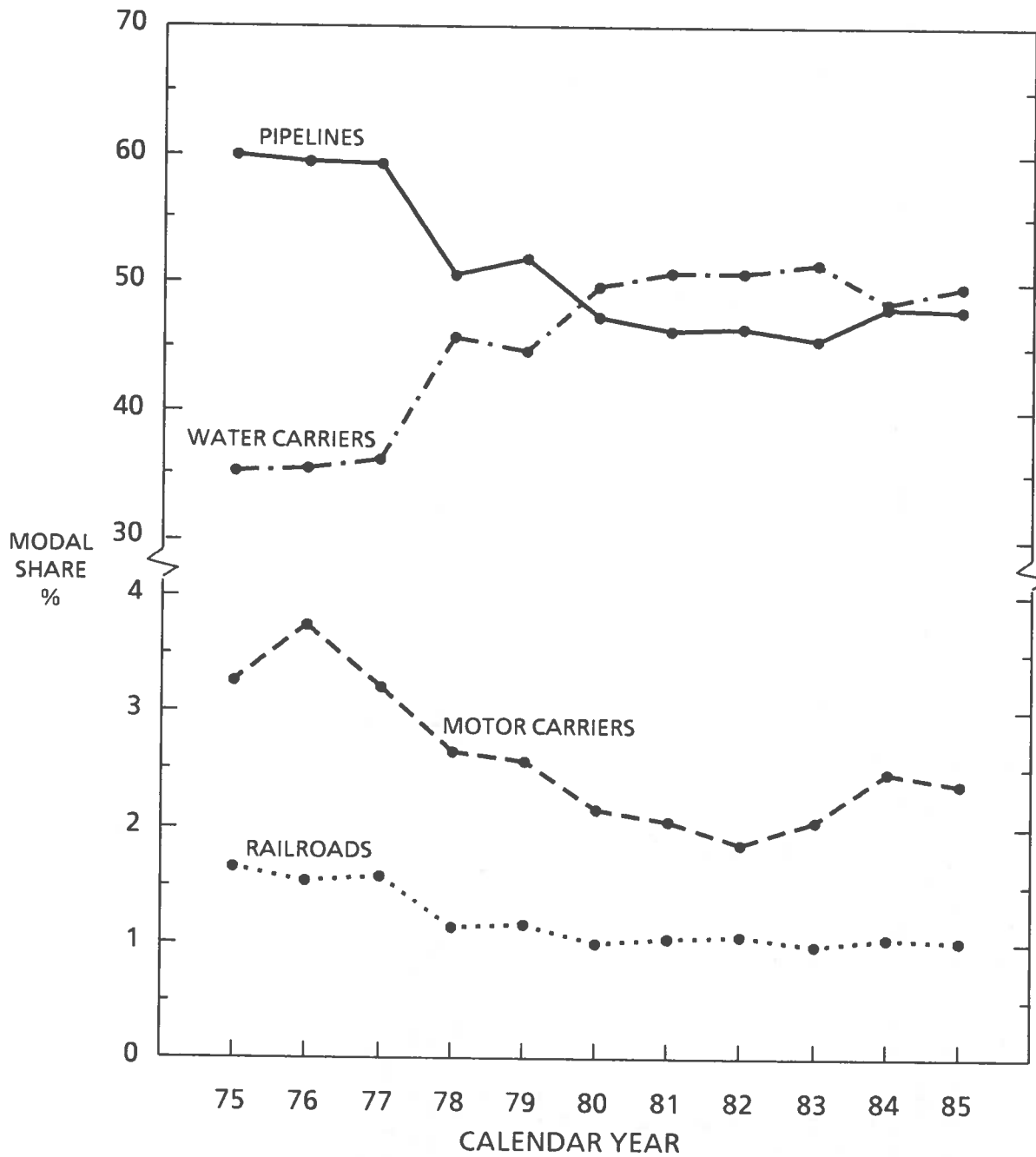


Figure 32. Crude Petroleum and Petroleum Products Transported in the U.S. by Modal Share, 1975-1985

Table 60. U.S. Petroleum Pipeline Mileage, 1970-1985

Year ¹	Crude-Oil Trunk Lines		Refined-Oil Trunk Lines		Total Trunk Lines		Crude-Oil Gathering Lines		Total Petroleum Pipelines	
	FERC* Lines	All Lines ²	FERC* Lines	All Lines ²	FERC* Lines	All Lines ²	FERC* Lines	All Lines ²	FERC* Lines	All Lines
1970	63,030	75,143	59,335	72,396	122,365	147,539	46,587	71,132	175,735 ³	218,671
1971	60,946	75,512	61,525	74,277	122,471	149,789	45,759	70,110	174,722 ³	219,899
1972	59,757	75,881	64,701	76,158	124,458	152,039	42,893	69,088	173,532 ³	221,127
1973	57,435	76,250	64,919 ⁴	78,038	122,354 ⁴	154,288	41,655	69,247	170,691 ³	223,535
1974	57,602	76,824	68,609 ⁴	79,124	126,211 ⁴	155,948	41,577	68,764	173,341 ³	224,712
1975	54,658	77,398	66,620 ⁴	80,210	121,278 ⁴	157,608	42,582	68,281	172,680 ³	225,889
1976	58,544	77,972	67,913 ⁴	81,296	126,457 ⁴	159,268	39,235	67,798	174,072	227,066
1977	59,739	78,483	60,099	74,995	119,838	153,478	34,703	66,580	154,541	220,058
1978	59,981	75,483	65,114	77,314	125,095	152,797	36,539	65,368	161,634	218,165
1979	58,606	71,876	74,261	85,905	132,867	157,781	36,927	58,179	169,794	215,960
1980	59,560	71,568	74,510	88,562	134,070	160,130	35,279	58,263	169,349	218,393
1981	57,904	68,486	76,353	89,456	134,257	157,942	38,558	57,099	172,815	215,041
1982	59,567	69,529	77,402	90,727	131,969	160,256	35,580	53,421	172,549	213,677
1983	57,466	67,077	79,387	93,054	136,853	160,131	30,966	47,688	167,819	207,819
1984	56,975	66,540	80,875	94,822	137,850	161,362	36,072	47,288	173,922	208,650
1985	55,844	65,209	80,536	94,443	136,380	159,652	35,021	46,077	171,401	205,729

* Data is for Federal Energy Regulatory Commission lines, prior to 1976, they were regulated by the ICC.

¹ As of December 31.

² Triennial Data.

³ Total mileage includes pipelines classified as "other than owned" by the ICC. In 1967 "other than owned" pipeline mileage was 6,255 miles.

⁴ Includes 273 miles of coal slurry pipeline.

Source: FERC Lines:

1970-1976: Interstate Commerce Commission, *Transport Statistics in the United States, 1976*, Table 2 and equivalent tables in earlier editions.

1977-1981: Penn Well Publishing Co., *Oil and Gas Journal, 1979-1982*.

1982: Federal Energy Regulatory Commission, personal communication.

1983-1985: Penn Well Publishing Co., *Oil and Gas Journal, 1986*.

1970-1976: U.S. DOE, *Energy Data Reports, Crude Oil and Product Pipelines, Triennial, 1977, Table 1*.

1977-1985: Estimated by TPA based on annual trends for FERC - regulated oil pipelines, as reported in *Oil and Gas Journal*, annual issues.

1970-1985: TPA, *Transportation in America, 1987*, p. 21.

Total Petroleum (All Lines):

Table 62. World Tanker Fleet By Size, 1975-1986
(million d.w.t.)

Size	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
10 - 25,000 d.w.t.	19.7	17.5	16.1	14.8	14.2	14.1	13.8	13.5	13.0	12.8	12.3	12.4
25 - 45,000 d.w.t.	28.8	27.3	26.6	24.6	24.2	24.6	26.0	27.2	27.4	26.3	25.8	26.3
45 - 65,000 d.w.t.	21.9	19.9	18.2	16.1	15.3	16.1	16.6	16.1	15.3	15.7	15.0	14.2
65 - 125,000 d.w.t.	51.2	54.4	54.2	50.8	51.2	52.5	55.4	51.8	48.4	46.2	44.4	46.6
125 - 205,000 d.w.t.	23.6	28.7	32.3	33.3	33.4	33.0	31.2	30.2	28.8	28.9	28.4	27.5
200 - 320,000 d.w.t.	130.1	144.8	156.6	157.4	157.7	155.4	146.5	134.5	120.4	111.6	94.9	90.6
320,000 d.w.t. and over	16.1	28.1	28.5	31.5	31.9	29.1	30.7	30.4	29.9	28.2	26.0	23.4
Total	291.4	320.7	332.5	328.5	327.9	324.8	320.2	303.7	283.2	269.7	246.8	241.0

d.w.t. = deadweight tons.

Source: British Petroleum Co., *BP Statistical Review of World Energy*, 1987, p. 20.

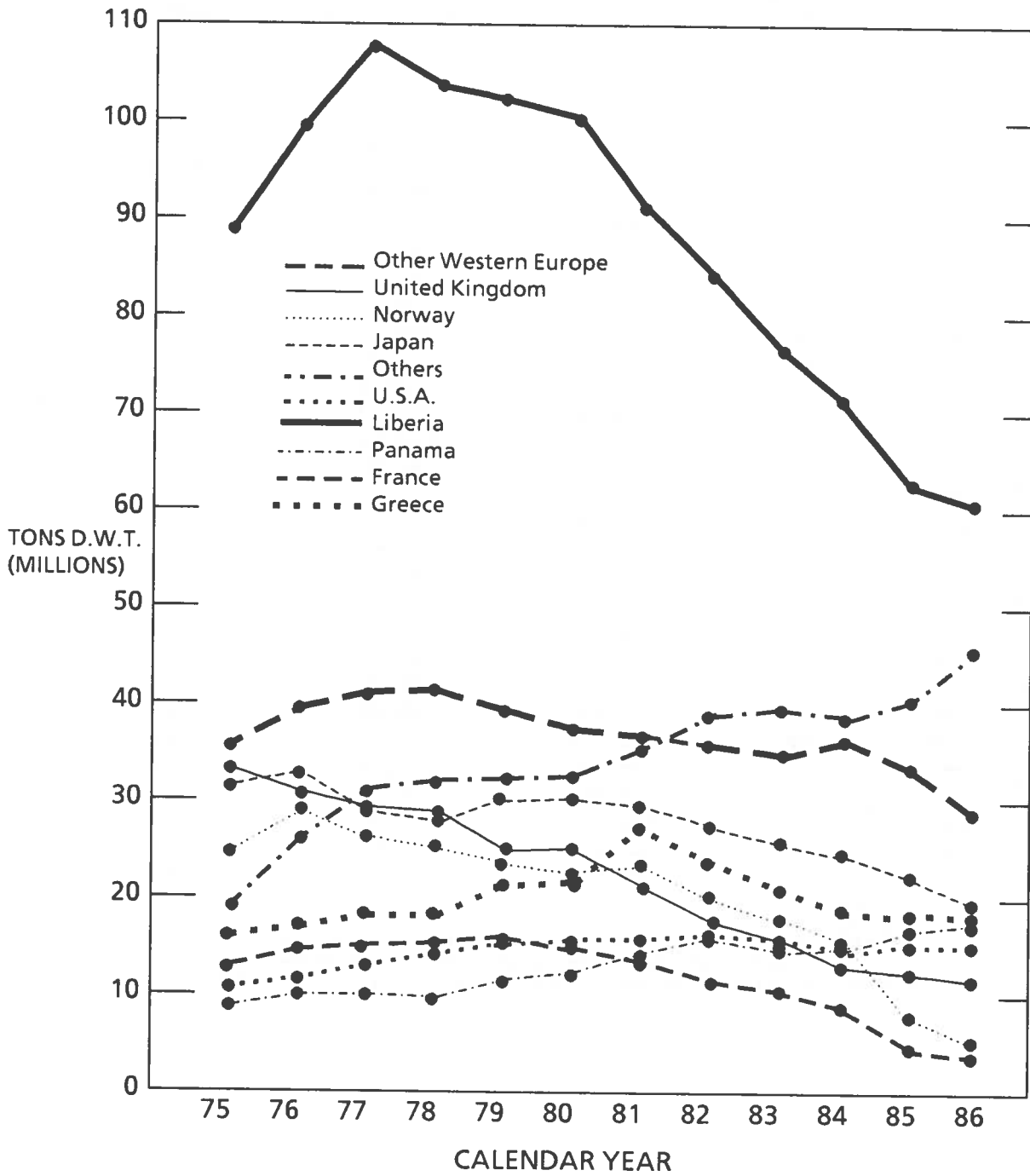


Figure 33. World Tanker Fleet by Flag, 1975 - 1986

Part 4. Energy Supply and Demand

**Table 66. Domestic Demand for Refined Petroleum
Products Supplied to End-Use Sectors
(at 5-Year Intervals 1955-1965 and Annually 1966-1986)
(trillion Btu's per day)¹**

Year	Residential and Commercial	Industrial	Transportation	Transportation as % of Total	Electric Utilities	Total
1955	7.85	14.02	24.12	51.0	1.31	47.30
1960	9.53	15.72	27.69	50.9	1.50	54.44
1965	10.57	18.61	32.49	51.0	2.01	63.67
1966	10.71	19.50	34.23	51.2	2.44	66.83
1967	11.06	19.59	35.87	51.8	2.76	69.27
1968	11.45	20.24	38.76	52.6	3.26	73.70
1969	11.66	21.15	40.53	52.2	4.32	77.66
1970	11.78	21.38	41.60	51.6	5.81	80.89
1971	11.75	21.59	43.57	52.0	6.81	83.72
1972	12.08	23.35	46.08	51.2	8.48	90.03
1973	12.01	24.99	48.84	51.2	9.62	95.46
1974	10.97	23.81	47.68	52.0	9.23	91.64
1975	10.45	22.33	48.26	53.8	8.69	89.70
1976	11.41	24.64	50.56	52.6	9.50	96.10
1977	11.53	26.82	52.67	51.8	10.69	101.70
1978	11.42	27.06	54.83	52.6	10.94	104.03
1979	9.46	28.98	54.30	53.4	9.01	101.69
1980	8.31	26.02	51.95	55.6	7.19	93.47
1981	7.19	22.73	51.51	58.9	6.01	87.49
1982	6.69	21.36	50.43	60.9	4.32	82.85
1983	6.97 ^r	20.35	49.67	61.3	4.25	82.33
1984	7.05	21.55	52.71	62.2	3.50	84.72
1985 ^r	7.02	21.11	53.56	63.2	3.00	84.74
1986 ^e	7.06	21.08	55.20	63.2	4.00	87.35

^r = revised.

^e = estimate.

¹ Data derived by multiplying figures in Table 72 by conversion factors in each end-user sector column on page 263 in U.S. DOE's *Annual Energy Review 1986*.

**Table 68. Petroleum Supply and Disposition
(At 5-Year Intervals 1955-1965 and Annually 1966-1986)
(million barrels per day)**

Year	Production				Supply				Disposition				
	Crude Oil ¹	Natural Gas Plant Liquids	Total Production	Crude Oil ²	Imports		Change in Stocks ⁴	Other		Exports	Crude Oil Losses	Refined Petroleum Products Supplied	Total Disposition
					Petroleum Products ³	Total Imports		Other Supply ⁵	Total Supply				
1955	6.81	0.77	7.58	0.78	0.47	1.25	*	0.04	8.86	0.37	0.04	8.46	8.86
1960	7.04	0.93	7.96	1.02	0.80	1.81	0.08	0.15	10.01	0.20	0.01	9.80	10.01
1965	7.80	1.21	9.01	1.24	1.23	2.47	0.01	0.22	11.71	0.19	0.01	11.51	11.71
1966	8.30	1.28	9.58	1.22	1.35	2.57	-0.10	0.25	12.29	0.20	0.01	12.08	12.29
1967	8.81	1.41	10.22	1.13	1.41	2.54	-0.17	0.29	12.88	0.31	0.01	12.56	12.88
1968	9.10	1.50	10.60	1.29	1.55	2.84	-0.15	0.35	13.64	0.23	0.01	13.39	13.64
1969	9.24	1.59	10.83	1.41	1.76	3.17	0.05	0.34	14.38	0.23	0.01	14.14	14.38
1970	9.64	1.66	11.30	1.32	2.10	3.42	-0.10	0.35	14.97	0.26	0.01	14.70	14.97
1971	9.46	1.69	11.16	1.68	2.25	3.93	-0.07	0.44	15.45	0.22	0.01	15.21	15.45
1972	9.44	1.74	11.18	2.22	2.53	4.74	0.23	0.44	16.60	0.22	0.01	16.37	16.60
1973	9.21	1.74	10.95	3.24	3.01	6.26	-0.14	0.49	17.55	0.23	0.01	17.31	17.55
1974	8.77	1.69	10.46	3.48	2.64	6.11	-0.18	0.49	16.89	0.22	0.01	16.65	16.89
1975	8.37	1.63	10.01	4.10	1.95	6.06	-0.03	0.51	16.54	0.21	0.01	16.32	16.54
1976	8.13	1.60	9.74	5.29	2.03	7.31	0.06	0.59	17.70	0.22	0.01	17.46	17.70
1977	8.24	1.62	9.86	6.61	2.19	8.81	-0.55	0.57	18.69	0.24	0.02	18.43	18.69
1978	8.71	1.57	10.27	6.36	2.01	8.36	0.09	0.49	19.22	0.36	0.02	18.85	19.22
1979	8.55	1.58	10.14	6.52	1.94	8.46	-0.15	0.56	19.00	0.47	0.02	18.51	19.00
1980	8.60	1.57	10.17	5.26	1.65	6.91	-0.14	0.68	17.61	0.54	0.01	17.06	17.61
1981	8.57	1.61	10.18	4.40	1.60	6.00	-0.16	0.64	16.66	0.59	*	16.06	16.66
1982	8.65	1.55	10.20	3.49	1.63	5.11	0.15	0.65	16.11	0.82	*	15.30	16.11
1983	8.69	1.56	10.25	3.33	1.72	5.05	0.02	0.65	15.97	0.74	*	15.23	15.97
1984	8.88	1.63	10.51	3.43	2.01	5.44	-0.28	0.78	16.45	0.72	*	15.73	16.45
1985 ^r	8.97	1.61	10.58	3.20	1.87	5.07	0.10	0.76	16.51	0.78	*	15.73	16.51
1986 ^p	8.67	1.57	10.24	4.11	1.95	6.06	-0.21	0.83	16.92	0.78	*	16.14	16.92

^r = revised.

^p = preliminary.

* Less than 5,000 barrels per day.

Note: Sum of components may not equal total due to independent rounding.

¹ Includes lease condensate.

² Includes imports for the Strategic Petroleum Reserve which began in 1977.

³ For 1981 and forward, includes motor gasoline blending components, and aviation gasoline blending components.

⁴ Negative numbers denote a net addition to stocks or a reduction in supply. Positive numbers denote a net withdrawal from stocks or an addition to supply.

⁵ Includes benzol, other hydrocarbons, hydrogen, alcohol, processing gains and unaccounted for crude oil.

Source: U.S. DOE/EIA, *Annual Energy Review 1986*, Table 45.

**Table 70. Domestic Demand for Gasoline
(at 5-Year Intervals 1955-1970 and Annually 1971-1985)
(thousands of gallons)**

Year	Total Demand	Highway	NonHighway				Total
			Agriculture	Aviation	Marine	Other ¹	
1955	52,566,255	47,731,734	2,156,434	999,440	25,885	1,652,762	4,834,521
1960	63,221,243	57,879,908	2,291,666	1,323,769	60,633	1,656,267	5,332,335
1965	75,312,613	71,104,430	1,963,432	501,339	96,336	1,647,076	4,208,183
1970	96,331,909	92,329,056	1,931,966	393,012	598,159	1,079,713	4,002,850
1971	101,471,956	97,558,586	1,864,708	359,549	645,428	1,043,865	3,913,370
1972	108,886,206	105,062,178	1,698,185	355,178	686,763	1,083,902	3,824,028
1973	114,368,632	110,472,881	1,749,776	395,018	716,990	1,033,967	3,895,751
1974	109,923,280	106,300,765	1,605,809	394,806	696,906	924,994	3,622,515
1975	112,626,656	108,984,347	1,564,882	409,713	729,718	937,996	3,642,309
1976	119,478,018	115,700,146	1,472,272	529,238	763,803	1,012,559	3,777,872
1977	123,350,479	119,625,280	1,360,220	552,615	774,066	1,038,298	3,725,199
1978	115,816,431	112,239,066	1,228,772	457,372	811,850	1,079,371	3,577,365
1979	111,771,026	108,125,994	1,152,097	502,977	780,171	1,209,787	3,645,032
1980	104,837,657	101,183,014	1,059,044	412,883	1,052,185	1,130,531	3,654,643
1981	103,111,410	99,596,671	962,149	376,708	1,092,982	1,082,900	3,514,739
1982	101,738,767	98,478,881	912,062	372,637	1,061,931	913,256	3,259,886
1983	103,180,290	99,964,516	735,919	407,110	1,069,072	1,003,673	3,215,774
1984	105,300,798	101,415,509	1,152,912	382,976	1,325,012	1,024,389	3,885,289
1985	107,612,794	103,607,851	1,080,677	381,515	1,052,998	1,489,753	4,004,943

¹ Other includes state, county, and municipal use, industrial, commercial, construction, miscellaneous and unclassified users.

Source: 1955-1975: U.S. DOT/FHWA, *Highway Statistics*, annual issues, Tables MF-24 and MF-26.

1976: *Ibid.*, 1976, Table MF-21; Table MF-24, unpublished.

1977-1985: *Ibid.*, annual issues, Tables MF-21A and MF-24.

**Table 72. Domestic Supply and Demand for Kerosene-Type Jet Fuel,
1965-1986
(daily averages in thousands of barrels)**

Year	Supply			Stocks as of Dec. 31 (barrels x 10 ³)	Demand			
	Production	Imports	New Supply		Change in Stocks	Total Demand	Exports	Domestic Demand
1965	298	37	335	10,361	*	335	1	334
1966	345	52	397	13,139	5	392	1	391
1967	448	74	522	13,174	3	519	1	518
1968	529	86	615	15,373	6	609	*	609
1969	594	111	705	19,517	11	694	*	694
1970	597	125	722	20,989	4	718	*	718
1971	601	150	751	20,747	1	752	1	751
1972	638	162	800	19,346	3	803	*	803
1973	679	176	855	22,945	10	845	3	842
1974	641	135	776	23,906	3	773	2	771
1975	691	105	796	25,158	3	793	2	791
1976	731	61	792	25,590	1	791	2	789
1977	787	53	840	28,263	7	833	2	831
1978	791	67	858	27,707	2	859	1	858
1979	835	56	891	32,921	14	877	1	876
1980	811	50	861	35,723	8	853	1	852
1981	775	31	806	34,011	-5	810	1	809
1982	777	22	799	31,176	8	801	5	796
1983	817	26	843	32,368	-1	837	5	832
1984	919	44	963	35,118	-8	956	7	949
1985	962	28	990	33,494	4	994	12	982
1986	1,095	45	1,140	42,677	-25	1,115	16	1,099

* Less than 1,000 barrels.

Source: 1965-1975: American Petroleum Institute, *Basic Petroleum Data Book*, Section VII, Table 15.
1976-1980: U.S. DOE, *Petroleum Supply Monthly*, December issues 1977-1980, Table 2 (converted to daily averages using column 6).
1981-1982: *Ibid.*, December 1981, Tables 2a and 3a; December 1982, Tables 3 and 5.
1983-1986: *Ibid.*, December issues, pp. 25, 27.

**Table 74. Natural Gas Production
(at 5-Year Intervals 1955-1965 and Annually 1966-1986)
(trillion cubic feet)**

Year	Gross Withdrawals			Reservoir Repressuring	Non- hydrocarbon Gases Removed	Vented and Flared	Marketed Production	Extraction Loss ¹	Dry Natural Gas Production
	From Gas Wells	From Oil Wells	Total						
1955	7.84	3.88	11.72	1.54	n/a	0.77	9.41	0.38	9.03
1960	10.85	4.23	15.09	1.75	n/a	0.56	12.77	0.54	12.23
1965 ²	13.52	4.44	17.96	1.60	n/a	0.32	16.04	0.75	15.29
1966	13.89	5.14	19.03	1.45	n/a	0.38	17.21	0.74	16.47
1967	15.35	4.91	20.25	1.59	n/a	0.49	18.17	0.78	17.39
1968	16.54	4.79	21.32	1.49	n/a	0.52	19.32	0.83	18.49
1969	17.49	5.19	22.68	1.46	n/a	0.53	20.70	0.87	19.83
1970	18.59	5.19	23.79	1.38	n/a	0.49	21.92	0.91	21.01
1971	18.93	5.16	24.09	1.31	n/a	0.28	22.49	0.88	21.61
1972	19.04	4.97	24.02	1.24	n/a	0.25	22.53	0.91	21.62
1973	19.37	4.70	24.07	1.17	n/a	0.25	22.65	0.92	21.73
1974	18.67	4.18	22.85	1.08	n/a	0.17	21.60	0.89	20.71
1975	17.38	3.72	21.10	0.86	n/a	0.13	20.11	0.87	19.24
1976	17.19	3.75	20.94	0.86	n/a	0.13	19.95	0.85	19.10
1977	17.42	3.68	21.10	0.93	n/a	0.14	20.03	0.86	19.16
1978	17.39	3.91	21.31	1.18	n/a	0.15	19.97	0.85	19.12
1979	18.03	3.85	21.88	1.25	n/a	0.17	20.47	0.81	19.66
1980	17.57	4.30	21.87	1.37	0.20	0.13	20.18	0.78	19.40
1981	17.34	4.25	21.59	1.31	0.22	0.10	19.96	0.77	19.18
1982	15.80	4.41	20.21	1.39	0.21	0.09	18.52	0.76	17.76
1983	14.15	4.45	18.60	1.46	0.22	0.09	16.82	0.79	16.03
1984	15.51	4.69	20.19	1.63	0.22	0.11	18.23	0.84	17.39
1985 ^r	14.53	5.01	19.53	1.92	0.33	0.09	17.20	0.82	16.38
1986 ^p	13.91	4.80	18.71	1.67	0.22	0.08	16.74	0.77	15.97

n/a = not available.

r = revised.

p = preliminary.

¹ Volume reduction resulting from the removal of natural gas plant liquids. Natural gas plant liquids are transferred to petroleum supply.
² Beginning with 1965 data, all volumes are on a pressure base of 14.73 p.s.i.a at 60°F. For prior years, the pressure base is 14.65 p.s.i.a. at 60°F.

Note: Sum of components may not equal total due to independent rounding.
Source: U.S. DOE/EIA, *Annual Energy Review 1986*, Table 65.

**Table 76. Coal Supply and Disposition
(at 5-Year Intervals 1955-1965 and Annually 1966-1986)
(million short tons)**

Year	Supply			Disposition				
	Production	Imports	Change In Stocks, Losses and Unaccounted For ¹	Total	Exports	Anthracite Shipped Overseas to U.S. Armed Forces	Consumption	Total
1955	490.8	0.3	10.3	501.4	54.4	0	447.0	501.4
1960	434.3	0.3	1.5	436.1	38.0	0	398.1	436.1
1965	527.0	0.2	-3.0	524.1	51.0	1.13	472.0	524.1
1966	546.8	0.2	1.6	548.6	50.1	0.77	497.7	548.6
1967	564.9	0.2	-22.7	542.4	50.1	0.83	491.4	542.4
1968	556.7	0.2	4.9	561.8	51.2	0.82	509.8	561.8
1969	571.0	0.1	3.2	574.3	56.9	1.04	516.4	574.3
1970	612.7	*	-17.0	595.6	71.7	0.69	523.2	595.6
1971	560.9	0.1	-1.4	559.6	57.3	0.72	501.6	559.6
1972	602.5	*	-21.1	581.5	56.7	0.45	524.3	581.5
1973	598.6	0.1	17.9	616.6	53.6	0.44	562.6	616.6
1974	610.0	2.1	7.4	619.5	60.7	0.43	558.4	619.5
1975	654.6	0.9	-26.2	629.4	66.3	0.46	562.6	629.4
1976	684.9	1.2	-21.7	664.4	60.0	0.57	603.8	664.4
1977	697.2	1.6	-18.8	680.0	54.3	0.40	625.3	680.0
1978	670.2	3.0	-6.9	666.2	40.7	0.28	625.2	666.2
1979	781.1	2.1	-36.3	746.9	66.0	0.37	680.5	746.9
1980	829.7	1.2	-36.1	794.8	91.7	0.34	702.7	794.8
1981	823.8	1.0	20.7	845.5	112.5	0.37	732.6	845.5
1982	838.1	0.7	-25.4	813.5	106.3	0.22	706.9	813.5
1983	782.1	1.3	31.4	814.8	77.8	0.34	736.7	814.8
1984	895.9	1.3	-24.1	873.1	81.5	0.30	791.3	873.1
1985 ^r	883.6	2.0	25.4	911.0	92.7	0.24	818.0	910.9
1986 ^p	888.2	2.2	1.6	892.0	85.5	0.21	806.2	891.9

^r = revised.

^p = preliminary.

* Less than 0.05 million short tons.

¹ Includes changes in stocks at electric utilities, coke plants, other industries, retail dealers, and producers/distributors and the balancing item of losses and unaccounted for. Net additions to stocks are considered as negative numbers. Net withdrawals from stocks are considered as positive numbers. Sum of components may not equal total due to independent rounding.

Note:

Source: U.S. DOE/EIA, *Annual Energy Review 1986*, Table 73.

**Table 78. Deliveries of Distillate Fuel Oil by Use
(at 5-Year Intervals 1955-1970 and Annually 1971-1985)
(thousands of barrels)**

Year	Heating Oils	Industrial Use	Oil Company Fuel	Electric Utility	Railroads	Vessel Bunkering	Military Use ¹	Diesel Type			All Other	Total
								On Highway	Off Highway	Total		
1955	356,589	43,606	8,597	5,884	84,668	16,675	10,945	23,446	20,769	44,215	9,948	581,127
1960 ²	438,010	34,271	8,347	4,742	86,490	18,730	10,793	36,467	38,095	74,562	7,380	633,325
1965	475,992	42,484	10,430	3,661	86,436	15,532	14,953	73,776	50,346	124,122	13,281	786,891
1970	521,135	43,668	11,518	24,770 ³	88,416	19,503	12,447	148,796	46,123	194,919	10,874	927,250
1971	522,475	50,731	14,088	35,329	86,251	20,959	17,427	166,981	46,925	213,906	10,154	971,320
1972	543,337	60,388	13,405	68,334	97,001	22,126	20,187	189,055	50,186	239,241	10,852	1,074,870
1973	536,856	67,306	14,902	77,950	102,828	26,786	19,598	221,420	55,541	276,961	11,876	1,135,063
1974	493,223	64,036	13,805	84,661	102,949	24,757	17,748	221,033	48,743	269,776	10,131	1,081,086
1975	488,388	63,993 ⁴	13,633	63,420	92,191	26,138	18,004	217,906	48,977	266,883	10,096	1,043,746
1976	543,895	79,956	14,523	60,570	97,467	28,330	17,574	242,820	54,429	297,249	11,365	1,150,929
1977	538,845	96,502	19,954	76,681	99,841	33,512	20,121	264,412	66,452	330,864	14,394	1,230,179
1978	533,069	94,797	19,410	77,175	99,841	37,591	20,320	290,943	69,856	360,799	14,059	1,257,061
1979	454,955 ⁵	99,583	22,043	46,579	103,493	41,725	18,570	327,402	65,212	392,614	34,812	1,214,374
1980	393,122	86,089	24,205	31,812	102,022	35,201	19,138	323,431	51,705	375,136	19,994	1,086,709
1981	345,728	80,216	29,185	18,192	100,482	41,025	17,763	340,002	38,851	378,853	21,032	1,032,476
1982	324,912	71,340	29,482	12,134	93,150	33,885	15,201	338,006	37,118	375,124	19,639	974,864
1983	339,455	54,030	21,510	11,744	76,230	39,108	15,804	370,101	38,493	408,594	15,541	981,926
1984	352,127	56,114	21,623	16,405	82,308	40,287	16,579	399,939	39,847	439,786	15,988	1,041,217
1985	358,129	61,730	20,869	12,246	76,422	45,102	18,290	411,420	36,239	447,659	14,198	1,046,827

¹ Includes imports by military.

² Includes Alaska and Hawaii.

³ Includes gas turbine plants in 1970 and subsequent years.

⁴ Beginning in 1975, excludes oil company use.

⁵ Beginning in 1979, heating oils is no longer a separate category. The figure is derived by adding residential, commercial and farming.
Source: American Petroleum Institute, *Basic Petroleum Data Book*, 1986, Section VII, Table 10, 10a.

SUPPLEMENTARY DATA
Section III: Results of Nationwide
Personal Transportation Study
(NPTS)

Table 80. Household Vehicle Trips, Vehicle Miles of Travel and Average Trip Length by Trip Purpose, 1983

Trip Purpose ¹	Vehicle Trips Per Household		Vehicle Miles of Travel Per Household		Average Trip Length (Miles)
	Annual	Daily	Annual	Daily	
	Earning a Living	414	1.1	3,538	
Home-to-Work	44	0.1	496	1.4	11.4
Work Related	458	1.2	4,034	11.1	8.8
Subtotal					
Family and Personal Business	297	0.9	1,568	4.3	5.3
Shopping	18	0.1	172	0.5	9.7
Doctor/Dentist	272	0.7	1,816	5.0	6.7
Other ²	587	1.7	3,556	9.8	6.0
Subtotal					
Civic, Educational and Religious	87	0.2	480	1.3	5.5
Social and Recreational	147	0.4	1,590	4.4	10.8
Visiting Friends	5	(3)	132	0.3	22.7
Pleasure Driving	2	(3)	250	0.7	113.9
Vacation	181	0.5	1,562	4.3	8.7
Other ⁴	335	0.9	3,534	9.7	10.6
Subtotal					
Other ⁵	19	0.1	135	0.3	7.2
All Purposes	1,486	4.1	11,739	32.2	7.9

¹ The 1983 data are not comparable to the 1977 data due to the large number of trips in 1977 which could not be coded to a specific purpose, and were, therefore, included in "other".

² Includes trips such as going to the bank, garage for car repair, etc.

³ Less than 0.1 percent.

⁴ Includes trips such as going out to dinner, movies, etc.

⁵ Includes trips that cannot be classified in any of the other categories.

Source: U.S. DOT/FHWA, *Highway Statistics*, 1984.

Table 82. Percent of Households by Number of Vehicles, 1983, 1977, and 1969

Number of Household Vehicles	All Vehicles 1983 ¹	All Vehicles 1977 ¹	Autos 1969 ²
One	33.7	34.7	48.4
Two	33.6	34.3	26.4
Three	12.8	10.6	4.6 ³
Four or More	6.4	5.0	-
Subtotal	86.5	84.6	79.4
None	13.5	15.4	20.6
Total	100.0 ⁴	100.0 ⁵	100.0 ⁶

¹ In the 1977 and 1983 surveys, includes all vehicles available to the household, e.g., automobiles, vans, pickups, campers, and motorcycles.

² In the 1969 survey, includes automobiles and passenger vans available to the household.

³ Includes all households with three or more vehicles.

⁴ 85.4 million households.

⁵ 75.4 million households.

⁶ 62.5 million households.

Source: U.S. DOT/FHWA, *Highway Statistics*, 1984.

Table 83. Percent of Households by Number of Vehicles and Household Income, 1983

Number of Household Vehicles	Household Income					All Households
	Under \$10,000	\$10,000-\$19,999	\$20,000-\$29,999	\$30,000-\$39,999	\$40,000 and over	
One	42.8	46.2	30.4	17.7	12.2	33.7
Two	13.6	31.6	44.8	49.7	43.8	33.6
Three	3.1	10.2	15.2	20.5	25.5	12.8
Four or More	1.0	3.2	7.3	10.6	17.4	6.4
Subtotal	60.5	91.2	97.7	98.5	98.9	86.5
None	39.5	8.8	2.3	1.5	1.1	13.5
Total	100.0	100.0	100.0	100.0	100.0	100.0 ¹
Distribution of Households	26.2	26.7	20.8	12.1	14.2	100.0 ¹

¹ 85.4 million households.

Source: DOT/FHWA, *Highway Statistics*, 1984.

Table 86. Average Annual Miles Per Licensed Driver by Age and Sex, 1983, 1977, and 1969

Age	Male			Female		
	1983	1977	1969	1983	1977	1969
16	1,362	2,461	n/a	1,229	1,943	n/a
17	3,294	5,070	n/a	2,500	2,725	n/a
18	7,141	7,416	n/a	4,544	3,980	n/a
19	10,322	11,069	n/a	5,568	6,065	n/a
(19 and Under)	5,933	7,045	5,461	3,788	4,038	3,586
20 - 24	13,418	13,803	11,425	7,114	6,475	5,322
25 - 29	17,014	15,753	13,931	6,969	6,621	5,539
30 - 34	17,167	16,235	14,496	7,265	6,645	5,752
35 - 39	19,503	17,172	13,035	7,801	7,046	6,232
40 - 44	18,844	16,618	13,133	7,465	6,774	5,950
45 - 49	15,782	15,428	12,818	7,526	6,280	6,271
50 - 54	16,031	15,003	12,345	6,295	5,965	5,454
55 - 59	13,041	13,764	11,495	5,741	5,647	5,439
60 - 64	13,845	10,843	9,710	5,051	4,452	5,291
65 - 69	9,020	7,975	6,915	4,154	3,919	4,173
70 and Over	5,804	5,800	5,302	2,692	3,217	3,183
All Ages	14,480	15,575	11,352	6,382	5,940	5,411

n/a = not available.

Source: U.S. DOT/FHWA, *Highway Statistics*, 1984.

Table 87. Frequency of Seat Belt Usage by Age and Sex

Age and Sex	Frequency of Seat Belt Usage ¹				
	Always	Most of the Time	Sometimes	Never	Total ²
5-15					
Male	17.4	10.2	28.9	43.4	100.0
Female	19.0	11.2	29.6	40.2	100.0
16-19					
Male	9.8	6.2	24.1	59.5	100.0
Female	12.4	8.6	26.4	52.2	100.0
20-34					
Male	17.4	8.8	26.0	47.5	100.0
Female	18.3	9.9	26.8	44.7	100.0
35-64					
Male	18.0	9.8	24.2	47.6	100.0
Female	16.6	9.1	26.7	47.2	100.0
65 and Over					
Male	17.8	11.4	23.8	46.5	100.0
Female	17.5	11.5	22.9	47.6	100.0
All Ages					
Male	17.1	9.4	25.5	47.6	100.0
Female	17.3	9.9	26.8	45.7	100.0
Total	17.1	9.7	26.2	46.6	100.0

¹ Includes only trips of less than 75 miles.

² Includes "unknown" not listed separately.

Source: U.S. DOT/FHWA, *Highway Statistics*, 1984.

APPENDIX A

Source Information

Figure 1. Expenditures and Revenues, 1985 (cont'd)

37. Freight: *Ibid.*, p. 48, sum of scheduled and nonscheduled freight service.
38. Water: Sum of Passenger, Cargo, and Commercial Fishing.
39. Passenger, Water: TPA, *Transportation In America*, 1987, p. 5. Figure represents revenues of ICC-regulated carriers. Expenditures for private boating are not available.
40. Cargo, Water: *Ibid.*, p. 4, domestic operations only.
41. Commercial Fishing: U.S. DOC, *Statistical Abstract of the U.S.*, 1987, Table 1188.
42. Pipeline: TPA, *Transportation In America*, 1986, p. 4, includes revenues of regulated and unregulated oil pipelines.
43. Air Carrier: Figure represents overall operating revenues of the certificated carriers, total international operations. Same as Total Certificated figure, block (44).
44. Total Certificated: U.S. DOT/TSC, *Air Carrier Financial Statistics*, 1985/1986, p. 2, total operating revenues, international operations only.
45. Total International Majors: *Ibid.*, p. 4, total operating revenues in scheduled and nonscheduled service.
46. Passenger: *Ibid.*, p. 4, sum of scheduled and nonscheduled passenger service.
47. Freight: *Ibid.*, p. 4, sum of scheduled and nonscheduled freight service.
48. Total International Nationals: *Ibid.*, p. 32, total operating revenues in scheduled and nonscheduled service.
49. Passenger: *Ibid.*, p. 32, sum of scheduled and nonscheduled passenger service.
50. Freight: *Ibid.*, p. 32, sum of scheduled and nonscheduled freight service.
51. Water: Sum of Passenger and Cargo.
52. Passenger, Water: TPA, *Transportation In America*, 1987, p. 5.
53. Cargo, Water: *Ibid.*, p. 4.

Figure 2. Vehicle-Miles, 1985

1. Total Transportation: Sum of Domestic and International.
2. Domestic: Sum of Highway, Local Transit, Rail, and Air; Water data not available.
3. International: Includes Total Certificated; Water data not available.
4. Highway: Sum of Auto, Truck, and Bus.
5. Auto: Sum of Personal Passenger Car and Motorcycle.
6. Personal Passenger Car: U.S. DOT/Federal Highway Administration (FHWA), *Highway Statistics, Summary to 1985*, Table VM-201A, includes total rural and urban. This figure includes Taxi.
7. Taxi: Data for Taxi are included in the Personal Passenger Car category.
8. Motorcycle: U.S. DOT/FHWA, *Highway Statistics, Summary to 1985*, Table VM-201A, includes total rural and urban.
9. Truck: *Ibid.*
10. Single-Unit: *Ibid.*
11. Combination: *Ibid.*
12. Bus: Sum of Intercity Bus and School Bus.
13. Intercity Bus: ICC, *Transport Statistics in U.S.*, Part 2, 1985. Includes Class I, II, and III carriers reporting to the ICC and Intrastate carriers.
14. Class I: *Ibid.*, total vehicle-miles operated.
15. Regular-route: *Ibid.*, regular-route intercity service.
16. Local and Suburban: *Ibid.*, local and suburban service.
17. Charter and Special: *Ibid.*, charter and special service.
18. Class II and III: Figure derived by subtracting Class I from Intercity Bus.
19. School Bus: TPA, personal communication; includes total rural and urban.
20. Local Transit: UMTA, *National Urban Mass Transportation Statistics, 1985 Section 15 Annual Report*, Table 2.13, total revenue vehicle miles for all modes.
21. Motorbus: *Ibid.*

Figure 2. Vehicle-Miles, 1985 (cont'd)

63. Passenger: *Ibid.*, p. 55, line 25.
64. Cargo: *Ibid.*, p. 55, line 26.
65. Nonscheduled: *Ibid.*, p. 55, line 50.
66. Total International Large Regionals: *Ibid.*, p. 91, sum of scheduled, line 27, and nonscheduled, line 50, services.
67. Scheduled: *Ibid.*, p. 91, line 27.
68. Passenger: *Ibid.*, p. 91, line 25.
69. Cargo: *Ibid.*, p. 91, line 26.
70. Nonscheduled: *Ibid.*, p. 91, line 50.
71. Water: Not available.

Figure 3. Passenger-Miles, 1985

1. Total Transportation: Sum of Domestic and International.
2. Domestic: Sum of Highway, Local Transit, Rail, and Air; Water data not available.
3. International: Includes Air; Water data not available.
4. Highway: Sum of Auto and Bus.
5. Auto: Sum of Personal Passenger Car, Taxi, and Motorcycle.
6. Personal Passenger Car: U.S. DOT/FHWA, *Highway Statistics, Summary to 1985*, Table VM-201A. Passenger miles derived by multiplying total rural and urban passenger car travel by an average occupancy level of 2.3.
7. Taxi: Included in Personal Passenger Car.
8. Motorcycle: U.S. DOT/FHWA, *Highway Statistics, Summary to 1985*, Table VM-201A. Passenger miles derived by multiplying total rural and urban motorcycle travel by an average occupancy level of 1.1.
9. Bus: Sum of Intercity Bus and School Bus passenger-miles.
10. Intercity Bus: American Bus Association (ABA). Revenue passenger-miles, includes Classes I, II, and III carriers reporting to ICC plus Intrastate Carriers.
11. Class I: *Ibid.*, based on ICC data.
12. Regular-Route: *Ibid.*, ICC, *Transport Statistics in U.S.*, Part 2, 1985.
13. Class II and III: Figure derived by subtraction of Class I from Intercity.
14. School Bus: Best estimate by NHTSA, National Center for Statistics and Analysis.
15. Local Transit: UMTA, *National Urban Mass Transportation Statistics, 1985 Section 15 Annual Report*, Table 2.13, total for all modes.
16. Motor Bus: *Ibid.*
17. Rail Rapid/Streetcar: *Ibid.*
18. Trolley Bus: *Ibid.*
19. Demand Response: *Ibid.*
20. Ferryboat: *Ibid.*
21. Commuter Rail: *Ibid.*
22. Rail: TPA, *Transportation In America*, 1987, p. 36.
23. Class I: Sum of Commutation and Non-Commutation.
24. Commutation: TPA, *Transportation in America*, 1987, p. 36.
25. Amtrak: *Ibid.*
26. Air: Sum of General Aviation and Total Certificated.
27. General Aviation: TPA, *Transportation In America*, 1987, p. 8.
28. Total Domestic Certificated: U.S. DOT/TSC, *Air Carrier Traffic Statistics, 1985/1986*, p. 2, revenue passenger miles, all services, line 1.

Figure 3. Passenger-Miles, 1985 (cont'd)

72. Civilian: *Ibid.*, line 39.
73. Military: *Ibid.*, line 40.
74. Total International Large Regionals: *Ibid.*, p. 91, sum of scheduled, line 9, and nonscheduled, line 41, services.
75. Scheduled: *Ibid.*, line 9.
76. First Class: *Ibid.*, line 7.
77. Coach: *Ibid.*, line 8.
78. Nonscheduled: *Ibid.*, line 41.
79. Civilian: *Ibid.*, line 39.
80. Military: *Ibid.*, line 40.
81. Water: Not Available.

Figure 4. Revenue Ton-Miles of Freight, 1985

1. Total Transportation: Sum of Domestic and International.
2. Domestic: Sum of Highway, Rail, Air, Water and Pipeline.
3. International: Sum of Air and Water.
4. Highway: Figure represents total intercity ton-miles of motor vehicle transport.
5. Truck: Sum of local and intercity ton-miles .
6. Local Truck: Sum of Single-Unit and Combination Trucks.
7. Intercity: TPA, *Transportation In America*, 1987, p. 6, total intercity ton-miles.
8. Single-Unit: TPA, personal communication, estimate.
9. Combination: *Ibid.*
10. Rail: AAR, *Railroad Ten-Year Trends*, 1986, Table III-E-8.
11. Air: Same as Total Domestic Certificated, block (12).
12. Total Domestic Certificated: U.S. DOT/TSC, *Air Carrier Traffic Statistics*, 1985/1986, p. 2, Freight, Express, U.S. and Foreign Mail Revenue ton-miles, all services, line 3.
13. Total Domestic Majors: *Ibid.*, p. 5, line 3.
14. Scheduled: *Ibid.*, p. 5, sum of Freight, Air Express, U.S. Mail and Foreign Mail, lines 18-21.
15. Nonscheduled: *Ibid.*, p. 5, sum of Civilian Freight, line 44, and Military Freight, line 45.
16. Total Domestic Nationals: *Ibid.*, p. 54, line 3.
17. Scheduled: *Ibid.*, p. 54, sum of Freight, Air Express, U.S. Mail and Foreign Mail, lines 18-21.
18. Nonscheduled: *Ibid.*, p. 54, sum of Civilian Freight, line 44, and Military Freight, line 45.
19. Total Domestic Large Regionals: *Ibid.*, p. 90, line 3.
20. Scheduled: *Ibid.*, p. 90, sum of Freight, Air Express, U.S. Mail and Foreign Mail, lines 18-21.
21. Nonscheduled: *Ibid.*, p. 90, sum of Civilian Freight, line 44, and Military Freight, line 45.
22. Total Domestic Medium Regionals: *Ibid.*, p. 155, line 3, includes international operations.
23. Scheduled: *Ibid.*, p. 155, sum of Freight, Air Express, U.S. Mail and Foreign Mail, lines 18-21.
24. Nonscheduled: *Ibid.*, p. 155, sum of Civilian Freight, line 44, and Military Freight, line 45.
25. Water: U.S. Department of the Army, Corps of Engineers, *Waterborne Commerce of the United States*, 1985, Part 5, Section 3, Table 1, total domestic ton-miles.
26. Coastwise: *Ibid.*
27. Lakewise: *Ibid.*
28. Internal: *Ibid.*
29. Local: *Ibid.*
30. Pipeline: TPA, *Transportation In America*, 1987, p. 6, intercity ton-miles.

Figure 5. Number of Vehicles, 1985 (cont'd)

22. Commuter Rail: *Ibid.*
23. Ferryboat: *Ibid.*
24. Demand Response: *Ibid.*
25. Rail: Sum of passenger and freight.
26. Rail, Passenger: AAR, *Railroad Facts*, 1986, p. 50.
27. Rail, Freight: *Ibid.*, p. 46.
28. Air: Sum of General Aviation and Total Certificated.
29. General Aviation: U.S. DOT/Federal Aviation Administration (FAA), Office of Management Systems, *General Aviation Activity and Avionics Survey*, 1986, Table 2-9.
30. Rental: *Ibid.*
31. Business: *Ibid.*, includes Business and Executive Transportation.
32. Commercial: *Ibid.*, includes Air Taxi, Commuter Carrier and Aerial Application.
33. Instructional: *Ibid.*
34. Personal: *Ibid.*
35. Other: *Ibid.*, includes Other Work.
36. Total Certificated: Includes domestic and international aircraft; sum of Major, National and Regional airlines.
37. Majors: U.S. DOT/TSC, personal communication.
38. Nationals: *Ibid.*
39. Regionals: *Ibid.*, includes Large and Medium Regional airlines.
40. Water: U.S. Army, Corps of Engineers, *Summary of U.S. Flag Passenger & Cargo Vessels*, annual issues.
41. Self-Propelled: *Ibid.*
42. Dry Cargo/Passenger: *Ibid.*
43. Ferries, Railroad Car: *Ibid.*
44. Tankers: *Ibid.*
45. Towboats/Tugs: *Ibid.*
46. Sailing Vessels: *Ibid.*
47. Non-Self-Propelled: *Ibid.*
48. Barges/Scows: *Ibid.*
49. Tankers: *Ibid.*
50. Railroad Car Floats: *Ibid.*
51. Air: Not available, figure included in Domestic Total Certificated, block (36).
52. Water: U.S. DOT/Maritime Administration, *Merchant Fleets of the World*, 1986, p. 5.
53. Government: *Ibid.*
54. Private: *Ibid.*

Figure 6. Number of Fatalities, 1985

1. Total Transportation: Includes domestic fatalities only.
2. Domestic: Sum of Highway, Rail Rapid Transit, Rail, Air, Marine and Pipeline.
3. International: Not available, Air included in domestic category.
4. Highway: Sum of Automobile, Motorcycle, Truck, Bus, Bicycle, Pedestrian, and Other.
5. Personal Passenger Car: U.S. DOT/TSC, *Transportation Safety Information Report*, 1986 annual summary, Figure 8.
6. Taxi: National Safety Council, *Accident Facts*, 1986, p. 56.
7. Motorcycle: U.S. DOT/TSC, *Transportation Safety Information Report*, 1986 annual summary, Figure 8.

Figure 6. Number of Fatalities, 1985 (cont'd)

45. Pipeline: U.S. DOT/TSC, *Transportation Safety Information Report*, 1986 annual summary, Figure 7. This figure includes gas distribution and transmission lines (including gathering lines), and liquid transmission lines.
46. Air: Not available, figure is included in Total Certificated, block (33).
47. Water: Not available.

Figure 7. Energy Consumed in Transportation (10^{12} Btu), 1985

1. Total Transportation: Sum of Domestic and International.
2. Domestic: Sum of Highway, Rail, Air, Water, Pipeline and Local Transit.
3. International: Includes Total Certificated; Water data not available.
4. Highway: Sum of Personal Passenger Car, Truck, and Bus.
5. Personal Passenger: Sum of Personal Passenger Car, Taxi, and Motorcycle.
6. Personal Passenger Car (includes Taxi): U.S. DOT/FHWA, *Highway Statistics, Summary to 1985*, Table VM-201A, multiplied by the conversion factor of motor gasoline (125,000 Btu/gallon).
7. Taxi: Included in Passenger Car.
8. Motorcycle: U.S. DOT/FHWA, *Highway Statistics, Summary to 1985*, Table VM-201A, multiplied by the conversion factor of motor gasoline (125,000 Btu/gallon).
9. Truck: Sum of Single-Unit and Combination.
10. Single-Unit: U.S. DOT/FHWA, *Highway Statistics, Summary to 1985*, Table VM-201A, multiplied by the conversion factor of motor gasoline (125,000 Btu/gallon).
11. Combination: *Ibid.*, multiplied by the conversion factor of distillate fuel oil (138,700 Btu/gallon).
12. Bus: Sum of Class I Intercity, School Bus and Local Bus.
13. Class I Intercity: TPA, personal communication, fuel consumed, multiplied by the conversion factor of distillate fuel oil (138,700 Btu/gallon).
14. School Bus: *Ibid.*, multiplied by the conversion factor of motor gasoline (125,000 Btu/gallon).
15. Local Bus: *Ibid.*
16. Local Transit: UMTA, *National Urban Mass Transportation Statistics, 1985 Section 15 Annual Report*, Table 2.10; figure multiplied by the conversion factor of electricity (1 kWh = 3412 Btu).
17. Rail: Sum of Passenger and Class I Rail Freight.
18. Passenger: Sum of Class I Rail Passenger and Amtrak.
19. Class I Rail Passenger: AAR, *Railroad Ten-Year Trends*, 1986, Table III-D-2, multiplied by the conversion factor of distillate fuel oil (138,700 Btu/gallon), excludes electricity.
20. Amtrak: Amtrak, Mechanical Department, personal communication.
21. Class I Rail Freight: AAR, *Railroad Ten-Year Trends*, 1986, Table III-D-2, multiplied by the conversion factor of distillate fuel oil (138,700 Btu/gallon).
22. Air: Sum of Total Certificated and General Aviation.
23. General Aviation: U.S. DOT/FAA, *General Aviation Activity and Avionics Survey*, 1985, Table 2-21. Figure derived by the addition of kerosene-type jet fuel and aviation gasoline, converted to Btu by their respective conversion factors.
24. Total Domestic Certificated: U.S. DOT/TSC, *Fuel Cost and Consumption, Twelve Months Ended Dec. 31, 1985*. Total Domestic Certificated figure converted into barrels and multiplied by the conversion factor of kerosene-type jet fuel (5,670,000 Btu/barrel).
25. Total Domestic Majors: *Ibid.*
26. Total Domestic Nationals: *Ibid.*
27. Total Domestic Large Regionals: *Ibid.*
28. Water: U.S. DOT/FHWA, *Highway Statistics*, 1985, Table MF-24, multiplied by the conversion factor of motor gasoline (125,000 Btu/gallon).
29. Pipeline: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 1986*, Table 69, converted to Btu by thermal conversion factor for natural gas, p. 264.

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1. American Bus Association.
2. American Gas Association, *Gas Facts*, 1985, 1980.
3. American Trucking Association, Inc., *Truck Taxes and Highway Finance*, 1986.
4. *Ibid.*, Department of Publications and Statistics.
5. Amtrak, Intergovernmental Affairs Office.
6. Association of American Railroads.
7. *Ibid.*, *Railroad Facts*, 1986, 1976.
8. *Ibid.*, *Railroad Ten-Year Trends*, 1986.
9. *Ibid.*, *Statistics of Railroads of Class I in the U.S.*, 1983.
10. Association of Oil Pipelines, *Shifts in Petroleum Transportation*, 1987.
11. CAB, *Air Carrier Financial Statistics*, 1984.
12. Federal Energy Regulatory Commission (FERC).
13. Interstate Commerce Commission.
14. *Ibid.*, *100th/99th/90th Annual Report of the ICC*, 1986, 1985, 1976.
15. *Ibid.*, *Transport Statistics in the United States*, Part 2, 1985.
16. National Safety Council, *Accident Facts*, 1986, 1985, 1976.
17. National Transportation Safety Board (NTSB), Information Systems Division.
18. Penn Well Publishing Company, *Oil and Gas Journal*, 1986, 1976.
19. Transportation Association of America, *Transportation Facts and Trends*, 1975.
20. Transportation Policy Associates.
21. *Ibid.*, *Transportation In America*, 1987.
22. U.S. Army, Corps of Engineers, *Summary of U.S. Flag & Cargo Passenger Vessels*, annual issues.
23. *Ibid.*, *Waterborne Commerce of the United States*, 1985, Part 5.
24. U.S. Coast Guard, *Boating Statistics*, 1985, 1984, 1975.
25. *Ibid.*, Marine Safety Evaluation Branch, G-MM1-3.
26. U.S. Department of Commerce, Bureau of Economic Analysis.
27. *Ibid.*, *Survey of Current Business*, 1986, 1982.
28. *Ibid.*, Bureau of the Census, *Statistical Abstract of the United States*, 1987.
29. U.S. Department of Energy, *Natural Gas Annual*, 1985.
30. *Ibid.*, *Statistics of Interstate Natural Gas Pipeline Companies*, 1985, 1975.
31. U.S. Department of Labor (DOL), Bureau of Statistics, *Supplement to Employment and Earnings, Revised Establishment Data*, 1986.
32. U.S. DOT/Federal Aviation Administration (FAA), *FAA Statistical Handbook of Aviation*, annual issues.
33. *Ibid.*, Office of Management Systems, *General Aviation Activity and Avionics Survey*, 1987, 1986.

TABLE REFERENCES

Table 1. Average Passenger Revenue Per Passenger Mile, 1975-1985

Certificated Air Carrier, Domestic Operations, Scheduled Service:

- 1975-1984: Civil Aeronautics Board (CAB), *Air Carrier Financial Statistics*, 1976-1984, annual issues, p. 2, lines 1, 2, and 3; *Air Carrier Traffic Statistics*, 1976-1984, annual issues, p. 4/5, lines 7, 8, and 9. To compute Total, First Class, and Coach plus economy figures, divide line 1 by line 7, line 2 by line 8, and line 3 by line 9. To compute the index for Total, divide Total figure by 1967 index of 5.64. Use the same method for First Class and Coach plus economy, however, change the 1967 index to 7.24 for First Class and 5.13 for Coach plus economy.
- 1985: U.S. Department of Transportation (DOT) Transportation Systems Center (TSC), *Air Carrier Financial Statistics*, annual issue, 1985/1986, p. 1, lines 1, 2 and 3; *Air Carrier Traffic Statistics*, 1985/1986, annual issue, p. 2, lines 7, 8 and 9.

Class I Rail:

- 1975-1979: Association of American Railroads (AAR), *Statistics of Railroads of Class I in the U.S.*, 1980, p. 8, lines 2, 3, and 4 and p. 18, lines 12, 13, and 14. All Class I average passenger revenue per passenger mile data was calculated by dividing passenger revenue by passenger miles and subtracting Amtrak and Auto-Train passenger revenue and revenue passenger mile data. As of 1978, Auto-Train is no longer Class I.
- 1980: *Ibid.*, Operating and Traffic Statistics, 1981.
- 1981-1985: Transportation Policy Associates (TPA), personal communication.

Amtrak:

- 1975-1979: AAR, *Statistics of Railroads of Class I in the U.S.*, 1982, p. 17, passenger revenue (Acct. 102) divided by passenger mile data, abstracted from Transportation Policy Associates, *Transportation in America*, 1983, p. 14.
- 1980-1985: *Ibid.*, *Railroad Facts*, annual issues, p. 61.

Class I Bus, Intercity:

- 1975-1979: American Bus Association (ABA), *Bus Facts*, 1981, p. 12.
- 1980-1981: *Ibid.*, 1982, p. 7.
- 1982-1983: *Ibid.*, personal communication.
- 1984-1985: Interstate Commerce Commission (ICC), Bureau of Accounts, personal communication.

Consumer Price Index:

- 1975-1980: U.S. Department of Commerce (DOC), Bureau of Economic Analysis, *Survey of Current Business*, July issues, p. S-6.
- 1981-1983: *Ibid.*, July issues, p. S-5.
- 1984-1985: U.S. Department of Labor (DOL), Bureau of Labor Statistics, *Consumer Price Index for All Urban Consumers*, annual issues.

Table 2. Average Freight Revenue Per Ton-Mile, 1975-1985

Certificated Air Carrier, Domestic Operations, Scheduled Service:

- 1975-1984: CAB, *Air Carrier Financial Statistics*, 1976-1984, annual issue, p. 2, line 4; *Air Carrier Traffic Statistics*, 1976-1984, annual issues, p. 4/5, line 18. Freight revenue (Financial Statistics) divided by revenue ton-miles of freight (Traffic Statistics).
- 1985: U.S. DOT/TSC, *Air Carrier Financial Statistics*, 1985/1986, annual issue, p. 1, line 4; *Air Carrier Traffic Statistics*, 1985/1986, annual issue, p. 2, line 18. Freight revenue (Financial Statistics) divided by revenue ton-miles of freight (Traffic Statistics).

Class I Rail:

- 1975-1976: *Ibid.*, 1978, p. 11.
- 1977-1980: AAR, *Operating and Traffic Statistics*, 1981.
- 1981-1985: TPA, *Transportation in America*, 1987, p. 11.

Table 4. Total Operating Revenues, 1975-1985 (cont'd)

Local Transit:	
1975-1978:	Not available.
1979-1982:	Urban Mass Transportation Association (UMTA), <i>1981/1982 Section 15 Annual Reports</i> , Tables 001.02.2 and 002.02.
1983-1985:	UMTA, <i>1983-1985 Section 15 Annual Reports</i> , Table 2.01.2.
Oil Pipeline, ICC-Regulated only:	
1975-1976:	TAA, <i>Transportation Facts and Trends</i> , 1978, p. 4.
1977-1979:	<i>Ibid.</i> , 1981, p. 2.
1980-1985:	TPA, <i>Transportation In America</i> , 1987, p. 4.
Gas Pipeline:	
1975-1985:	Transmission Companies: American Gas Association (AGA), <i>Gas Facts</i> , 1985, p. 146.
1975-1985:	Distribution Companies: <i>Ibid.</i> , p. 145.
Class I Intercity Motor Carriers of Property:	
1975-1985:	ICC, <i>100th Annual Report of the ICC</i> , 1986, Appendix E, Table 6, and similar table in earlier editions.
Class I Rail:	
1975-1985:	AAR, <i>Railroad Ten-Year Trends</i> , 1986, Table II-A-1.
Amtrak:	
1975-1982:	AAR, <i>Statistics of Railroads of Class I in the U.S.</i> , 1983, p.16.
1983-1985:	<i>Ibid.</i> , <i>Railroad Facts</i> , annual issues, p. 61.
Water Transport:	
ICC-Regulated Carriers, Inland and Coastal Waterways:	
1975-1979:	ICC, <i>94th Annual Report of the ICC</i> , 1980, Table 10 and similar table in earlier editions.
1980-1985:	TPA, <i>Transportation in America</i> , 1987, p. 10.
Maritime Carriers:	
1975-1979:	ICC, <i>94th Annual Report of the ICC</i> , 1980, Table 11 and similar table in earlier editions.
1980-1985:	U.S. DOT/Maritime Administration, personal communication.
Class A Freight Forwarders:	
1975-1979:	ICC, <i>94th Annual Report of the ICC</i> , 1980, Table 12 and similar table in earlier editions.
1980-1985:	TPA, <i>Transportation In America</i> , 1987, p. 4.

Table 5. Vehicle-Miles, 1975-1985

Air Carriers:	
Certificated Domestic Operations, All services:	
1975-1979:	CAB, <i>Air Carrier Traffic Statistics</i> , 1976-1979, annual issues, p. 4/5, line (27) plus line (50).
1980-1984:	<i>Ibid.</i> , 1981-1984/85, annual issues, p. 2, line (27) plus line (50).
1985:	U.S. DOT/TSC, <i>Air Carrier Traffic Statistics</i> , 1985/1986, p. 2, line (27) plus line (50).
Total Majors, domestic operations:	
1975-1979:	Not available.
1980-1984:	CAB, <i>Ibid.</i> , 1981-1984/85, annual issues, p. 5, line (27) plus line (50).
1985:	U.S. DOT/TSC, <i>Ibid.</i> , 1985/1986, p. 5, line (27) plus line (50).
Total Nationals, domestic operations:	
1975-1979:	Not available.
1980-1984:	CAB, <i>Ibid.</i> , 1981-1984/85, annual issues, p. 47, line (27) plus line (50).
1985:	U.S. DOT/TSC, <i>Ibid.</i> , 1985/1986, p. 54, line (27) plus line (50).

Table 6. Passenger-Miles, 1975-1985 (cont'd)

Total Majors, domestic operations:

1975-1984: CAB, *Ibid.*, 1976-1984/85, annual issues, p. 5, lines 1.
1985: U.S. DOT/TSC, 1985/1986, p. 5, line 1.

Total Nationals, domestic operations:

1975-1984: CAB, *Ibid.*, 1976-1984/85, annual issues, p. 47, line 1.
1985: U.S. DOT/TSC, 1985/1986, p. 54, line 1.

Total Large Regionals, domestic operations:

1975-1984: CAB, *Ibid.*, 1976-1984/85, annual issues, p. 83, line 1.
1985: U.S. DOT/TSC, 1985/1986, p. 90, line 1.

Total Medium Regionals, domestic and international operations.

1975-1984: CAB, *Ibid.*, 1976-1984/85, annual issues, p. 113, line 1.
1985: U.S. DOT/TSC, 1985/1986, p.155, line 1.

General Aviation:

1975-1985: TPA, *Transportation In America*, 1987, p. 8.

Highway:

Passenger Car and Taxi:

1975-1985: U.S. DOT/FHWA, *Highway Statistics, Summary to 1985*, Table VM-201A and similar table in earlier editions. Vehicle-miles multiplied by a constant average occupancy of 2.3.

Intercity Bus:

1975-1980: ABA, *Bus Facts*, 1982, p. 2.
1981-1983: *Ibid.*, personal communication.
1984-1985: ICC, Bureau of Accounts, personal communication.

Class I Rail:

1975-1979: AAR, *Statistics of Railroads of Class I in the U.S.*, 1980, p. 8 and p. 18. Amtrak and Auto-Train data (p. 18) subtracted from Class I data (p. 8).
1980: *Ibid.*, *Operating & Traffic Statistics*, 1981, p. 8.
1981-1985: TPA, *Transportation in America*, 1987, p. 36.

Amtrak:

Commutation and Non-Commutation:

1975-1979: AAR, *Statistics of Railroads of Class I in the U.S.*, 1980, p. 18.
1980: *Ibid.*, *Operating & Traffic Statistics*, 1981, p. 8.
1981-1985: Amtrak, Marketing Department, personal communication.

Table 7. Revenue Ton-Miles of Freight, 1975-1985

Certificated Air Carrier:

1975-1979: CAB, *Air Carrier Traffic Statistics*, 1976-1980, annual issues, p. 4/5, line 3.
1980-1984: *Ibid.*, 1981-1984/85, annual issues, p. 2, line 3.
1985: U.S. DOT/TSC, *Air Carrier Traffic Statistics*, 1985/1986, p. 2, line 3.

Oil Pipeline:

1975-1985: TPA, *Transportation In America*, 1987, p. 6.

Class I Rail:

1975-1985: AAR, *Railroad Ten-Year Trends*, 1986, Table III-E-8.

Table 9. Number of Vehicles, 1975-1985 (cont'd)

Passenger Car and Taxi:

1975-1985: *Ibid.*

Intercity Bus:

1975-1980: ABA, *Bus Facts*, 1982, p. 2.

1981-1983: *Ibid.*, personal communication.

1984-1985: ICC, Bureau of Accounts, personal communication.

Local Transit:

1975-1981: APTA, *Transit Fact Book*, 1981, Tables 13 and 15.

1982-1985: *Ibid.*, personal communication.

Class I Rail:

Freight Cars:

1975-1985: AAR, *Railroad Facts*, annual issues, p. 46.

Locomotives:

1975-1985: *Ibid.*, p. 44.

Passenger Cars and Pullman:

1975-1985: *Ibid.*, p. 50.

Amtrak:

Passenger Cars and Pullman and Locomotives:

1975-1985: *Ibid.*, p. 61.

Truck:

1975-1985: U.S. DOT/FHWA, *Highway Statistics, Summary to 1985*, Table VM-201A.

Water Transport:

Total Inland Water Vessels:

1975-1985: Sum of Non-self-propelled vessels and Self-propelled vessels.

Non-self propelled vessels and Self-propelled vessels:

1975-1976: U.S. Army, Corps of Engineers, *Summary of U.S. Flag Passenger & Cargo Vessels*, annual issues. Data as of Jan. 1, 1974, 1975 and 1976, respectively.

1977-1979: *Ibid.*, Data as of Oct. 1, 1977, 1978 and 1979, respectively.

1980: *Ibid.*, Data as of Dec. 31, 1980.

1981-1982: *Ibid.*, Beginning in 1981 data are collected every 2 years and are shown in 1982 column.

1983-1984: *Ibid.*, Data shown in 1984 column.

1985: *Ibid.*, preliminary figures.

Oceangoing Steam and Motor Ships:

1975-1978: *Ibid.*, *Merchant Fleets of the World*, annual issues.

1979: *Ibid.*, *A Statistical Analysis of the World's Merchant Fleets*, 1981.

1980: U.S. DOT, *Merchant Fleets of the World*, 1981, p. 2.

1981: *Ibid.*, Maritime Administration, MAR-371, personal communication.

1982-1985: *Ibid.*, *Merchant Fleets of the World*, annual issues.

Table 10. Number of New Vehicles Purchased by Mode, 1975-1985

Air Carrier:

1975-1985: Aerospace Industries Association, *1986 Aerospace Year-End Review and Forecast*, Table V.

General Aviation:

1975-1978: U.S. DOT/FAA, *FAA Statistical Handbook of Aviation*, 1978, Table 9-2.

1979-1985: General Aviation Manufacturers Association, personal communication, data includes shipments of aircraft only.

Table 15. Number of Fatalities by Mode, 1975-1986 (cont'd)

Motor Carriers of Passengers:

1975: *Ibid.*, annual issues, Table 5.
1976-1986: *Ibid.*, annual issues, Table 7.

Rail-Highway Grade Crossing:

1975-1986: *Ibid.*, 1986 annual summary, Figure 12.

Rail:

1975-1986: *Ibid.*, 1986 annual summary, Figure 12.

Rail Rapid Transit:

1975-1976: Not available.
1977: *Ibid.*, 1978 annual summary, Chart 15.
1978: *Ibid.*, 1979 annual summary, Charts 15, 16, and 17.
1979: *Ibid.*, 1980 annual summary, p. 26.
1980: *Ibid.*, 1981 annual summary, Tables 11, 12 and 13.
1981-1986: *Ibid.*, 1986 annual summary, Table 10.

U.S. Air Carriers:

1975-1986: *Ibid.*, 1985 annual summary, Figure 24.

Commuter Air Carriers:

1975-1986: *Ibid.*, 1986 annual summary, Table 12.

On-Demand Air Taxi:

1975-1986: *Ibid.*, 1986 annual summary, Table 13.

U.S. General Aviation:

1975-1986: *Ibid.*, 1986 annual summary, Figure 32.

Waterborne Transportation:

1975-1986: *Ibid.*, 1986 annual summary, Figure 42.

Recreational Boating:

1975-1986: *Ibid.*, 1986 annual summary, Figure 51.

Liquid Pipeline:

1975-1986: *Ibid.*, 1986 annual summary, Figure 57B.

Gas Pipeline:

1975-1986: *Ibid.*, 1986 annual summary, Figure 57B.

Hazardous Materials:

1975-1986: *Ibid.*, 1986 annual summary, Figure 65.

Table 19. Personal Consumption Expenditures by Transportation Sector, 1975-1986

1975-1986: U.S. DOC, Bureau of Economic Analysis, *Survey of Current Business*, 1986, Table 2.4.

Table 20. Personal Consumption Expenditures by Type of Product, 1975-1986

1975-1986: U.S. DOC, Bureau of Economic Analysis, *Survey of Current Business*, 1986, Table 2.4.

Table 21. National Income by Transportation Sector, 1975-1985

1975-1985: U.S. DOC, Bureau of Economic Analysis, *Survey of Current Business*, 1986, Table 6.3B.

Table 24. Employment in Transportation and Related Industries, 1975-1985 (cont'd)

Motor Vehicles and Equipment:	
1975-1976:	<i>Ibid.</i> , <i>Employment and Earnings, United States, 1909-78</i> , SIC 301 and 371, sum of motor vehicles and equipment and tires.
1977-1985:	<i>Ibid.</i> , <i>Supplement to Employment and Earnings, Revised Establishment Data, 1986</i> , SIC 301 and 371, sum of motor vehicles and equipment and tires.
Railroad Equipment:	
1975-1976:	<i>Ibid.</i> , <i>Employment and Earnings, United States, 1909-78</i> , SIC 374.
1977-1985:	<i>Ibid.</i> , <i>Supplement to Employment and Earnings, Revised Establishment Data, 1986</i> , SIC 374.
Ships and Boat Building and Repair:	
1975-1976:	<i>Ibid.</i> , <i>Employment and Earnings, United States, 1909-78</i> , SIC 373.
1977-1985:	<i>Ibid.</i> , <i>Supplement to Employment and Earnings, Revised Establishment Data, 1986</i> , SIC 373.
Other:	
1975-1985:	<i>Ibid.</i> , <i>Supplement to Employment and Earnings, Revised Establishment Data, 1986</i> , sum of SIC 376 and SIC 379.
Related Industries:	
Automotive and Accessory Retailers:	
1975-1976:	<i>Ibid.</i> , <i>Employment and Earnings, United States, 1909-78</i> , SIC 551, 2 and 553.
1977-1985:	<i>Ibid.</i> , <i>Supplement to Employment and Earnings, Revised Establishment Data, 1986</i> , SIC 551, 2 and 553, sum of new and used automobile dealers and other auto and home supply stores.
Automotive Wholesalers:	
1975-1976:	<i>Ibid.</i> , <i>Employment and Earnings, United States, 1909-78</i> , SIC 501.
1977-1985:	<i>Ibid.</i> , <i>Supplement to Employment and Earnings, Revised Establishment Data, 1986</i> , SIC 501.
Automotive Services and Garages:	
1975-1976:	<i>Ibid.</i> , <i>Employment and Earnings, United States, 1909-78</i> , SIC 75.
1977-1985:	<i>Ibid.</i> , <i>Supplement to Employment and Earnings, Revised Establishment Data, 1986</i> , SIC 75.
Gasoline Service Stations:	
1975-1976:	<i>Ibid.</i> , <i>Employment and Earnings, United States, 1909-78</i> , SIC 554.
1977-1985:	<i>Ibid.</i> , <i>Supplement to Employment and Earnings, Revised Establishment Data, 1986</i> , SIC 554.
Highway and Street Construction:	
1975-1976:	<i>Ibid.</i> , <i>Employment and Earnings, United States, 1909-78</i> , SIC 161.
1977-1985:	<i>Ibid.</i> , <i>Supplement to Employment and Earnings, Revised Establishment Data, 1986</i> , SIC 161.
Petroleum:	
1975-1976:	<i>Ibid.</i> , <i>Employment and Earnings, United States, 1909-78</i> , Section B-2, SIC 13, 291, and 50, sum of SIC 13, 291, and 4.5% of SIC 50 (to account for petroleum bulk stations and terminals.) The totals are adjusted for 56% transportation use.
1977-1985:	<i>Ibid.</i> , <i>Supplement to Employment and Earnings, Revised Establishment Data, 1986</i> , sum of SIC 13, p. 6, SIC 291 and 4.5% of SIC 50. The totals are adjusted for 56% transportation use.
Other Industries:	
Truckdrivers and Deliverymen:	
1975-1979:	TAA, <i>Transportation Facts and Trends</i> , July issues, p. 22/23.
1980-1985:	TPA, <i>Transportation in America</i> , 1987, p. 18.
Shipping and Receiving Clerks:	
1975-1979:	TAA, <i>Transportation Facts and Trends</i> , July issues, p. 22/23.
1980-1985:	TPA, <i>Transportation In America</i> , 1987, p. 18.
Government Employees:	
U.S. DOT	
1975-1985:	U.S. DOC, Bureau of the Census, <i>Statistical Abstract of the U.S.</i> , 1987, Table 468 and similar table in earlier editions.

Table 27. Expenditures and Overseas Travel by U.S. Residents and Foreign Visitors, 1975-1985 (cont'd)

Total Travel and Passenger Fare Transactions:
 1975-1985: Sum of Travel Receipts in U.S. and Passenger Fare Receipts in U.S.

Travel Receipts in U.S.:
 1975-1985: U.S. DOC, Bureau of the Census, *Statistical Abstract of the U.S.*, 1987, Table 389.

Passenger Fare Receipts in U.S.:
 1975-1985: *Ibid.*, 1987, Table 389.

Table 34. Fuel Consumption by Mode of Transportation, 1975-1985

Class I Rail:

Locomotives:
 1975-1985: Diesel Oil, AAR, *Railroad Ten-Year Trends*, 1986, Table III-D-2.
 1975-1982: Electricity, AAR, *Statistics of Railroads of Class I in the U.S.*, 1983, p. 15.
 1983-1985: *Ibid.*, Economics and Finance Department, personal communication.
 1975-1979: Coal, Tons, AAR, *Statistics of Railroads of Class I in the U.S.*, 1983, p. 15
 1980-1985: *Ibid.*, *Railroad Ten-Year Trends*, 1986, Tables III-D-5 and III-D-6.

Motor Cars:
 1975-1985: Diesel Oil, *Ibid.*, Table III-D-2.
 1975-1985: Electricity, *Ibid.*, Table III-D-5.

Air Carriers:
 Certificated Carriers, Domestic and International:
 1975: U.S. DOT/FAA, *FAA Statistical Handbook of Aviation*, 1975, Table 6.27.
 1976-1984: CAB, *Fuel Cost and Consumption, Twelve Months Ended Dec. 31, 1980 and 1979; 1981 and 1980; 1983 and 1982; 1984*; Total of Tables 2, 3, 4, 6 and 7 and similar tables in earlier editions.
 1985: U.S. DOT/TSC, *Twelve Months Ended Dec. 31, 1985*, p. 1.

General Aviation:
 1975: U.S. DOT/FAA, Information and Statistical Division, personal communication.
 1976-1977: *Ibid.*, Office of Aviation Policy, personal communication.
 1978-1985: *Ibid.*, *General Aviation Activity and Avionics Survey*, 1986, Table 2-21, and similar table in earlier editions.

Highway:
 1975-1985: U.S. DOT/FHWA, *Highway Statistics*, 1985, Table VM-1 and similar table in earlier editions. Commercial and School bus figures for 1984-1985 were calculated by the Transportation Policy Associates.

Water Transport:
 Residual and Distillate Fuel Oil:
 1975-1984: American Petroleum Institute, *Basic Petroleum Data Book*, annual issues, Tables 10, 10a, 12, and 12a.
 1985: U.S. DOE, *Petroleum Marketing Monthly*, December 1986.

Gasoline:
 1975-1985: U.S. DOT/FHWA, *Highway Statistics*, 1985, Table MF-24 and similar table in earlier editions.

Transit:
 Electricity:
 1975-1978: Not available.
 1979-1982: UMTA, *1981-1982 Section 15 Annual Reports*, Table 002.11.1. Section 15 Reporting System began in 1979, data reported on a fiscal year basis.
 1983-1985: UMTA, *Urban Mass Transportation Statistics, 1983-1985 Section 15 Annual Reports*, Table 2.10.

APPENDIX B

Glossary

DOMESTIC OPERATIONS: Operations within and between the 50 States and the District of Columbia. Includes domestic operations of the certificated trunk carriers, Pan American, 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.

ECONOMY: Transport services established for the carriage of passengers at fares and quality of service below that of coach service.

FIRST-CLASS: Transport service established for the carriage of passengers moving at either standard fares or premium fares, or at reduced fares not predicated upon the operation of specifically allocated aircraft space, and for whom standard or premium quality services are provided.

FIXED-WING AIRCRAFT: Aircraft having nonrotating wings fixed to the airplane fuselage and outspread in flight.

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.

JET ENGINE: An engine which converts fuel and air into a fast-moving stream of hot gases which effect propulsion of the device of which the engine is a part.

JET FUEL: Includes both naphtha-type and kerosene-type fuels meeting standards for use in aircraft turbine engines. Although most jet fuel is used in aircraft, some is used for other purposes such as for generating electricity in gas turbines.

KEROSENE-BASE JET FUEL: A quality kerosene product with an average gravity of 40.7 degrees API and 10 to 90% distillation temperatures of 217 to 261 degrees C. Used primarily as fuel for commercial turbojet and turboprop aircraft engines. It is a relatively low freezing point distillate of the kerosene type.

LARGE REGIONALS: Carrier groups with annual operating revenues of \$10,000,000-\$74,999,999. Included in this group are Air Atlanta, Airlift, Airpac, Air Wisconsin, Aspen, Britt, Buffalo, Cascade, Emerald, Empire, Evergreen, Five Star, Florida Express, Frontier Horizon, Gulf Air Transport, Horizon Air, International Air Service, Interstate, Key, Markair, Midway Express, Midwest Express, Northern Air, Overseas, Pilgrim, Presidential, Reeve, Rich, Royal West, Ryan, Sky World, Southern Air, Sun Country, Sunworld, Total Air and Tower. Airlines in this category are subject to periodic changes.

MAJORS: Carrier groups with annual operating revenues of \$1,000,000,000+. Included in this group are American, Continental, Delta, Eastern, Federal Express, Flying Tiger, Northwest, Pan American, Piedmont, Republic, Trans World, United, USAir, and Western. Airlines in this category are subject to periodic changes.

MEDIUM REGIONALS: Carrier groups with annual operating revenues of \$0-\$9,999,999 (or that operate only aircraft with 60 seats or less or 18,000 pounds maximum payload or less). Included in this group are Aerial, Aeron, All Star, Atlantic Gulf, Best, Challenge, Challenge Air Cargo, Challenge Air International, Flight International, Galaxy, Great American, Independent Air, Jet Charter, Jet East, Jet Fleet, McClain, Millon, Northeastern, Pacific Interstate, Rosenbalm, Samoa, Skybus, Skystar, South Pacific, Trans Air Link, Trans International, and Worldwide. Airlines in this category are subject to periodic changes.

NAPHTHA-BASE JET FUEL: A fuel in the heavy naphtha boiling range with an average gravity of 52.8 degrees API and 10 to 90% distillation temperatures of 117 to 233 degrees C. Used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ramjet and petroleum.

NATIONALS: Carrier groups with annual operating revenues of \$75,000,000-\$1,000,000,000. Included in this group are Air California, Alaska, Aloha, American West, American Trans Air Arrow, Braniff, Inc., Frontier, Hawaiian, Jet America, Midway, New York Air, Ozark, Pacific Southwest, People Express, Southwest, Transamerica, TranStar, Wien, World and Zantop. Airlines in this category are subject to periodic changes.

NON-OPERATING INCOME AND EXPENSES: Income and loss of commercial ventures not part of the common carrier air transport services of the accounting entity; other revenues and expenses attributable to financing or other activities that are extraneous to and not an integral part of air transportation or its incidental services.

NON-REVENUE FLIGHTS: Flights and flight stages involving training, test, technical, positioning for scheduled flights, ferry, company business, publicity and forced returns for which no remuneration is received.

NON-SCHEDULED FREIGHT: Property carried in charter operations.

TRANSPORT REVENUES: Revenues from transportation by air of all classes of traffic in scheduled and nonscheduled service, including the performance of charters.

TURBOFAN AIRCRAFT: Aircraft propelled by a turbojet engine whose thrust has been increased by the addition of a low-pressure compressor (fan). The turbofan engine can have an oversized low-pressure compressor at the front, with part of the flow by-passing the rest of the engine (front-fan or forward-fan), or it can have a separate fan driven by a turbine stage (aft-fan).

TURBOJET AIRCRAFT: Aircraft propelled by jet engines incorporating a turbine-driven air compressor to take in and compress the air for the combustion of fuel, the gases of combustion (or the heated air) being used both to rotate the turbine and to create a thrust-producing jet.

TURBOPROP AIRCRAFT: Aircraft in which the main propulsive force is supplied by a conventional propeller driven by a gas turbine. Additional propulsive force may be supplied from the discharged turbine exhaust gas.

* As a result of the Airline Deregulation Act of 1978, the Civil Aeronautics Board (CAB) functions are now handled by the U.S. Department of Transportation's Research and Special Programs Administration.

GENERAL AVIATION TERMINOLOGY

ACTIVE AIRCRAFT: All legally registered civil aircraft which flew one or more hours.

AERIAL APPLICATION: Any use of an aircraft for work purposes which concerns the production of foods, fibers, and health control in which the aircraft is used in lieu of farm implements or ground vehicles for the particular task accomplished. This includes fire fighting operations, the distribution of chemicals or seeds in agriculture, reforestation, or insect control.

AIR-TAXI: The classification of air carriers which transports persons, property, and mail using small aircraft (under 30 seats or a maximum payload capacity of less than 7,500 pounds). An air taxi does not hold a Certificate of Public Convenience and Necessity.

AVIATION GASOLINE (AVGAS): All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D 910. Includes all refinery products within the gasoline range that are to be marketed straight or in blends as aviation gasoline without further processing (i.e., any refinery operation except mechanical blending). Also includes finished components in the gasoline range which will be used for blending or compounding into aviation gasoline.

BUSINESS: Use of an aircraft not for compensation or hire by individuals for the purposes of transportation required by business in which they are engaged.

COMMUTER AIR CARRIER: An air-taxi that performs at least five scheduled round trips per week between two or more points or carries mail.

DEMAND AIR-TAXI: Use of an aircraft operating under Federal Aviation Regulations, Part 135, passenger and cargo operations, including charter and excluding commuter air carrier.

EXECUTIVE: Any use of an aircraft by a corporation, company, or other organization for the purposes of transporting its employees and/or property not for compensation or hire, and employing professional pilots for the operation of the aircraft.

GENERAL AVIATION: That portion of civil aviation which encompasses all facets of aviation except air carriers.

INSTRUCTIONAL: Any use of an aircraft for the purpose of formal instruction with the flying instructor aboard, or with the maneuvers on the particular flight(s) specified by the flight instructor; excludes proficiency flying.

PERSONAL: Any use of an aircraft for personal purposes not associated with a business or profession, and not for hire. This includes maintenance of pilot proficiency.

RENTAL: Aircraft owned for the purpose of renting; commercial flying club, leased, and rental aircraft activity.

OTHER: Any other use of an aircraft not included in above, i.e, experimentation, R&D, testing, demonstration, government.

OTHER WORK: Any aircraft used for construction work (not included under Part 135), helicopter, hoist, towing gliders, or parachuting.

BUS TERMINOLOGY

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).

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.

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.

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

REVENUE PASSENGER-MILES: One revenue passenger carried one mile (5,280 feet) generates one passenger-mile. The revenue passenger miles reported thus represent the total distance traveled by all bus passengers.

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

TAXES ASSIGNABLE TO OPERATIONS: Includes the amount of federal, state, county, municipal, and other taxing district taxes which relate to motor carrier operations and property use therein (except income taxes on ordinary income).

VEHICLE-MILE: One vehicle traveling one mile (5,280 feet) generates one vehicle-mile. Thus, total vehicle-miles is the total mileage traveled by all vehicles.

TRUCK TERMINOLOGY

AVERAGE LENGTH OF HAUL (MILES): The total number of ton-miles divided by the total number of tons carried.

COMBINATION TRUCKS: Consist of a power unit (a truck tractor) and one or two trailing units (a semi-trailer). The most frequently used combination is popularly referred to as a "tractor-semitrailer" or a "tractor trailer."

GROSS VEHICLE WEIGHT (GVW): The weight of the empty vehicle plus the maximum anticipated load weight.

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

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.

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

SINGLE-UNIT TRUCK: A motor vehicle consisting primarily of a single motorized device designed for carrying a load of property weighing 4,409 pounds or more on or in the device.

TON-MILES: The transportation of one short ton (2,000 lbs) of freight a distance of one mile (5,280 feet) generates one ton-mile.

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

LOCAL TRANSIT TERMINOLOGY

ACCIDENTS: Incidents in which there is property damage or personal injury, involving revenue or non-revenue transit vehicles or stations. Accidents are classified as "collision," "non-collision," or "station."

TON-MILE: Moving one ton one mile (5,280 feet) generates one ton-mile.

TONS OF FREIGHT HAULED: The figures for tons of freight hauled on domestic waterways include exports and imports.

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

RAILROAD TERMINOLOGY

AMTRAK (AMERICAN RAILROAD TRACKS): Operated by the National Railroad Passenger Corporation of Washington, D.C. This rail system was created by President Nixon in 1970 and was given the responsibility for the operation of intercity, as distinct from suburban, passenger trains between points designated by the Secretary of Transportation.

AVERAGE HAUL: The average distance in miles that one ton is 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.

AVERAGE PASSENGER TRIP LENGTH: Calculated by dividing the number of revenue passenger miles by the number of revenue passengers carried.

CAR-MILE: Movement of a car one mile (5,280 feet) is one car-mile.

CLASS I RAILROAD: A railroad with an annual operating revenue of greater than \$5,000,000. Effective January 1, 1976, the minimum annual operating revenue requirement was raised to \$10,000,000; on January 1, 1978, the requirement was raised to \$50,000,000.

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.

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.

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.

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

LOCOMOTIVE MILEAGE: Movement of a locomotive unit one mile (5,280 feet) is one locomotive-mile.

OPERATING EXPENSES: Expenses of furnishing transportation service, including maintenance and depreciation.

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.

PASSENGER REVENUE--COMMUTATION: Revenue from the sale of commutation tickets.

PASSENGER REVENUE--NON-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.

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.

RAIL MOTOR CARS: Self-propelled passenger rail cars which are driven by electric motors energized from an electrified roadway or by a generator driven by a diesel or gas turbine engine.

PETROLEUM: A material occurring naturally in the earth and predominantly composed of mixtures of chemical compounds of carbon and hydrogen with or without other nonmetallic elements such as sulfur, oxygen, nitrogen, etc. Petroleum may contain, or be composed of, such compounds in the gaseous, liquid, and/or solid state, depending on the nature of these compounds and the existent conditions of temperature and pressure.

PETROLEUM CONSUMPTION, ELECTRIC UTILITY SECTOR: Domestic demand for all fuel oils at electric utilities.

PETROLEUM CONSUMPTION, INDUSTRIAL SECTOR: Domestic demand for petroleum products for use by establishments engaged in processing unfinished materials into another form or product. Excludes industrial space heating.

PETROLEUM CONSUMPTION, "OTHER" SECTOR: Domestic demand for miscellaneous products and for some agricultural uses.

PETROLEUM CONSUMPTION, RESIDENTIAL AND COMMERCIAL: Domestic demand for petroleum products by private households and non-manufacturing establishments. Includes industrial space heating and road paving.

PETROLEUM CONSUMPTION, TRANSPORTATION SECTOR: Domestic demand for petroleum products for on-highway use, aircraft and vessel bunkering, and railroad use.

REFINED PRODUCT TRUNK LINES (PIPELINE SYSTEMS): One of three types of pipeline network that is used to transport refined petroleum products (i.e., gasoline, kerosene, residual oil, etc.) from the refineries to local distribution centers near large market areas.

RESIDUAL FUEL OIL: The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are boiled off in refinery operations. Included are products known as ASTM grade Nos. 5 and 6 oil, heavy diesel oil, Navy Special Fuel Oil, Bunker C oil, and acid sludge and pitch used as refinery fuels. Residual fuel oil is used for the production of electric power, for heating, and for various industrial purposes.

GAS PIPELINE TERMINOLOGY

GAS TRANSMISSION COMPANY: A company which obtains most of its gas operating revenues from the operation of a gas transmission pipeline and/or from main line sales to industrial customers.

DISTRIBUTION MAINS: Generally, mains which carry or control the supply of gas from the point of supply to the sales meters.

FIELD AND GATHERING PIPELINES: A network of pipelines transporting natural gas from individual wells to a compressor station, processing point, or main trunk pipeline.

LIQUID PETROLEUM GAS (LPG): Consists of propane and butane and is usually derived from natural gas. In locations where there is no natural gas and the gasoline consumption is low, naphtha is converted to LPG by catalytic reforming.

NATURAL GAS: A naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in porous geologic formations beneath the earth's surface, often in association with petroleum. The principal constituent is methane.

NATURAL GAS LIQUIDS: Those liquid hydrocarbon mixtures which are gaseous at reservoir temperatures and pressures but are recoverable by condensation or absorption. Natural gasoline and liquefied petroleum gas such as propane and butane are principal examples.

TRANSMISSION PIPELINE: Pipelines installed for the purpose of transmitting gas from a source of supply to one or more distribution centers, to one or more large-volume customers, or a pipeline installed to interconnect sources of supply.

JET FUEL: Includes both naphtha-type and kerosene-type jet fuel meeting standards for use in aircraft turbine engines or meeting ASTM Specification D1655. Although most jet fuel is used in aircraft, some is used for other purposes, such as fuel for turbines to produce electricity.

KEROSENE: A petroleum middle distillate having burning properties suitable for use as an illuminant when burned in wick lamps. Included are No. 1-K and No. 2-K recognized in ASTM Specification D3699 and grades of kerosene called range oil having properties similar to No. 1 fuel oil, and is used primarily in space heaters, cooking stoves, and water heaters.

LEASE CONDENSATE: A natural gas liquid recovered from gas-well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons. Generally, it is blended with crude oil for refining.

LIQUEFIED GASES: Propane, propylene, butane, butylene, ethane-propane mixtures, propane-butane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids. Excludes ethane and ethylene.

LUBRICANTS: Substances used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Lubricants include all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include bright stock lubricants, and other lubricants, lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

MARKETED PRODUCTION: This quantity is derived. It is gross withdrawals of natural gas from production reservoirs, less gas used for reservoir repressuring, quantities vented and flared, and nonhydrocarbon gases removed in treating and processing operations.

MOTOR GASOLINE, FINISHED: A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines and conforming to ASTM Specification D439. Included are finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

MOTOR GASOLINE, REGULAR GRADE: Finished motor gasoline (see above) that has an antiknock designation of 2 or less for unleaded motor gasoline and 3 or less for leaded motor gasoline.

NATURAL GAS: A naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in porous geologic formations beneath the earth's surface, often in association with petroleum. The principal constituent is methane.

NATURAL GAS LIQUIDS: Those liquid hydrocarbon mixtures which are gaseous at reservoir temperatures and pressures but are recoverable by condensation or absorption. Natural gasoline and liquefied petroleum gas such as propane and butane are principal examples.

NATURAL GAS, WET: Natural gas prior to the extraction of liquids and other miscellaneous products.

PETROLEUM: A generic term applied to oil and oil products in all forms, such as crude oil, lease condensate, unfinished oils, refined petroleum products, natural gas plant liquids, and nonhydrocarbon compounds blended into finished petroleum products.

PIPELINE: A line of pipe with pumping machinery and apparatus for conveying a liquid or gas.

PROVED RESERVES (ECONOMICALLY RECOVERABLE RESERVES): Those resources (coal, oil, natural gas) that have actually been discovered and can be produced under current economic and technological conditions.

PSI: Pounds per square inch.

REFINED PETROLEUM PRODUCTS: Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400° F. end-point, other oils over 400° F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

APPENDIX C

Index

Index (cont'd)

fuel,	
consumption and travel	106, 108, 109
efficiency	116, 117
gasoline, cost	115, 117
income, national	86, 87
injury severity	72
miles,	
passenger	7, 60, 61
vehicle	5, 58, 59
profile	22
sales,	
production and factory, U.S.	78
model year, market shares and sales-weighted fuel efficiency	118, 120
retail, U.S.	78, 79
vehicles,	
number of	8, 66
purchased	67
world production	80

Boating - *see inland waterways and water*

Buses - *see also motor vehicles*

employment	25, 92
energy,	
consumed in transportation	10
intensiveness	128, 129, 131
expenditures, personal consumption	82, 83
fares, passenger	54, 55
fatalities	9, 26, 75, 76
fuel, consumption and travel	106, 110
miles,	
passenger	6, 60, 61
vehicle	5, 58, 59
profile	25
revenues,	
operating	4, 56, 57
passenger	50, 51
sales, factory, U.S.	78
vehicles,	
number of	8, 66
purchased	67
world production	80

Cargo

miles, ton	7, 62, 63
performance indicators	43

Cars - *see automobiles and motor vehicles*

Casualties - *see accidents*

Coal - *see energy*

Coastal - *see water transport*

Consumer Price Index

revenues, passenger	50
---------------------------	----

Electricity - *see energy*

Employment

air	12, 92
automobile	22
bus	25
natural gas	41
oil	40
railroad	37, 39
transportation and related industries	92
truck	28
water	34

Index (cont'd)

distillate oil deliveries, by use	161
domestic supply and demand,	
kerosene-jet fuel	155
kerosene- and naphtha-jet fuel	156
naphtha-jet fuel	154
efficiency,	
passenger cars	116, 117
sales-weighted, domestic and imported automobiles	118, 120
sales-weighted, domestic and imported light trucks	119, 121
gasoline,	
cost	115
domestic demand	153
motor, domestic supply and demand	152
miles, gas utility	142
price,	
retail	113
trend of gasoline vs other consumer goods	115
residual oil deliveries, by use	160
 Gasoline - see fuel	
 General Aviation - see also air carriers	
energy,	
consumed in transportation	10
intensiveness	125, 131
fatalities	9, 75, 76
fuel,	
consumption	100
price, retail	113
miles,	
passenger	6, 60, 61
vehicle	5, 58, 59
profile	18
vehicles,	
number of	8, 66
purchased	67
 Gross National Product	
national transportation and economic trends	93
 Highway - see also automobiles, buses and trucks	
employment	92
energy, consumed in transportation	10
fatalities	9, 75, 76
fuel,	
price, retail	113
miles, intercity	64
profile	20
 Heavy Rail - see local transit	
 Inland Waterways - see also water	
inland water vessels, number of	66
miles,	
cargo ton	8, 62, 63
intercity	64
water profile	34
 International Comparisons	
arrivals between U.S. and foreign countries	69
crude oil imports/exports	162
departures between U.S. and foreign countries	70
tanker fleet, world,	
by flag	144, 145
by size	143
world production	80

Index (cont'd)

Pipeline

earnings, per full-time employee	88, 89
energy,	
consumed in transportation	10
shipments	140
employment	40, 92
fatalities	9, 75, 76
fuel, consumption	106
income, national	86, 87
miles,	
cargo ton	7, 62, 63
gas utility	142
intercity	64, 65
petroleum	141
natural gas profile	41
oil profile	40
revenues,	
freight	52, 53
operating	4, 56, 57
transportation,	
crude oil	136
crude petroleum and petroleum products, U.S.	138, 139
petroleum, refined	137
wages and salaries	88, 89, 90, 91

Price

gasoline	115
transportation,	
fuel, retail	113
sector and energy source	114
trend of gasoline vs other consumer goods	115

Producer Price Index

revenues, freight	52, 53
-------------------------	--------

Railroads - includes Class I - see also amtrak

earnings, per full-time employee	88, 89
employment	37, 39, 92
energy,	
consumed in transportation	10
intensiveness	129, 130, 131
expenditures, personal consumption	82, 83, 84, 85
fares, passenger	54, 55
fatalities	9, 75, 76
fuel,	
consumption	106
price, retail	113
income, national	86, 87
miles,	
cargo ton	7, 62, 63
intercity	64, 65
passenger	60, 61
profile	37
revenues,	
freight	52, 53
operating	4, 56, 57
passenger	4, 50, 51
transportation,	
crude oil	136
crude petroleum and petroleum products, U.S.	138, 139
petroleum, refined	137
vehicles,	
number of	8, 66
purchased	67
wages and salaries	88, 89, 90, 91

Index (cont'd)

Water - see also inland waterways

commodities carried, principal	135
employment	34, 92
energy,	
consumed in transportation	10
transported, foreign and domestic commerce	142
fatalities	9, 75, 76
fuel, consumption	106
income, national	86, 87
miles,	
cargo ton	62, 63
vehicles	5, 58, 59
profile	34
revenues,	
freight	52, 53
operating	4, 56, 57
transportation,	
crude oil	136
crude petroleum and petroleum products, U.S.	138, 139
petroleum, refined	137
vehicles,	
number of	8, 66
purchased	67
wages and salaries	88, 89, 90, 91

APPENDIX D

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