





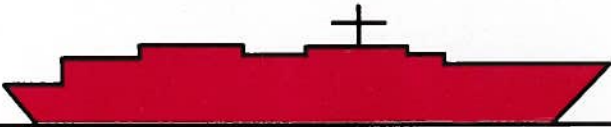



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

National Transportation Statistics

Annual Report

June 1985

| | |
|---|--|
| <ul style="list-style-type: none">★ Air Carrier★ General Aviation★ Modal Profiles★ Passenger Miles |  |
| <ul style="list-style-type: none">★ Truck ★ Highway★ Bus ★ Transportation Energy★ Cargo Operation★ Vehicle Miles |  |
| <ul style="list-style-type: none">★ Railroads★ Cost Data ★ Amtrak★ Operating Expenses / Revenue★ Local Transit |  |
| <ul style="list-style-type: none">★ Automobile★ Performance Indicators★ Economic Data★ Inventory |  |
| <ul style="list-style-type: none">★ Water Transit★ Recreational Boating★ Transportation Trends★ Safety Statistics |  |
| <ul style="list-style-type: none">★ Oil pipeline★ Natural Gas Pipeline★ Energy Cost and Consumption★ Pipeline Milage |  |



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

NATIONAL TRANSPORTATION STATISTICS

Annual Report, 1985

Secretary of Transportation

Elizabeth H. Dole

Research and Special Programs Administrator

M. Cynthia Douglass

Technical Report Documentation Page

| | | | | | |
|--|--|--|--|---|-----------|
| 1. Report No. DOT-TSC-RSPA-85-5 | | 2. Government Accession No. | | 3. Recipient's Catalog No. | |
| 4. Title and Subtitle NATIONAL TRANSPORTATION STATISTICS Annual Report, 1985 | | | | 5. Report Date June 1985 | |
| | | | | 6. Performing Organization Code TSC/DTS-32 | |
| 7. Author(s) Kathleen Bradley | | | | 8. Performing Organization Report No. DOT-TSC-RSPA-85-5 | |
| 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 | | | | 10. Work Unit No. (TRAIS) RS509/R5502 | |
| | | | | 11. Contract or Grant No. | |
| 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 | | | | 13. Type of Report and Period Covered Annual Report, 1955-1983 | |
| | | | | 14. Sponsoring Agency Code DMA-20 | |
| 15. Supplementary Notes | | | | | |
| 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. A supplementary section includes Transportation and the Economy and Energy in Transportation. Energy in Transportation is divided into four parts: Energy Consumption, Energy Intensiveness, Energy Transport, and Energy Supply and Demand. Also included are the operating costs of automobiles of different sizes. In this edition, the selected data cover the period 1973 through 1983/1984. | | | | | |
| 17. Key Words Statistics, Transportation Energy Cost, Inventory, Performance, Passenger Operation, Cargo Operation, Operating Expenses/Revenue, Employees, Number of Vehicles, Passenger Miles, Vehicle Miles | | | | 18. Distribution Statement For sale by the Superintendent of Documents U.S. Government Printing Office, Washington, D.C. 20402 | |
| 19. Security Classif. (of this report) Unclassified | | 20. Security Classif. (of this page) Unclassified | | 21. No. of Pages 235 | 22. Price |

TABLE OF CONTENTS

| | Page |
|--|------|
| INTRODUCTION | 1 |
| TREE DISPLAYS, 1983 | 3 |
| MODAL PROFILES | 13 |
| Modal Profile Source References and Percent Change Calculation | 13 |
| Air Carrier Profile | 14 |
| General Aviation Profile | 20 |
| Highway Profile | 22 |
| Automobile Profile | 23 |
| 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 |
| SUPPLEMENTARY DATA | 77 |
| Section I: Transportation and the Economy, 1973 - 1983 | 77 |
| Section II: Energy in Transportation | 93 |
| Part 1. Energy Consumption | 95 |
| Part 2. Energy Intensiveness | 127 |
| Part 3. Energy Transport | 137 |
| Part 4. Energy Supply and Demand | 151 |
| 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 |

Please complete the NTS survey located at the back of the book.

TABLES (cont'd)

| Table | Page |
|--|------|
| 42. Price Trend of Gasoline vs. Other Consumer Goods and Services, 1955-1983..... | 111 |
| 43. Average Fuel Efficiency of U.S. Passenger Cars, 1955-1983..... | 112 |
| 44. Model Year Sales, Market Shares, and Sales-Weighted Fuel Efficiencies of Domestic and Import Automobiles, Model Years 1978-1984..... | 114 |
| 45. Model Year Sales, Market Shares, and Sales-Weighted Fuel Efficiencies of Domestic and Import Light Trucks, Model Years 1978-1984..... | 115 |
| 46. Estimated Cost of Owning and Operating a Large Size 1984 Model Automobile, Including Fuel..... | 118 |
| 47. Estimated Cost of Owning and Operating an Intermediate Size 1984 Model Automobile, Including Fuel..... | 119 |
| 48. Estimated Cost of Owning and Operating a Compact Size 1984 Model Automobile, Including Fuel..... | 120 |
| 49. Estimated Cost of Owning and Operating a Subcompact Size 1984 Model Automobile, Including Fuel..... | 121 |
| 50. Estimated Cost of Owning and Operating a 1984 Model Passenger Van, Including Fuel..... | 122 |
| 51. Estimated Gasoline Cost per Mile at Various Gasoline Prices..... | 123 |
| 52. Estimated Cost of Owning and Operating 1984 Model Automobiles and Vans, Including Fuel..... | 125 |
| 53. Energy Intensiveness of Automobiles and Motorcycles, 1973-1983..... | 128 |
| 54. Energy Intensiveness of Trucks, 1973-1983..... | 129 |
| 55. Energy Intensiveness of Local Transit Buses and School Buses, 1973-1983..... | 130 |
| 56. Energy Intensiveness of Class I Intercity Buses, 1974-1983..... | 131 |
| 57. Energy Intensiveness of Class I Railroad Freight, 1973-1983..... | 131 |
| 58. Energy Intensiveness of Amtrak Service, 1973-1983..... | 132 |
| 59. Energy Intensiveness of Certificated Air Carriers, 1973-1983..... | 133 |
| 60. Energy Intensiveness of General Aviation, 1973-1983..... | 134 |
| 61. Energy Transported by Foreign and Domestic Waterborne Commerce, by Type of Traffic and Commodity, Calendar Year 1983..... | 138 |
| 62. Crude Oil Transported in the U.S. by Method of Transportation, 1973-1983..... | 140 |
| 63. Refined Petroleum Products Transported in the U.S., 1973-1983..... | 141 |
| 64. Crude Petroleum and Petroleum Products Transported in the U.S. by Method of Transportation, 1973-1983..... | 142 |
| 65. Pipeline Shipments of Energy, 1973-1983..... | 144 |
| 66. U.S. Petroleum Pipeline Mileage, 1956-1983..... | 145 |
| 67. U.S. Gas Utility Industry Miles of Pipeline and Main, by Type, 1955-1983..... | 146 |
| 68. World Tanker Fleet by Size, 1973-1983..... | 147 |
| 69. World Tanker Fleet by Flag, 1973-1983..... | 148 |
| 70. U.S. Tank Ship Fleet, 1955-1984..... | 150 |
| 71. Domestic Demand for Refined Petroleum Products Supplied to End-Use Sector (million barrels per day), 1955-1984..... | 152 |
| 72. Domestic Demand for Refined Petroleum Products Supplied to End-Use Sector (trillion Btu's per day), 1955-1984..... | 153 |
| 73. Petroleum Supply and Disposition, 1955-1984..... | 154 |
| 74. Domestic Supply and Disposition for Motor Gasoline, 1965-1984..... | 155 |
| 75. Domestic Demand for Gasoline, 1955-1983..... | 156 |
| 76. Domestic Supply and Demand for Naphtha Type Jet Fuel, 1965-1984..... | 157 |
| 77. Domestic Supply and Demand for Kerosene Type Jet Fuel, 1965-1984..... | 158 |

ILLUSTRATIONS (cont'd)

| Figure | | Page |
|--------|--|------|
| 30. | Fuel Economies of Domestic and Import Light Trucks by EPA Size Classification, 1978-1984 | 117 |
| 31. | Estimated Annual Automobile Gasoline and Oil Costs, Including Taxes, by Size and Year of Operation | 124 |
| 32. | Energy Intensiveness by Passenger Mode, 1973-1983 | 135 |
| 33. | Principal Commodities Carried by Water, Calendar Year 1983 | 139 |
| 34. | Crude Petroleum and Petroleum Products Transported in the U.S. by Modal Share, 1973-1983 | 143 |
| 35. | World Tanker Fleet by Flag, 1973-1983 | 149 |

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, two supplemental data sections detail the role of transportation in the economy and the relation of energy to transportation. Time series transportation statistics are presented for the period 1973-1983/1984. Energy consumption and supply-and-demand data cover the same period and extend back to 1955.

TREE DISPLAYS

Figure 1 illustrates the interrelations of the various modes via a tree display. This format presents 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".

**TREE DISPLAYS
1983**

Figure 2. Expenditures and Revenues (\$ millions) - 1983

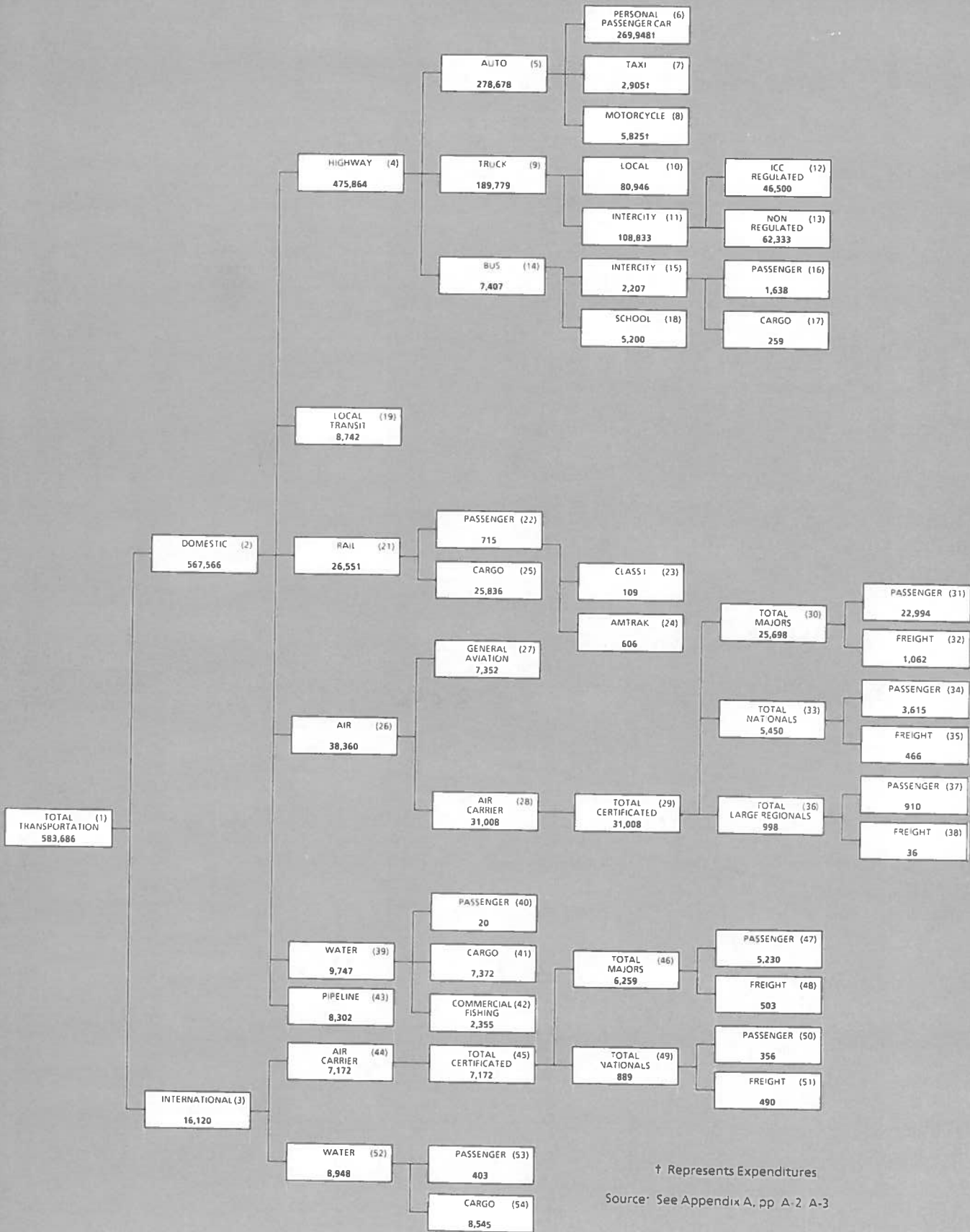


Figure 4. Passenger-Miles (millions) - 1983

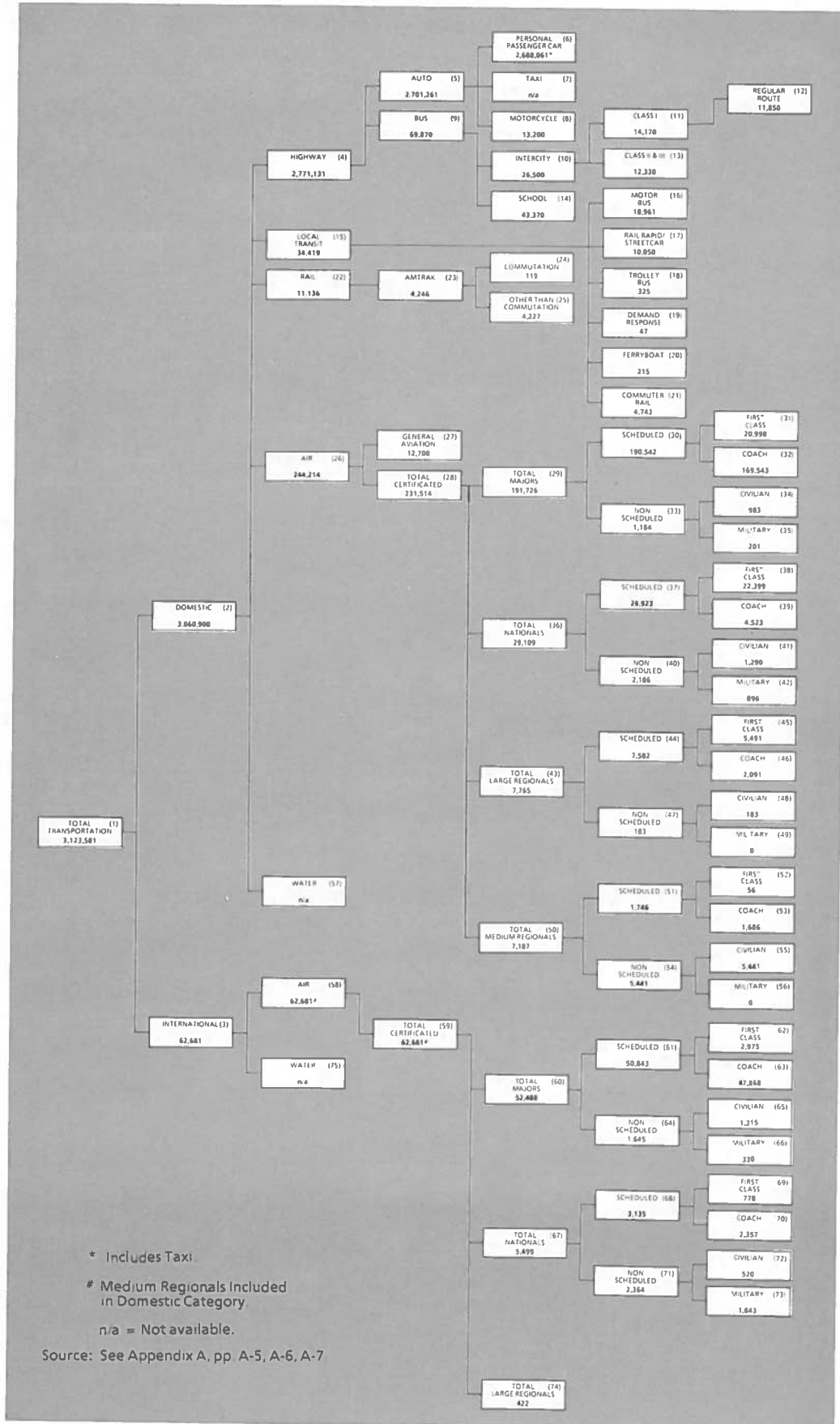


Figure 6. Number of Vehicles - 1983

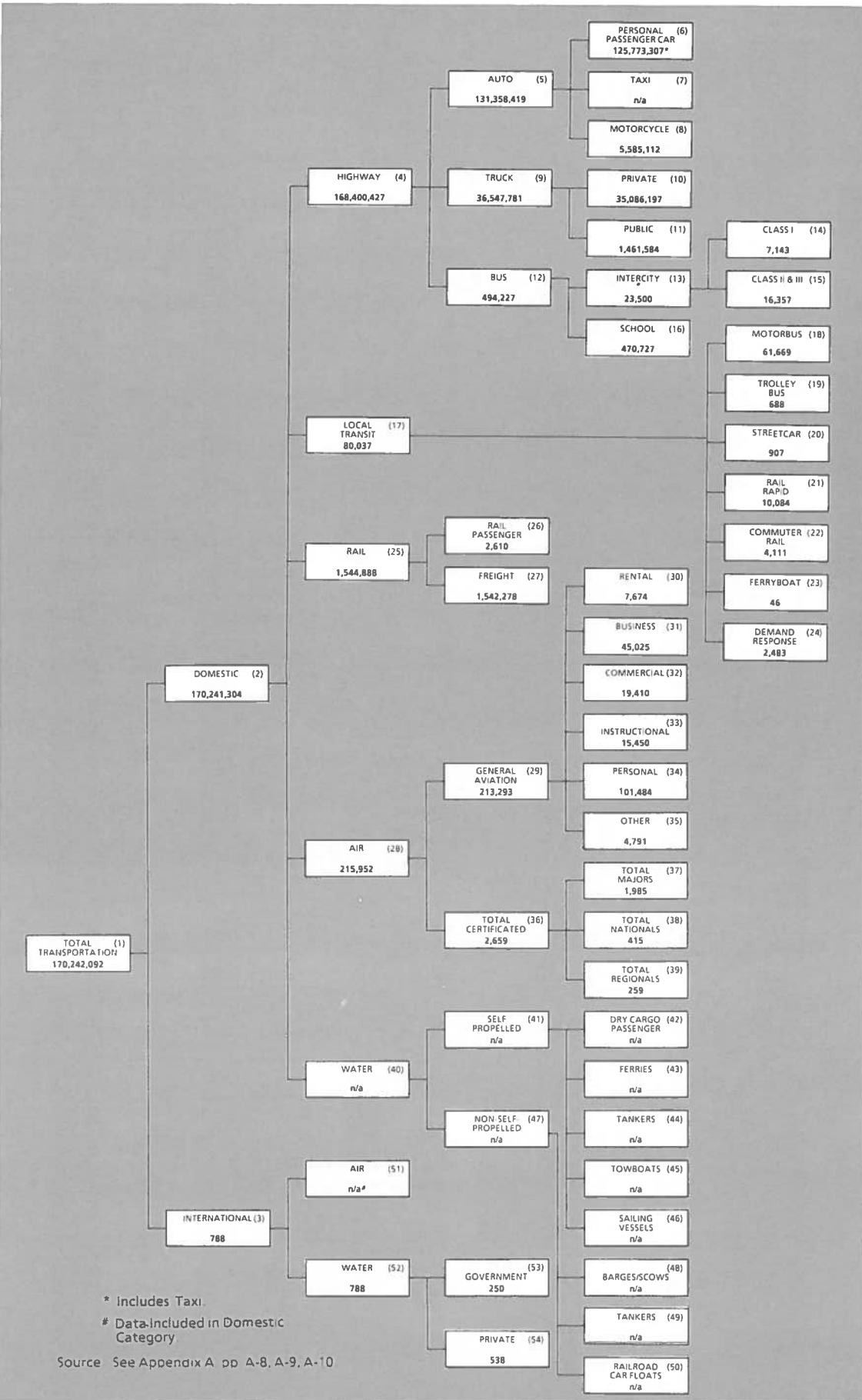
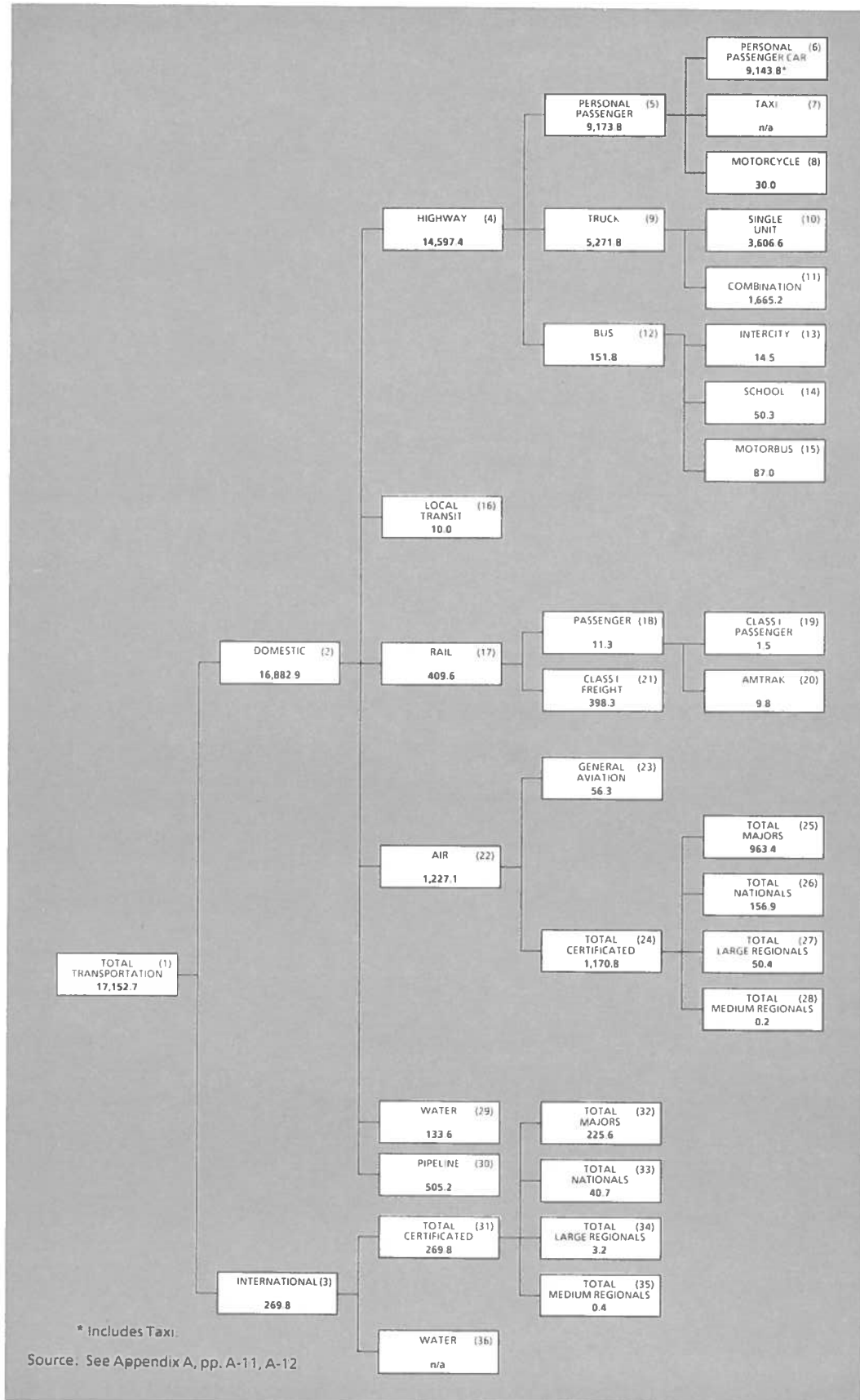


Figure 8. Energy Consumed in Transportation (figures in 10¹² BTU) - 1983



MODAL PROFILES 1973, 1982 and 1983

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.

Air Carrier Profile

For example:

1983

25,697.8^a

24,569.6

103.1

1,025.1

5,449.6^b

reference letter a
also applies to the three
subsequent data elements

reference letter b 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 1982-1983 percent change column refers to the usual percent difference between 1982 data and 1983 data. The 1973-1983 average annual percent change is equal to $C \times 100$, where C is obtained from the following relationship: $D^{83} = D^{73} (1 + C)^{10}$. (Note D^{73} and D^{83} refer to 1973 and 1983 data, respectively; C is the change; and the relationship is derived from the compound interest formula.)

AIR CARRIER PROFILE (cont'd)

| | <u>1973</u> | <u>1982¹</u> | <u>1983¹</u> | <u>1973-1983 Average Annual % Change</u> | <u>1982-1983 % Change</u> |
|------------------------------------|----------------------|-------------------------|-------------------------|--|-------------------------------|
| III. PERFORMANCE | | | | | |
| Aircraft Revenue-Miles (millions) | | | | | |
| Domestic | | | | | |
| Certificated, all services | 2,097.8 ^a | 2,442.3 ^j | 2,538.9 ^j | 1.9 | 4.0 |
| Scheduled services | 2,057.7 | 2,387.2 | 2,469.4 | 1.8 | 3.4 |
| Nonscheduled services | 40.1 | 55.1 | 69.5 | 5.7 | 26.1 |
| Majors, all services | 1,776.1 | 1,902.2 ^k | 1,964.4 ^k | 1.0 | 3.3 |
| Scheduled services | 1,743.4 | 1,893.7 | 1,956.1 | 1.2 | 3.3 |
| Nonscheduled services | 32.7 | 8.5 | 8.3 | -12.8 | -2.4 |
| Nationals, all services | 275.4 | 388.4 ^l | 404.0 ^l | 3.9 | 4.0 |
| Scheduled services | 270.7 | 368.7 | 379.3 | 3.4 | 2.9 |
| Nonscheduled services | 4.7 | 19.7 | 24.7 | 18.1 | 25.4 |
| Large Regionals, all services | n/a | 101.4 ^m | 140.4 ^m | - | 38.5 |
| Scheduled services | 46.3 | 82.0 | 116.0 | 9.6 | 41.5 |
| Nonscheduled services | n/a | 19.4 | 24.4 | - | 25.8 |
| International | | | | | |
| Certificated, all services | 457.9 | 362.2 ⁿ | 367.1 ⁿ | -2.2 | 1.4 |
| Scheduled services | 390.4 | 311.7 | 325.7 | -1.8 | 4.5 |
| Nonscheduled services | 67.5 | 50.5 | 41.4 | -4.8 | -18.0 |
| Majors, all services | 417.6 | 281.0 ^o | 288.6 ^o | -3.6 | 2.7 |
| Scheduled services | 361.5 | 275.1 | 282.4 | -2.4 | 2.7 |
| Nonscheduled services | 56.1 | 5.9 | 6.2 | -19.8 | 5.1 |
| Nationals, all services | n/a | 60.7 ^p | 46.7 ^p | - | -23.1 |
| Scheduled services | 40.3 | 32.5 | 35.3 | -1.3 | 8.6 |
| Nonscheduled services | n/a | 28.2 | 11.4 | - | -59.6 |
| Large Regionals, all services | n/a | 1.4 ^q | 2.5 ^q | - | 78.6 |
| Scheduled services | n/a | 0.0 | 1.0 | - | - |
| Nonscheduled services | n/a | 1.4 | 1.5 | - | 7.1 |
| Medium Regionals, all services | | | | | |
| Domestic and International* | n/a | 69.3 ^r | 59.7 ^r | - | -13.4 |
| Total Certificated* | 2,555.7 | 2,873.8 | 2,963.9 | 1.5 | 3.1 |
| Aircraft Revenue-Hours (thousands) | | | | | |
| Domestic | | | | | |
| Certificated, all services | 5,183.4 | 5,962.5 ^j | 6,140.9 ^j | 1.7 | 3.0 |
| Scheduled services | 5,087.9 | 5,807.9 | 5,953.5 | 1.6 | 2.5 |
| Nonscheduled services | 95.5 | 154.6 | 187.4 | 7.0 | 21.2 |
| Majors, all services | 4,082.7 | 4,406.0 ^k | 4,562.6 ^k | 1.1 | 3.6 |
| Scheduled services | 4,013.9 | 4,387.4 | 4,544.5 | 1.3 | 3.6 |
| Nonscheduled services | 68.8 | 18.6 | 18.1 | -12.5 | -2.7 |
| Nationals, all services | 947.9 | 1,013.9 ^l | 1,051.6 ^l | 1.0 | 3.7 |
| Scheduled services | 935.2 | 958.1 | 984.6 | 0.5 | 2.8 |
| Nonscheduled services | 12.7 | 55.8 | 67.0 | 18.1 | 20.1 |
| Large Regionals, all services | n/a | 313.7 ^m | 432.4 ^m | - | 37.8 |
| Scheduled services | 152.8 | 257.1 | 361.3 | 9.0 | 40.5 |
| Nonscheduled services | n/a | 56.6 | 71.1 | - | 25.6 |
| International | | | | | |
| Certificated, all services | 947.9 | 739.8 ⁿ | 750.1 ⁿ | -2.3 | 1.4 |
| Scheduled services | 811.5 | 632.3 | 663.2 | -2.0 | 4.9 |
| Nonscheduled services | 136.4 | 107.5 | 86.9 | -4.4 | -19.2 |
| Majors, all services | 865.0 | 566.8 ^o | 582.8 ^o | -3.9 | 3.4 |
| Scheduled services | 751.8 | 554.7 | 569.8 | -2.7 | 2.7 |
| Nonscheduled services | 113.2 | 12.2 | 13.0 | -19.5 | 6.6 |
| Nationals, all services | n/a | 123.3 ^p | 92.4 ^p | - | -25.1 |
| Scheduled services | 82.9 | 64.7 | 70.1 | -1.7 | 8.4 |
| Nonscheduled services | n/a | 58.6 | 22.3 | - | -62.0 |

AIR CARRIER PROFILE (cont'd)

| | <u>1973</u> | <u>1982¹</u> | <u>1983</u> | <u>1973-1983 Average Annual % Change</u> | <u>1982-1983 % Change</u> |
|--|-------------------|-------------------------|-----------------------|--|-------------------------------|
| Majors, all services | 21.0 ^a | 18.7 ^o | 20.9 ^o | -0.1 | 11.8 |
| Scheduled services | 18.9 | 18.2 | 20.3 | 0.7 | 11.5 |
| Nonscheduled services | 2.1 | 0.5 | 0.6 | -11.8 | 20.0 |
| Nationals, all services | n/a | 3.0 ^p | 1.9 ^p | - | -36.7 |
| Scheduled services | 0.2 | 1.5 | 1.2 | 19.6 | -20.0 |
| Nonscheduled services | n/a | 1.5 | 0.7 | - | -53.3 |
| Large Regionals, all services | n/a | 0.02 ^q | 0.15 ^q | - | 50.0 |
| Scheduled services | n/a | 0.0 | 0.1 | - | - |
| Nonscheduled services | n/a | 0.02 | 0.05 | - | 50.0 |
| Medium Regionals, all services | | | | | |
| Domestic and International* | n/a | 4.7 ^r | 4.2 ^r | - | -10.6 |
| Total Certificated* | 208.5 | 304.2 | 327.6 | 4.6 | 7.7 |
| Revenue Passenger Load Factor (%) | | | | | |
| Domestic | | | | | |
| Certificated, scheduled services | 51.6 | 58.5 ^j | 59.9 ⁱ | 1.5 | 2.4 |
| Majors, scheduled services | 51.9 | 58.6 ^k | 60.0 ^k | 1.5 | 2.4 |
| Nationals, scheduled services | 48.7 | 58.7 ^l | 58.2 ^l | 1.8 | -0.9 |
| Large Regionals, scheduled services | n/a | 54.9 ^m | 63.5 ^m | - | 15.7 |
| International | | | | | |
| Certificated, scheduled services | 54.1 | 61.4 ⁿ | 64.3 ⁿ | 1.7 | 4.7 |
| Majors, scheduled services | 54.1 | 60.7 ^o | 63.8 ^o | 1.7 | 5.1 |
| Nationals, scheduled services | n/a | 72.9 ^p | 71.3 ^p | - | -2.2 |
| Large Regionals, scheduled services | n/a | 0.0 | 85.7 ^q | - | - |
| Medium Regionals, all services | | | | | |
| Domestic and International* | n/a | 48.2 ^r | 65.0 ^r | - | 34.9 |
| U.S. International Passenger Travel | | | | | |
| Total Passenger-Arrivals (thousands) | | | | | |
| Flag of Carrier: | n/a | 20,216.0 ^s | 23,211.0 ^s | - | 14.8 |
| United States | n/a | 10,163.0 | 11,623.0 | - | 14.4 |
| Foreign | n/a | 10,054.0 | 11,588.0 | - | 15.3 |
| Total Passenger-Departures (thousands) | | | | | |
| Flag of Carrier: | n/a | 19,332.0 | 21,607.0 | - | 11.8 |
| United States | n/a | 9,485.0 | 10,531.0 | - | 11.0 |
| Foreign | n/a | 9,837.0 | 11,076.0 | - | 12.6 |
| Total Revenue Ton-Miles (millions) | | | | | |
| Domestic | | | | | |
| Certificated, all services | 16,707.0 | 25,838.7 ^j | 28,196.2 ^j | 5.4 | 9.1 |
| Scheduled services | 16,239.9 | 25,057.5 | 27,077.8 | 5.3 | 8.1 |
| Nonscheduled services | 467.1 | 781.2 | 1,118.4 | 9.1 | 43.2 |
| Majors, all services | 14,899.7 | 21,173.2 ^k | 22,490.8 ^k | 4.2 | 6.2 |
| Scheduled services | 14,497.8 | 21,045.6 | 22,371.0 | 4.4 | 6.3 |
| Nonscheduled services | 401.9 | 127.6 | 119.8 | -11.4 | -6.1 |
| Nationals, all services | 1,121.7 | 3,811.6 ^l | 4,215.3 ^l | 14.2 | 10.6 |
| Scheduled services | 1,097.4 | 3,481.9 | 3,710.9 | 13.0 | 6.6 |
| Nonscheduled services | 24.3 | 329.8 | 504.4 | 35.4 | 52.9 |
| Large Regionals, all services | 533.5 | 682.4 ^m | 1,153.5 ^m | 8.0 | 69.0 |
| Scheduled services | 496.4 | 445.3 | 862.5 | 5.7 | 93.7 |
| Nonscheduled services | 152.1 | 237.2 | 291.0 | 6.7 | 22.7 |
| International | | | | | |
| Certificated, all services | 7,220.6 | 9,212.2 ⁿ | 9,689.8 ⁿ | 3.0 | 5.2 |
| Scheduled services | 6,002.0 | 7,792.8 | 8,602.4 | 3.7 | 10.4 |
| Nonscheduled services | 1,218.6 | 1,419.4 | 1,087.4 | -1.1 | -23.4 |

AIR CARRIER PROFILE (cont'd)

| | <u>1973</u> | <u>1982¹</u> | <u>1983</u> | <u>1973-1983 Average Annual % Change</u> | <u>1982-1983 % Change</u> |
|---------------------------------------|--------------------|-------------------------|-------------------|--|-------------------------------|
| Fatal Air Carrier Accidents | | | | | |
| Operating under 14 CFR 121 | | | | | |
| All scheduled services | 8.0 ^t | 3.0 ^t | 4.0 ^t | -6.7 | 33.3 |
| Nonscheduled services | 0.0 | 0.0 ^x | 1.0 ^u | 0.0 | - |
| Operating under 14 CFR 135 | | | | | |
| All scheduled services | n/a | 5.0 ^t | 2.0 ^t | - | -60.0 |
| Nonscheduled (On-demand Air Taxis) | n/a | 31.0 | 28.0 | - | -9.7 |
| Total | 8.0* | 39.0* | 35.0* | 15.9 | -10.3 |
| Air Carrier Fatalities | | | | | |
| Operating under 14 CFR 121 | | | | | |
| All scheduled services | 221.0 ^t | 233.0 ^t | 15.0 ^t | -23.6 | -93.6 |
| Nonscheduled services | 0.0 | 0.0 ^x | 7.0 | 0.0 | - |
| Operating under 14 CFR 135 | | | | | |
| All scheduled services | n/a | 14.0 ^t | 11.0 ^t | - | -21.4 |
| Nonscheduled (On-demand Air Taxis) | n/a | 72.0 | 62.0 | - | -13.9 |
| Total | 138.0* | 319.0* | 95.0* | -3.7 | -70.2 |

n/a = not available.

+ not calculable.

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

Regionals includes both large and medium regionals.

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. Beginning in 1981, referred to as Form 41.

² Includes scheduled and nonscheduled (charter) operators. By Sec. 2 of the Airline Deregulation Act of 1978 Act "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, p. 13.

| <u>Source</u> | <u>Reference Number/Location</u> |
|---------------|--------------------------------------|
| a | 20) personal communication |
| b | 10) p. 3 |
| c | 10) p. 27 |
| d | 10) p. 46 |
| e | 10) p. 4 |
| f | 10) p. 28 |
| g | 10) p. 1 |
| h | 47) personal communication |
| j | 11) p. 2 |
| k | 11) p. 5 |
| l | 11) pp. 46, 47 |
| m | 11) pp. 83, 85 |
| n | 11) p. 3 |
| o | 11) p. 6 |
| p | 11) p. 48 |
| q | 11) pp. 84, 86 |
| r | 11) pp. 112, 113 |
| s | 43) Tables IIa and II d |
| t | 17) January 1985 |
| u | 17) January 1984 |
| x | 17) January 1983 |

GENERAL AVIATION PROFILE (cont'd)

In 1973, classified as 'Industrial Special.'

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

| <u>Source</u> | <u>Reference Number/Location</u> |
|---------------|--------------------------------------|
| a | 19) p. 5 |
| b | 21) p. 5 |
| c | 36) Table 8.1 |
| d | 37) Tables 2-4, 2-9 |
| e | 36) Table 8.6 |
| f | 36) Table 8.3 |
| g | 16) personal communication |
| h | 42) Charts 28, 29 |

AUTOMOBILE PROFILE

| | <u>1973</u> | <u>1982</u> | <u>1983</u> | <u>1973-1983 Average Annual % Change</u> | <u>1982-1983 % Change</u> |
|---|----------------------------|----------------------------|----------------------------|--|-------------------------------|
| I. FINANCIAL | | | | | |
| Auto Expenditures (\$ millions) | | | | | |
| New and used cars* | 41,243.0 ^a | 73,568.0 ^b | 88,275.0 ^b | 7.9 | 20.0 |
| Tires, tubes, accessories and parts | 8,939.0 | 21,166.0 | 22,836.0 | 9.8 | 7.9 |
| Gasoline and oil | 28,635.0 | 90,386.0 | 90,003.0 | 12.1 | -0.4 |
| Tolls | 803.0 | 1,100.0 | 1,136.0 | 3.5 | 3.3 |
| Insurance premiums less claims paid | 5,240.0 | 9,506.0 | 10,626.0 | 7.3 | 11.8 |
| Repair, greasing, washing, parking, storage, rental | 14,657.0 | 36,988.0 | 38,848.0 | 10.2 | 5.0 |
| Auto registration fees | 1,958.0 ^c | 3,332.0 ^c | 3,641.0 ^c | 6.4 | 9.3 |
| Driver's license fees | 249.0 | 434.0 | 461.0 | 6.4 | 6.2 |
| Total* | 101,724.0 | 238,846.0 | 255,826.0 | 9.7 | 7.1 |
| Taxi Expenditures (\$ millions) | 1,556.0 ^a | 3,103.0 ^b | 2,905.0 ^b | 6.4 | -6.4 |
| Business Auto Expenditures (\$ millions) | 11,619.0 ^d | 24,933.0 ^d | 31,030.0 ^d | 10.3 | 24.5 |
| Government Auto Expenditures (\$ millions) | 389.0 | 806.0 | 998.0 | 9.9 | 23.8 |
| Total Business/Government Expenditures* | 12,008.0 | 25,740.0 | 32,028.0 | 10.3 | 24.4 |
| II. INVENTORY | | | | | |
| Number of Vehicle Registrations | | | | | |
| Passenger cars and taxis | 101,188,735.0 ^e | 123,697,863.0 ^e | 125,773,307.0 ^e | 2.2 | 1.7 |
| Motorcycles | 4,332,580.0 | 5,743,463.0 | 5,585,112.0 | 2.6 | -2.8 |
| Motor vehicle licensed drivers (thousands) | 121,628,197.0 ^f | 150,310.0 ^f | 154,221.0 ^f | -48.7 | 2.6 |
| Number of Employees | | | | | |
| Taxis | 96,400.0 ^g | 42,200.0 ^g | 39,400.0 ^g | -8.6 | -6.6 |
| III. PERFORMANCE | | | | | |
| Vehicle Miles (millions) ¹ | | | | | |
| Rural** | | | | | |
| Interstate rural | 341,633.0 ^h | 100,303.0 ^h | 101,276.0 ^h | -11.5 | 10.0 |
| Other arterial rural*** | - | 186,894.0 | 188,238.0 | - | 0.7 |
| Other rural | 102,631.0 | 186,317.0 | 187,728.0 | 6.2 | 0.8 |
| All rural | 444,264.0 | 473,514.0 | 477,242.0 | 0.7 | 0.8 |
| Urban | | | | | |
| Interstate urban | n/a | 138,785.0 | 151,529.0 | - | 9.2 |
| Other urban ² | n/a | 579,324.0 | 605,075.0 | - | 4.5 |
| All urban | 592,191.0 | 718,109.0 | 756,604.0 | 2.5 | 5.4 |
| Total Rural and Urban | 1,036,455.0 | 1,191,623.0 | 1,233,846.0 | 1.8 | 3.5 |
| Vehicle Miles (millions) | | | | | |
| Motorcycles | 19,594.0 | 12,000.0 | 12,000.0 | -4.8 | 0.0 |
| Passenger cars and taxis | 1,016,861.0 | 1,179,623.0 | 1,221,846.0 | 1.9 | 3.6 |
| Total | 1,036,455.0 | 1,191,623.0 | 1,233,846.0 | 1.8 | 3.5 |
| Passenger-Miles (millions) | | | | | |
| Total travel, passenger cars and taxis ³ | 2,237,094.0 | 2,595,171.0 | 2,688,061.0 | 1.9 | 3.6 |
| Total travel, motorcycles ⁴ | 21,553.0 | 13,200.0 | 13,200.0 | -4.8 | 0.0 |
| Average Miles Traveled per Vehicle | | | | | |
| Motorcycles | 4,498.0 | 2,086.0 | 2,149.0 | -7.1 | 3.0 |
| Passenger cars and taxis | 9,992.0 | 9,533.0 | 9,641.0 | -0.4 | 1.1 |
| Total | 9,767.0 | 9,202.0 | 9,325.0 | -0.5 | 1.3 |
| Average Fuel Consumption per Vehicle (gallons) | | | | | |
| Motorcycle | 90.0 | 42.0 | 43.0 | -7.1 | 2.4 |
| Passenger cars and taxis | 763.0 | 587.0 | 577.0 | -2.8 | -1.7 |
| Total | 736.0 | 563.0 | 555.0 | -2.8 | -1.4 |

BUS PROFILE

| | <u>1973</u> | <u>1982</u> | <u>1983</u> | <u>1973-1983</u> | |
|---|------------------------|------------------------|------------------------|--|-------------------------------------|
| | | | | <u>Average</u> <u>Annual</u> <u>% Change</u> | <u>1982-1983</u> <u>% Change</u> |
| I. FINANCIAL | | | | | |
| Expenditures (\$ millions) | | | | | |
| School bus | 1,626.0 ^a | 4,976.0 ^b | 5,200.0 ^b | 12.3 | 4.5 |
| Operating Revenues (\$ millions) | | | | | |
| Intercity bus, total | 1,022.7 ^c | 2,103.1 ^d | 2,211.3 ^e | 8.0 | 5.1 |
| Intercity bus, Class I* | 814.6 | 1,439.0 | 1,276.5 ⁱ | 4.6 | -11.3 |
| Operating Expenses (\$ millions) | | | | | |
| Intercity bus, total | 937.9 | 2,044.3 | 2,167.1 | 8.7 | 6.0 |
| Intercity bus, Class I* | 738.0 | 1,409.8 | 1,283.2 | 5.7 | -9.0 |
| Taxes Assignable to Operations (\$ millions) ¹ | | | | | |
| Intercity bus, total | 89.6 | 127.3 | n/a | - | - |
| Intercity bus, Class I* | 69.8 | 91.3 | 88.5 ^d | 2.4 | -3.1 |
| II. INVENTORY | | | | | |
| Number of Operating Companies | | | | | |
| Intercity bus, total | 1,000.0 | 1,520.0 | 2,300.0 | 8.7 | 51.3 |
| Intercity bus, Class I* | 75.0 | 49.0 | 45.0 ⁱ | -5.0 | -8.2 |
| Number of Vehicles | | | | | |
| Intercity bus, total | 20,800.0 | 22,000.0 | 23,500.0 | 1.2 | 6.8 |
| School bus | 333,892.0 ^f | 442,133.0 ^f | 470,727.0 ^f | 2.9 | 6.5 |
| Intercity bus, Class I* | 9,300.0 | 7,680.0 ^d | 7,143.0 ⁱ | -2.6 | -7.0 |
| Number of Employees of Operating Companies | | | | | |
| Intercity bus, total | 48,400.0 | 49,500.0 | 50,000.0 ^e | 0.3 | 1.0 |
| Intercity bus, Class I* | 33,829.0 | 30,280.0 | 25,020.0 ⁱ | -3.0 | -17.4 |
| Miles of Highway Served | | | | | |
| Intercity bus, total | 270,000.0 | 270,000.0 | n/a | - | - |
| Intercity bus, Class I* | 198,000.0 | 187,000.0 | n/a | - | - |
| III. PERFORMANCE | | | | | |
| Vehicle Miles (millions)** | | | | | |
| Commercial bus | | | | | |
| Rural | | | | | |
| Interstate rural | n/a | 319.0 ^g | 322.0 ^g | - | 0.9 |
| Other arterial rural | n/a | 468.0 | 470.0 | - | 0.4 |
| Other rural | n/a | 461.0 | 461.0 | - | 0.0 |
| All rural | 1,003.0 ^g | 1,248.0 | 1,253.0 | 2.3 | 0.4 |
| Urban | | | | | |
| Interstate urban | n/a | 341.0 | 385.0 | - | 12.9 |
| Other urban | n/a | 1,988.0 | 2,016.0 | - | 1.4 |
| All urban ² | 1,545.0 | 2,329.0 | 2,401.0 | 4.5 | 3.1 |
| Total Rural and Urban | 2,548.0 | 3,577.0 | 3,648.0 | 3.7 | 2.0 |
| School bus and nonrevenue bus | | | | | |
| Rural | | | | | |
| Interstate rural | n/a | 181.0 | 184.0 | - | 1.7 |
| Other arterial rural | n/a | 617.0 | 617.0 | - | 0.0 |
| Other rural | n/a | 1,021.0 | 1,022.0 | - | 0.1 |
| All rural | 1,915.0 | 1,819.0 | 1,823.0 | -0.5 | 0.2 |
| Urban | | | | | |
| Interstate urban | n/a | 218.0 | 232.0 | - | 6.2 |
| Other urban | n/a | 1,025.0 | 1,037.0 | - | 1.2 |
| All urban ² | 497.0 | 1,243.0 | 1,269.0 | 9.8 | 2.1 |
| Total Rural and Urban | 2,412.0 | 3,062.0 | 3,098.0 | 2.5 | 1.2 |

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 no comparable 1973 data available.

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 revenue passengers carried.

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. 13, 14.

| <u>Source</u> | <u>Reference Number/Location</u> |
|---------------|--------------------------------------|
| a | 19) pp. 5, 15 |
| b | 21) p.5 |
| c | 1) pp. 2, 5 |
| d | 1) personal communication |
| e | 21) personal communication |
| f | 39) Table MV-10 |
| g | 39) Table VM-1 |
| h | 41) personal communication |
| i | 14) personal communication |

TRUCK PROFILE (cont'd)

| | <u>1973</u> | <u>1982</u> | <u>1983</u> | <u>1973-1983 Average Annual % Change</u> | <u>1982-1983 % Change</u> |
|---|------------------------|------------------------|------------------------|--|-------------------------------|
| Combination trucks | 46,716.0 | 50,075.0 | 52,424.0 | 1.2 | 4.7 |
| All trucks | 11,538.0 | 11,217.0 | 11,178.0 | -0.3 | -0.4 |
| Ton-Miles (millions) | | | | | |
| Intercity | 505,000.0 ^b | 520,000.0 ^b | 548,000.0 ^b | 0.8 | 5.4 |
| Average Fuel Consumption per Vehicle (gallons) | | | | | |
| Single | 1,025.0 ^h | 831.0 ^h | 818.0 ^h | -2.2 | -1.6 |
| Combination | 8,620.0 | 9,106.0 | 9,532.0 | 1.0 | 4.7 |
| All trucks | 1,361.0 | 1,122.0 | 1,118.0 | -2.0 | 0.4 |
| Taxes Assignable to Operations (\$ millions) | | | | | |
| State highway-user taxes | 4,568.2 ⁱ | 7,460.6 ⁱ | 8,046.0 ⁱ | 5.8 | 7.9 |
| Federal highway-user taxes | 2,533.4 | 3,335.6 | 3,218.8 | 2.4 | -3.5 |
| Total highway-user taxes | 7,101.5 | 10,796.2 | 11,264.8 | 4.7 | 4.3 |
| Average Length of Haul (statute miles) | | | | | |
| Class I Intercity motor carriers | | | | | |
| Common | 276.0 ^a | 359.9 ^j | 364.3 ^j | 2.8 | 1.4 |
| Total Fatalities, Motor Carriers of Property | 3,058.0 ^k | 2,479.0 ^l | 2,528.0 ^l | -1.9 | 2.0 |
| Private | n/a | 618.0 | 541.0 | - | -12.5 |
| Authorized | n/a | 1,712.0 | 1,851.0 | - | 8.1 |
| Exempt | n/a | 127.0 | 111.0 | - | -12.6 |
| Others | n/a | 22.0 | 25.0 | - | 13.6 |
| Total Accidents | 30,911.0 ^k | 31,759.0 | 31,628.0 | 0.2 | -0.4 |
| Private | n/a | 6,341.0 | 5,781.0 | - | -8.8 |
| Authorized | n/a | 24,493.0 | 24,849.0 | - | 1.5 |
| Exempt | n/a | 821.0 | 851.0 | - | 3.7 |
| Others | n/a | 104.0 | 147.0 | - | 41.4 |
| Total Injuries | 35,245.0 ^k | 25,779.0 | 26,692.0 | -2.7 | 3.5 |
| Private | n/a | 5,200.0 | 5,117.0 | - | -1.6 |
| Authorized | n/a | 19,869.0 | 20,754.0 | - | 4.5 |
| Exempt | n/a | 616.0 | 692.0 | - | 12.3 |
| Others | n/a | 94.0 | 129.0 | - | 37.2 |
| Property Damage (\$ millions) | n/a | 321.2 | 342.9 | - | 6.8 |
| Private | n/a | 73.1 | 68.0 | - | -7.0 |
| Authorized | n/a | 236.4 | 262.6 | - | 11.1 |
| Exempt | n/a | 10.0 | 10.3 | - | 3.0 |
| Others | n/a | 1.7 | 2.0 | - | 17.7 |
| Occupant Fatalities | | | | | |
| All trucks, total | 5,710.0 ^m | 6,568.0 ^m | 6,415.0 ^m | 1.2 | -2.3 |
| Light trucks | n/a | 5,590.0 | 5,395.0 | - | -3.5 |
| Medium trucks | n/a | 154.0 | 172.0 | - | 11.7 |
| Heavy trucks | n/a | 789.0 | 807.0 | - | 2.3 |
| Other | n/a | 35.0 | 41.0 | - | 17.1 |
| Fatalities in Vehicular Accidents ¹ | | | | | |
| All trucks, total | n/a | 16,257.0 | 15,343.0 | - | -5.6 |
| Light trucks | n/a | 10,991.0 | 10,602.0 | - | -3.5 |
| Medium trucks | n/a | 769.0 | 788.0 | - | 2.5 |
| Heavy trucks | n/a | 4,497.0 | 4,735.0 | - | 5.3 |
| Occupant Fatality Rate | | | | | |
| Per 100 million vehicle-miles | | | | | |
| Total trucks | 2.1 | 1.7 | 1.6 | -2.8 | -5.9 |
| Single-unit trucks | n/a | 0.1 | 0.1 | - | 20.0 |
| Combination trucks | n/a | 1.2 | 1.1 | - | -8.3 |
| Per 10,000 registered vehicles | | | | | |
| Total trucks | 2.5 | 1.9 | 1.8 | -3.2 | -5.3 |
| Single-unit trucks | n/a | 0.1 | 0.1 | - | 0.0 |
| Combination trucks | n/a | 6.0 | 6.0 | - | 0.0 |

LOCAL TRANSIT PROFILE[#]

| I. FINANCIAL | <u>1979¹</u> | <u>1981²</u> | <u>1983</u> | <u>1979-1983 Average Annual % Change</u> | <u>1981-1983 % Change</u> |
|--|-------------------------|-------------------------|----------------------|--|-------------------------------|
| Operating Revenues (\$ millions) | | | | | |
| Passenger Revenue | | | | | |
| Single mode motor bus properties | 533.4 ^a | 583.6 ^b | 460.9 ^c | -3.6 | -11.1 |
| All properties | 2,152.6 ^d | 2,975.6 ^e | 3,182.0 ^f | 10.3 | 3.4 |
| Federal Cash Grants and Reimbursements | | | | | |
| Single mode motor bus properties | 316.6 ^a | 294.1 ^b | 182.7 ^c | -12.8 | -21.2 |
| All properties | 1,177.3 ^d | 929.0 ^e | 891.7 ^f | -6.7 | -2.0 |
| Total Operating Revenues | | | | | |
| Single mode motor bus properties | 1,559.6 ^a | 1,547.9 ^b | 1,405.2 ^c | -2.6 | -4.7 |
| All properties | 5,771.0 ^d | 7,552.2 ^e | 8,741.7 ^f | 10.9 | 7.6 |
| Operating Expenses (\$ millions) | | | | | |
| All Systems | | | | | |
| Motor Bus | | | | | |
| Vehicle operations | 2,236.3 ^g | 2,886.6 ^h | 3,035.4 ⁱ | 7.9 | 2.6 |
| Vehicle maintenance | 771.4 | 1,018.8 | 1,153.4 | 10.6 | 6.4 |
| Other | 700.9 | 950.8 | 959.4 | 8.2 | 0.5 |
| Total expenses** | 3,708.6 | 4,851.4 | 5,242.5 | 9.0 | 4.0 |
| Rail Rapid | | | | | |
| Vehicle operations | 466.8 | 600.0 | 663.6 | 9.2 | 5.2 |
| Vehicle maintenance | 247.0 | 375.2 | 441.6 | 15.6 | 8.5 |
| Other | 792.1 | 979.2 | 1,127.6 | 9.2 | 7.3 |
| Total expenses** | 1,505.9 | 1,954.4 | 2,241.8 | 10.5 | 7.1 |
| Streetcar | | | | | |
| Vehicle operations | 36.2 | 40.3 | 47.0 | 6.7 | 8.0 |
| Vehicle maintenance | 24.5 | 29.7 | 30.3 | 5.5 | 1.0 |
| Other | 36.7 | 41.3 | 42.7 | 3.9 | 1.7 |
| Total expenses** | 97.4 | 111.2 | 119.9 | 5.3 | 3.8 |
| Trolley Bus | | | | | |
| Vehicle operations | 25.9 | 40.2 | 46.3 | 15.6 | 7.3 |
| Vehicle maintenance | 6.0 | 11.4 | 14.4 | 24.5 | 12.4 |
| Other | 9.9 | 14.6 | 19.7 | 18.8 | 16.2 |
| Total expenses** | 41.9 | 66.2 | 80.5 | 17.7 | 10.3 |
| Demand Response | | | | | |
| Vehicle operations | 15.0 | 31.1 | 38.0 | 26.2 | 10.5 |
| Vehicle maintenance | 3.7 | 8.0 | 10.0 | 28.2 | 11.8 |
| Other | 22.1 | 44.0 | 14.9 | -9.4 | -41.8 |
| Total expenses** | 40.7 | 83.1 | 125.6 | 32.5 | 22.9 |
| Ferryboat | | | | | |
| Vehicle operations | 4.4 | 6.0 | 49.8 | 83.4 | 188.1 |
| Vehicle maintenance | 1.9 | 2.0 | 13.4 | 63.0 | 158.8 |
| Other | 2.3 | 33.7 | 18.8 | 69.1 | -25.3 |
| Total expenses** | 8.5 | 41.7 | 85.5 | 78.1 | 43.2 |
| Commuter Rail | | | | | |
| Vehicle operations | n/a | n/a | 4.5 | - | - |
| Vehicle maintenance | n/a | n/a | 6.2 | - | - |
| Other | n/a | n/a | 132.6 | - | - |
| Total expenses** | n/a | n/a | 410.7 | - | - |
| Other | | | | | |
| Vehicle operations | 0.4 | 6.9 | 1.8 | 45.7 | -48.9 |
| Vehicle maintenance | 0.1 | 1.6 | 1.4 | 93.4 | -6.5 |
| Other | 58.3 | 5.5 | 2.1 | -56.4 | -38.2 |
| Total expenses** | 58.8 | 14.0 | 5.3 | -45.2 | -38.5 |
| Total All Modes | | | | | |
| Vehicle operations | 2,785.5 | 3,610.9 | 3,891.4 | 8.7 | 3.8 |
| Vehicle maintenance | 1,054.1 | 1,445.8 | 1,673.7 | 12.3 | 7.6 |
| Other | 1,622.1 | 2,065.4 | 2,318.1 | 9.3 | 5.9 |
| Total expenses** | 5,461.7 | 7,122.0 | 8,368.6 | 11.3 | 8.4 |

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.

Data for the period July 1, 1982 through June 30, 1983 was not available due to changes in Section 15 reporting procedures from fiscal year basis to calendar year basis. Beginning in 1983, data is reported on a calendar year basis.

¹ Data covers fiscal year between 7/01/79 and 6/30/80.

² Data covers fiscal year between 7/01/81 and 6/30/82.

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

| <u>Source</u> | <u>References</u> <u>Number/Location</u> | <u>Source</u> | <u>Reference</u> <u>Number/Location</u> |
|---------------|---|---------------|--|
| a | 44) Table 001.2.1 | j | 44) Table 001.17.1 |
| b | 45) Table 002.02.1 | k | 45) Table 002.17.1 |
| c | 46) Table 2.01.1 | l | 46) Table 2.14 |
| d | 44) Table 002.2.1 | m | 44) Table 001.14.1 |
| e | 45) Table 002.02.2 | n | 45) Table 002.14.1 |
| f | 46) Table 2.01.2 | o | 46) Table 2.12 |
| g | 44) Table 001.07.1 | p | 46) Table 3.14 |
| h | 45) Table 002.07.1 | q | 44) Tables 001.15.1 and 001.16.1 |
| i | 46) Table 2.06 | r | 45) Table 002.15.1 |
| | | s | 46) Table 2.13 |

WATER TRANSPORT PROFILE (cont'd)

| | <u>1973</u> | <u>1982</u> | <u>1983</u> | <u>1973-1983 Average Annual % Change</u> | <u>1982-1983 % Change</u> |
|---|------------------------|------------------------|------------------------|--|-------------------------------|
| III. PERFORMANCE | | | | | |
| Ton-Miles (millions) | | | | | |
| Domestic waterfreight | | | | | |
| Coastwise | 327,649.0 ⁱ | 632,707.0 ⁱ | 649,749.0 ⁱ | 7.1 | 2.7 |
| Internal | 171,891.0 | 217,027.0 | 225,628.0 | 2.8 | 4.0 |
| Lakewise | 83,765.0 | 35,623.0 | 43,088.0 | -6.4 | 21.0 |
| Local | 1,386.0 | 1,112.0 | 1,100.0 | -2.3 | -1.1 |
| Total | 584,691.0 | 886,469.0 | 919,566.0 | 4.6 | 3.7 |
| Tons of Freight Hauled (millions) | | | | | |
| Domestic water | | | | | |
| Coastwise | 237.0 | 314.0 | 313.0 | 2.8 | -0.3 |
| Internal | 503.0 | 509.0 | 487.0 | -0.3 | -4.3 |
| Lakewise | 157.0 | 76.0 | 83.0 | -6.2 | 9.2 |
| Local | 93.0 | 76.0 | 73.0 | -2.4 | -3.9 |
| Total | 990.0 | 974.0 | 957.0 | -0.3 | -1.7 |
| Exports | | | | | |
| Great Lakes ports* | 38.0 | 36.0 | 32.0 | -1.7 | -11.1 |
| Coastal ports | 462.0 | 367.0 | 331.0 | -3.3 | -9.8 |
| Total | 500.0 | 403.0 | 363.0 | -3.2 | -9.9 |
| Imports | | | | | |
| Great Lakes ports* | 28.0 | 14.0 | 16.0 | -5.4 | 14.3 |
| Coastal ports | 239.0 | 403.0 | 372.0 | 4.5 | -7.7 |
| Total | 267.0 | 417.0 | 388.0 | 3.8 | -7.0 |
| Tons of Freight, Intraterritorial (millions) | | | | | |
| | 4.0 | 3.0 | 3.0 | | 0.0 |
| Average Haul, Domestic System (miles-per-ton) | | | | | |
| Coastwise | 1,384.0 | 2,034.0 | 2,098.0 | 4.3 | 3.2 |
| Internal | 342.0 | 438.0 | 463.0 | 3.1 | 5.7 |
| Lakewise | 535.0 | 495.0 | 516.0 | -0.4 | 4.2 |
| Local | 15.0 | 15.0 | 15.0 | 0.0 | 0.0 |
| Total | 591.0 | 926.0 | 965.0 | 5.0 | 4.2 |
| Cargo Capacity (net tons) | | | | | |
| Total non-self-propelled vessels | | | | | |
| Dry cargo barges and scows | 28,751,428.0 | 49,062,247.0 | n/a | - | - |
| Tank barges | 21,342,522.0 | 38,031,076.0 | n/a | - | - |
| Total self-propelled vessels | 7,408,906.0 | 11,031,171.0 | n/a | - | - |
| Dry cargo/passenger | 17,305,547.0 | 26,277,603.0 | n/a | - | - |
| Tankers | 8,523,667.0 | 7,998,876.0 | n/a | - | - |
| Total | 8,781,880.0 | 18,278,727.0 | n/a | - | - |
| Total Number of Marine Accidents in Waterborne Transport ³ | | | | | |
| | 3,226.0 ⁿ | 3,174.0 ⁿ | 4,704.0 ⁿ | -3.8 | 48.2 |
| Total Number of Fatalities in Waterborne Transport ⁴ | | | | | |
| | 128.0 ^m | 221.0 ^m | n/a | - | - |
| Inspected, total | | | | | |
| Passenger and ferry, large and small | 19.0 | 160.0 | n/a | - | - |
| Freight | 5.0 | 38.0 | n/a | - | - |
| Tank ships and tank barges | 11.0 | 3.0 | n/a | - | - |
| Government owned vessels | 3.0 | 17.0 | n/a | - | - |
| MODU ⁵ | n/a | n/a | n/a | - | - |
| Miscellaneous | n/a | 85.0 | n/a | - | - |
| Total | 0.0 | 17.0 | n/a | - | - |
| Uninspected, total | | | | | |
| Commercial fishing | 112.0 | 61.0 | n/a | - | - |
| Tugs | 63.0 | 34.0 | n/a | - | - |
| Foreign | 11.0 | 9.0 | n/a | - | - |
| Miscellaneous | 2.0 | 25.0 | n/a | - | - |
| Total | 36.0 | 18.0 | n/a | - | - |

RAIL PROFILE

A. CLASS I RAILROADS

| | <u>1973</u> | <u>1982</u> | <u>1983</u> | 1973-1983 Average Annual % Change | 1982-1983 % Change |
|--|------------------------|------------------------|------------------------|--|-----------------------|
| I. FINANCIAL | | | | | |
| Operating Revenues, Class I Line-Haul Railroads (\$ millions) | | | | | |
| Passenger | 258.5 ^a | 572.9 ^a | 108.7 ^a | -8.3 | -81.0 |
| Freight | 13,770.7 | 25,627.4 | 25,835.5 | 6.4 | 0.8 |
| Other | 655.3 | 1,303.2 | 893.9 | 3.2 | -31.4 |
| Total Operating Revenues | 14,770.1 | 27,503.5 | 26,729.4 | 6.1 | -2.8 |
| Operating Expenses, Class I Line-Haul Railroads ² (\$ millions) | 13,844.8 | 26,490.3 | 24,106.3 | .3 | .3 |
| II. INVENTORY | | | | | |
| Number of Vehicles, Class I Railroads | | | | | |
| Freight-carrying cars ⁴ | 1,710,659.0 | 1,587,537.0 | 1,542,278.0 | -1.0 | -2.9 |
| Passenger train cars ¹ | 7,189.0 | 3,737.0 | 2,610.0 | -9.6 | -30.2 |
| Locomotives | 27,790.0 | 27,073.0 | 25,838.0 | -0.7 | -4.6 |
| Number of Companies, Class I Railroads | 67.0 ^b | 33.0 ^b | 31.0 ^b | -8.0 | -12.1 |
| Number of Employees, Class I Railroads ¹ | 520,153.0 ^a | 378,906.0 ^a | 322,030.0 ^a | -4.7 | -15.0 |
| Line Mileage, Class I Line-Haul Railroads | 192,813.0 | 159,123.0 | 155,879.0 ^g | -2.1 | -2.0 |
| III. PERFORMANCE | | | | | |
| Car Mileage, Class I Railroads (millions) | | | | | |
| Freight | 31,248.0 | 23,952.0 | 24,358.0 ^a | -2.5 | 1.7 |
| Passenger | 104.0 | 58.7 | 19.4 ^g | -15.5 | -67.0 |
| Motorcar | 91.5 | n/a | n/a | - | - |
| Total | 31,911.0 | 24,360.3 | 24,377.4 ^a | -2.7 | 0.1 |
| Train Mileage, Class I Railroads (millions) | | | | | |
| Freight | 469.0 | 344.9 | 345.9 | -3.0 | 0.3 |
| Passenger | 33.0 | 27.6 | n/a | - | - |
| Total | 502.0 | 372.5 | n/a | - | - |
| Locomotive Mileage, Class I Railroads (millions) | | | | | |
| Freight* | 1,659.0 | 1,252.0 ^g | 1,242.0 ^g | -2.9 | -0.8 |
| Passenger* | 21.4 | 13.1 ^a | n/a | - | - |
| Total | 1,680.2 | 1,265.0 | n/a | - | - |
| Revenue Passengers Carried, Class I Railroads (millions) | | | | | |
| Commutation | 185.9 ^d | 214.0 ^d | 216.1 ^d | 1.5 | 1.0 |
| Other than Commutation ¹ | 68.6 | 87.7 | 88.0 | 2.5 | 0.3 |
| Total ¹ | 254.5 | 301.7 | 304.1 | 1.8 | 0.8 |
| Revenue Passenger Miles, Class I Railroads (millions) | | | | | |
| Commutation | 4,245.0 | 5,145.0 | 5,238.0 | 2.1 | 1.8 |
| Other than Commutation ¹ | 5,049.0 | 5,795.0 | 5,898.0 | 1.6 | 1.8 |
| Total ¹ | 9,294.0 | 10,940.0 | 11,136.0 | 1.8 | 1.8 |

RAIL PROFILE
B. AMTRAK

| | <u>1973</u> | <u>1982</u> | <u>1983</u> | 1973-1983 Average Annual % Change | 1982-1983 % Change |
|---------------------------------------|----------------------------|------------------------|------------------------|--|-------------------------------|
| I. FINANCIAL | | | | | |
| Operating Revenues (\$ thousands) | | | | | |
| Passenger | 167,314,347.0 ^a | 406,782.0 ^a | 450,333.0 ^b | -44.7 | 10.7 |
| Other | 34,779.0 | 107,601.0 | 155,156.0 ^c | 16.1 | 44.2 |
| Total Operating Revenues | 202,093.0 | 514,383.0 ^b | 605,489.0 ^b | 11.6 | 17.7 |
| Operating Expenses | 327,091.0 | 1,133,353.0 | 1,303,128.0 | 14.8 | 15.0 |
| II. INVENTORY | | | | | |
| Number of Vehicles | | | | | |
| Passenger Train Cars | 1,777.0 ^a | 1,929.0 | 1,880.0 | 0.6 | -2.5 |
| Locomotives | 352.0 | 396.0 | 388.0 | 1.0 | -2.0 |
| Number of Companies | 1.0 | 1.0 ^a | 1.0 ^a | 0.0 | 0.0 |
| Number of Employees | 3,501.0 | 18,101.0 | 20,384.0 ^d | 19.3 | 12.6 |
| Line Mileage | 22,000.0 | 23,594.0 ^b | 23,159.0 ^b | 0.5 | -1.8 |
| III. PERFORMANCE | | | | | |
| Car Mileage (millions) | | | | | |
| Passenger | 240.0 ^a | 217.0 | 224.0 | -0.7 | 3.2 |
| Train Mileage (millions) | | | | | |
| Passenger | 27.0 | 29.0 | 29.0 | 0.7 | 0.0 |
| Locomotive Mileage (millions) | | | | | |
| Passenger | 54.0 | 38.0 ^a | 41.0 ^d | -2.7 | 7.9 |
| Revenue Passengers Carried (millions) | | | | | |
| Non-commutation | 17.0 ^e | 18.0 ^b | 19.0 ^b | 1.1 | 5.6 |
| Revenue Passenger Miles (millions) | | | | | |
| Non-commutation | 3,807.0 ^f | 3,993.0 | 4,227.0 | 1.1 | 5.9 |
| Average Passenger Trip Length (miles) | | | | | |
| Non-commutation | 263.8 ^a | 220.0 | 223.0 | -1.7 | 1.4 |

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

| <u>Source</u> | <u>Reference Number/Location</u> |
|---------------|--------------------------------------|
| a | 8) p. 16 |
| b | 6) p. 61 |
| c | 6) personal communication |
| d | 5) personal communication |
| e | 21) p. 36 |
| f | 21) p. 35 |

NATURAL GAS PIPELINE PROFILE

| | <u>1973</u> | <u>1982</u> | <u>1983</u> | <u>1973-1983 Average Annual % Change</u> | <u>1982-1983 % Change</u> |
|--|---------------------------|---------------------------|---------------------------|--|-------------------------------|
| I. FINANCIAL¹ | | | | | |
| Transmission Companies | | | | | |
| Operating Revenues (\$ millions) | | | | | |
| Total Operating Revenues | 7,712.0 ^a | 55,847.0 ^b | 53,577.0 ^o | 21.4 | -4.1 |
| Operating Expenses (\$ millions) | | | | | |
| Operating expenses | 5,147.0 | 49,313.0 | 46,496.0 | 24.6 | -5.7 |
| Maintenance expenses | 141.0 | 524.0 | 523.0 | 14.0 | -0.2 |
| Total Operating and Maintenance Expenses | 5,288.0 | 49,837.0 | 47,019.0 | 24.4 | -5.7 |
| Taxes | | | | | |
| Federal taxes* | 460.0 | 1,456.0 | 1,636.0 | 13.5 | 12.4 |
| State and local taxes* | 214.0 | 439.0 | 546.0 | 9.8 | 24.4 |
| Total taxes | 674.0 | 1,895.0 | 2,182.0 | 12.5 | 15.1 |
| Total Operating Expenses | 6,611.0 | 53,321.0 | 50,784.0 | 22.6 | -4.8 |
| Distribution Companies | | | | | |
| Operating Revenues (\$ millions) | | | | | |
| Total Operating Revenues | 4,243.0 ^c | 14,653.0 ^d | 16,743.0 ^d | 14.7 | 14.3 |
| Operating Expenses (\$ millions) | | | | | |
| Operating expenses | 2,965.0 | 12,523.0 | 14,064.0 | 16.8 | 12.3 |
| Maintenance expenses | 131.0 | 217.0 | 271.0 | 7.5 | 24.9 |
| Total Operating and Maintenance Expenses | 3,096.0 | 12,740.0 | 14,335.0 | 16.6 | 12.5 |
| Taxes | | | | | |
| Federal taxes* | 180.0 | 286.0 | 417.0 | 8.8 | 45.8 |
| State and local taxes* | 345.0 | 657.0 | 818.0 | 9.0 | 24.5 |
| Total taxes | 515.0 | 943.0 | 1,235.0 | 9.1 | 30.9 |
| Total Operating Expenses | 3,811.0 | 13,997.0 | 15,942.0 | 15.4 | 13.9 |
| II. INVENTORY | | | | | |
| Transmission Companies | | | | | |
| Number of Employees | 36,200.0 ^e | 48,400.0 ^f | 46,800.0 ^f | 2.6 | -3.3 |
| Miles of Transmission Pipeline | 263,100.0 ^g | 271,700.0 ^g | 273,500.0 ^g | 0.4 | 0.7 |
| Distribution Pipeline Companies | | | | | |
| Number of Employees | 53,500.0 ^e | 41,700.0 ^f | 45,800.0 ^f | -1.5 | 9.8 |
| Miles of Distribution Pipeline | 633,800.0 ^g | 721,200.0 ^g | 729,700.0 ^g | 1.4 | 1.2 |
| Number of Interstate Natural Gas Pipeline Companies | 80.0 ^h | 97.0 ^h | 102.0 ^h | 2.5 | 5.2 |
| III. PERFORMANCE | | | | | |
| Total Marketed Production (million cubic feet) | 22,647,549.0 ⁱ | 18,519,675.0 ⁱ | 16,822,144.0 ⁱ | -2.9 | -9.2 |
| Total Delivered to Consumers (million cubic feet) | 19,825,271.0 ^j | 16,295,245.0 ^j | 15,366,621.0 ^j | -2.5 | -5.7 |
| Total Consumed (million cubic feet) | 22,049,363.0 | 18,001,055.0 | 16,834,914.0 | -2.7 | -6.5 |
| Total Gas Used as a Pipeline Fuel (million cubic feet) | 728,177.0 | 596,411.0 | 490,042.0 | -3.9 | -17.8 |
| Total Fatalities* | 42.0 ^k | 31.0 ^k | 18.0 ^k | -8.1 | -42.0 |
| Gas Pipeline | 35.0 | 31.0 | 12.0 | -10.2 | -61.3 |
| Liquid Pipeline | 7.0 | 0.0 | 6.0 | -1.5 | 0.0 |

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

¹ Data for 1982 not directly comparable to previous years due to reclassification of several companies.

**SELECTED PASSENGER
AND CARGO PERFORMANCE
INDICATORS BY MODE
1973, 1982 and 1983**

**SELECTED PASSENGER AND CARGO PERFORMANCE
INDICATORS BY MODE, 1973, 1982 and 1983 (cont'd)**

| | <u>1979</u> | <u>1981</u> | <u>1983</u> |
|--|-------------|-------------|-------------|
| LOCAL TRANSIT | | | |
| Total vehicle operating expenses (dollars) per vehicle-mile | | | |
| Motorbus | 2.8 | 3.5 | 3.8 |
| Rail rapid/Streetcar | 21.7 | 25.4 | 32.5 |
| Trolley bus | 3.5 | 4.8 | 5.6 |
| Demand response | n/a | 2.0 | 4.1 |
| Ferryboat | 58.7 | 152.1 | 94.0 |
| Total annual passenger-miles per vehicle (thousands) | | | |
| Motorbus | 364.2 | 341.1 | 341.1 |
| Rail rapid/Streetcar | 338.3 | 837.6 | 914.4 |
| Trolley bus | 303.3 | 327.5 | 471.8 |
| Demand response | n/a | 35.8 | 19.1 |
| Ferryboat | 1.6 | 7.0 | 4.8 |
| Commuter Rail | n/a | n/a | 1.2 |
| Total Revenue vehicle-miles per vehicle | | | |
| Motorbus | 27.1 | 24.7 | 22.3 |
| Rail rapid/Streetcar | 7.1 | 7.6 | 6.6 |
| Trolley bus | 16.8 | 17.6 | 21.0 |
| Demand response | n/a | 21.5 | 12.2 |
| Ferryboat | 14.5 | 17.1 | 19.8 |
| Commuter Rail | n/a | n/a | 6.2 |
| | <u>1973</u> | <u>1982</u> | <u>1983</u> |
| WATER TRANSIT | | | |
| Ton-miles per capita, domestic water | | | |
| Coastwise | 1,550.2 | 2,729.7 | 2,776.9 |
| Internal | 813.3 | 936.3 | 964.3 |
| Lakewise | 396.3 | 153.7 | 184.2 |
| Local | 6.6 | 4.8 | 4.7 |
| Total | 2,766.4 | 3,824.5 | 3,930.0 |
| Tons of freight hauled per capita, domestic water | | | |
| Coastwise | 1.1 | 1.4 | 1.3 |
| Internal | 2.4 | 2.2 | 2.0 |
| Lakewise | 0.7 | 0.3 | 0.3 |
| Local | 0.4 | 0.3 | 0.3 |
| Total | 4.7 | 4.2 | 4.1 |
| CLASS I RAILROADS | | | |
| Revenue passenger-miles per capita | | | |
| Commutation | 20.1 | 22.2 | 22.4 |
| Other | 23.9 | 25.0 | 25.2 |
| Total | 44.0 | 47.2 | 47.6 |

TRANSPORTATION TRENDS 1973 - 1983

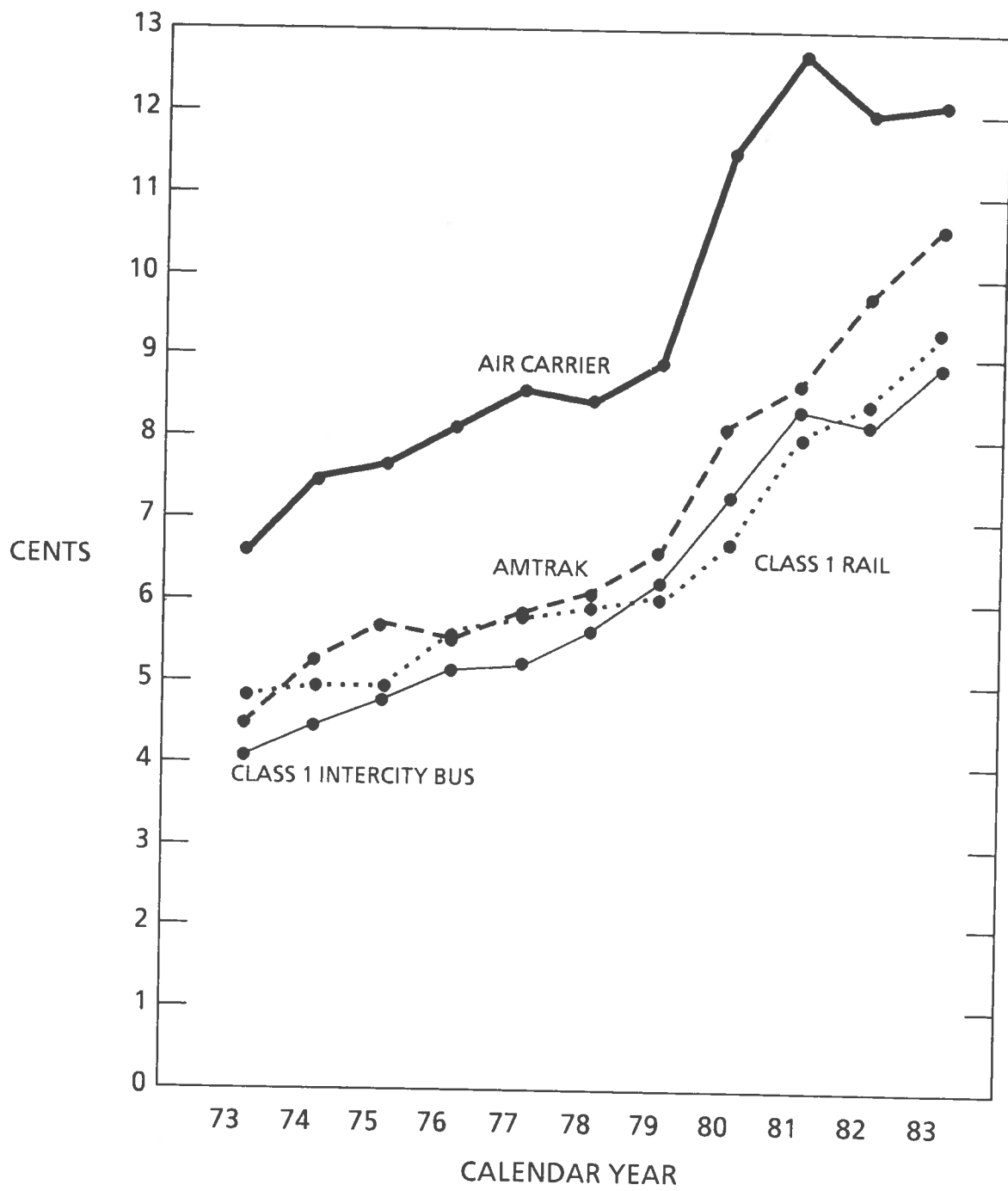


Figure 9. Average Passenger Revenue per Passenger-Mile, 1973-1983

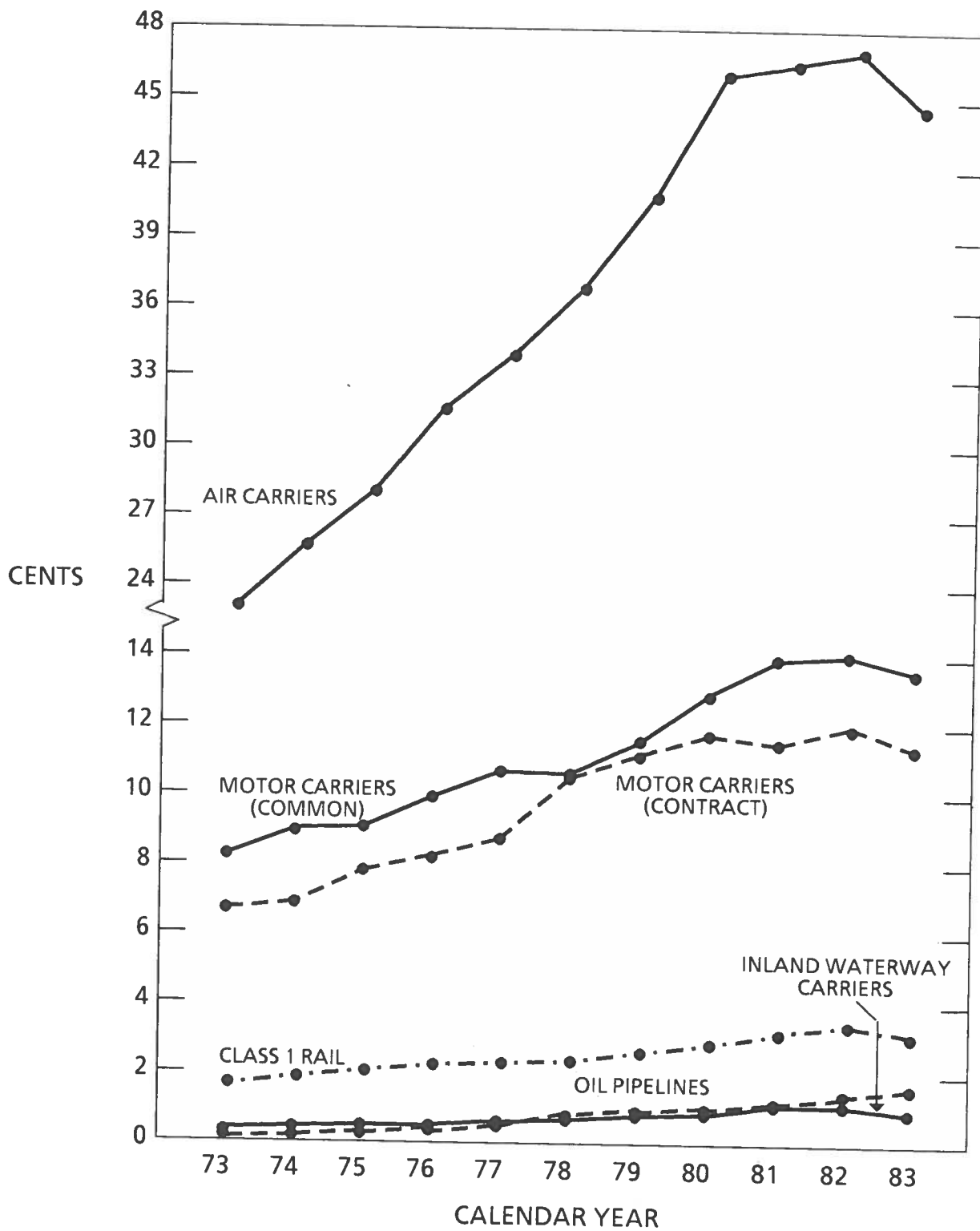


Figure 10. Average Freight Revenue per Ton-Mile, 1973-1983

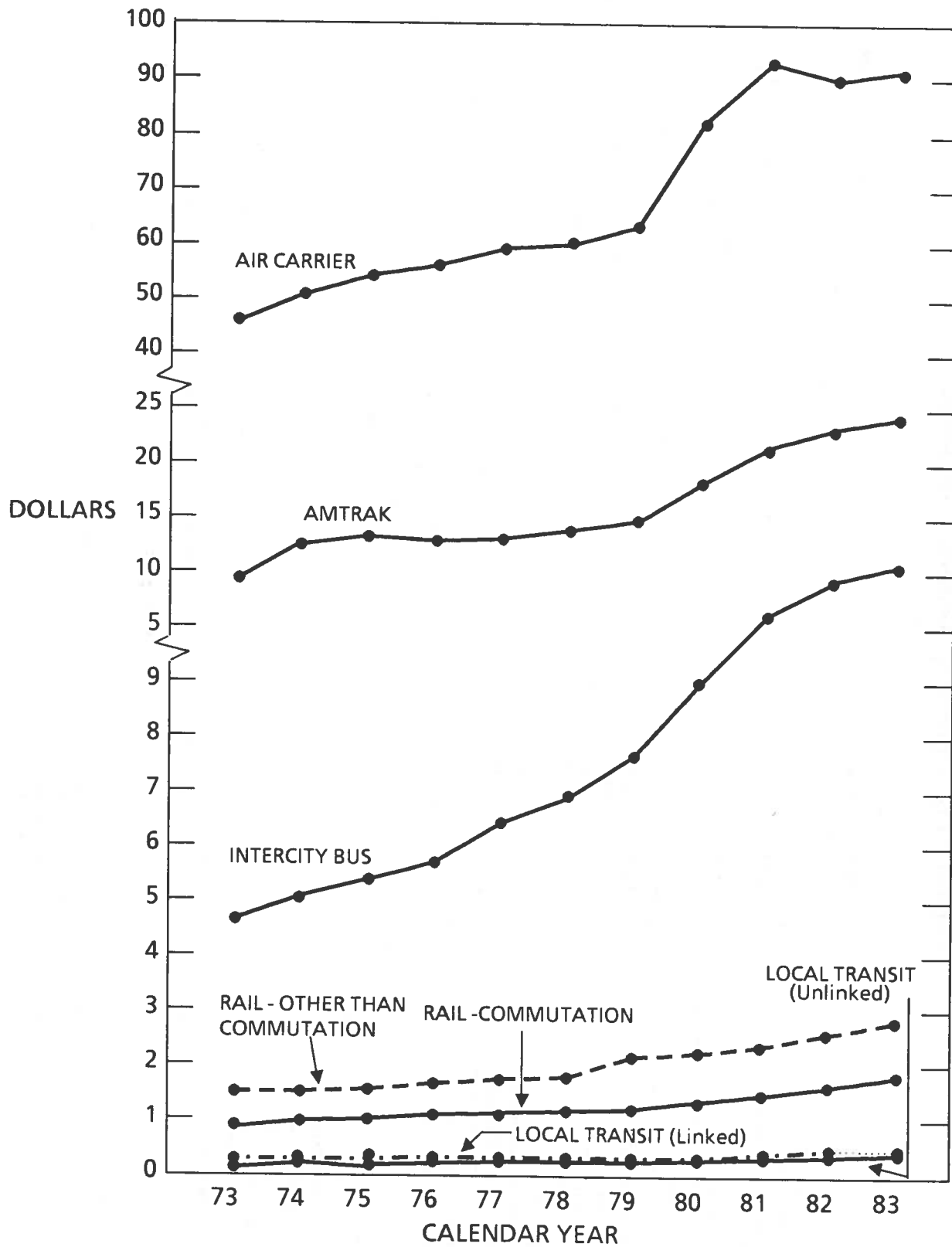


Figure 11. Average Passenger Fare, 1973-1983

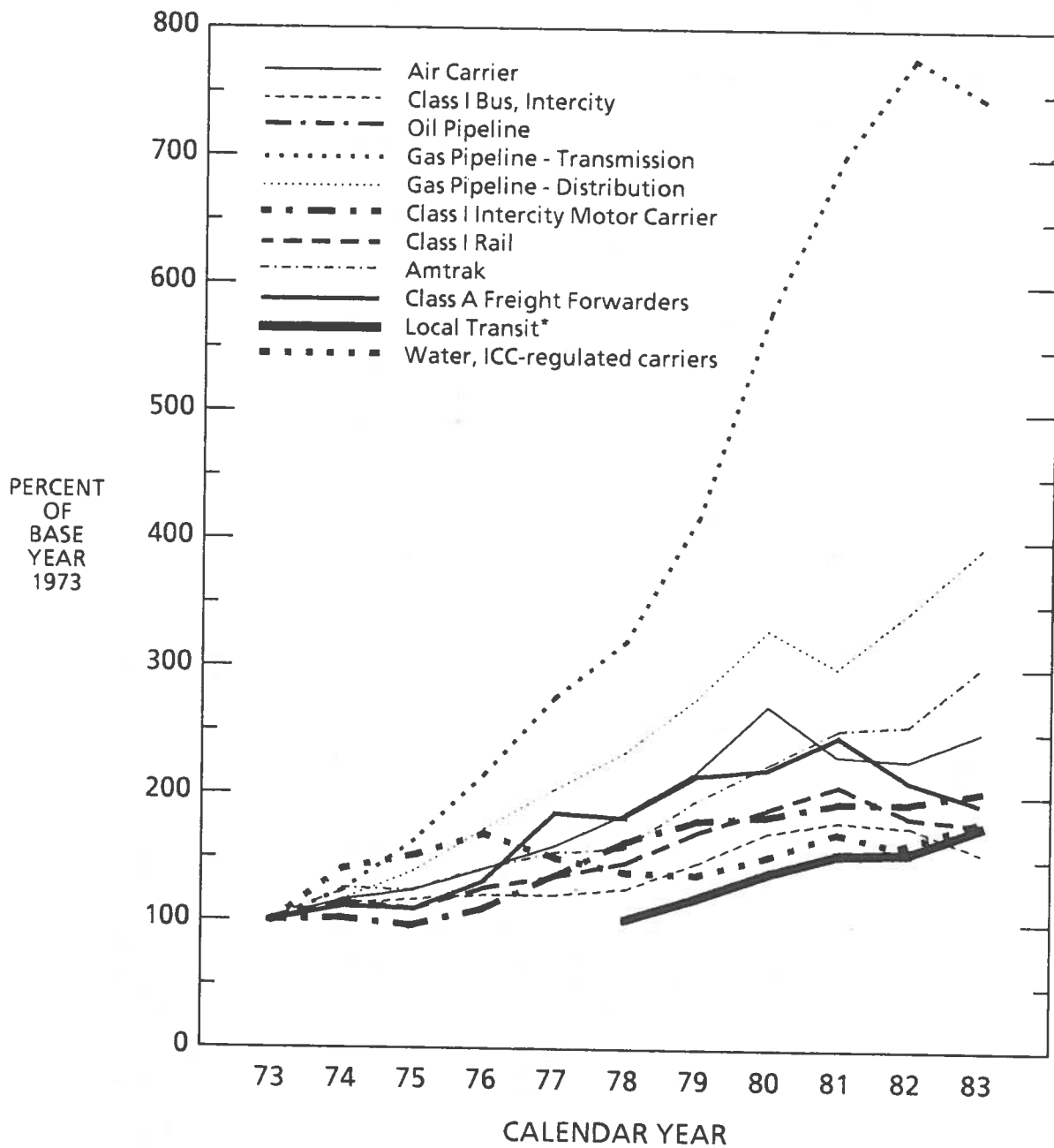


Figure 12. Total Operating Revenues, 1973-1983

* Base year equals 1978.

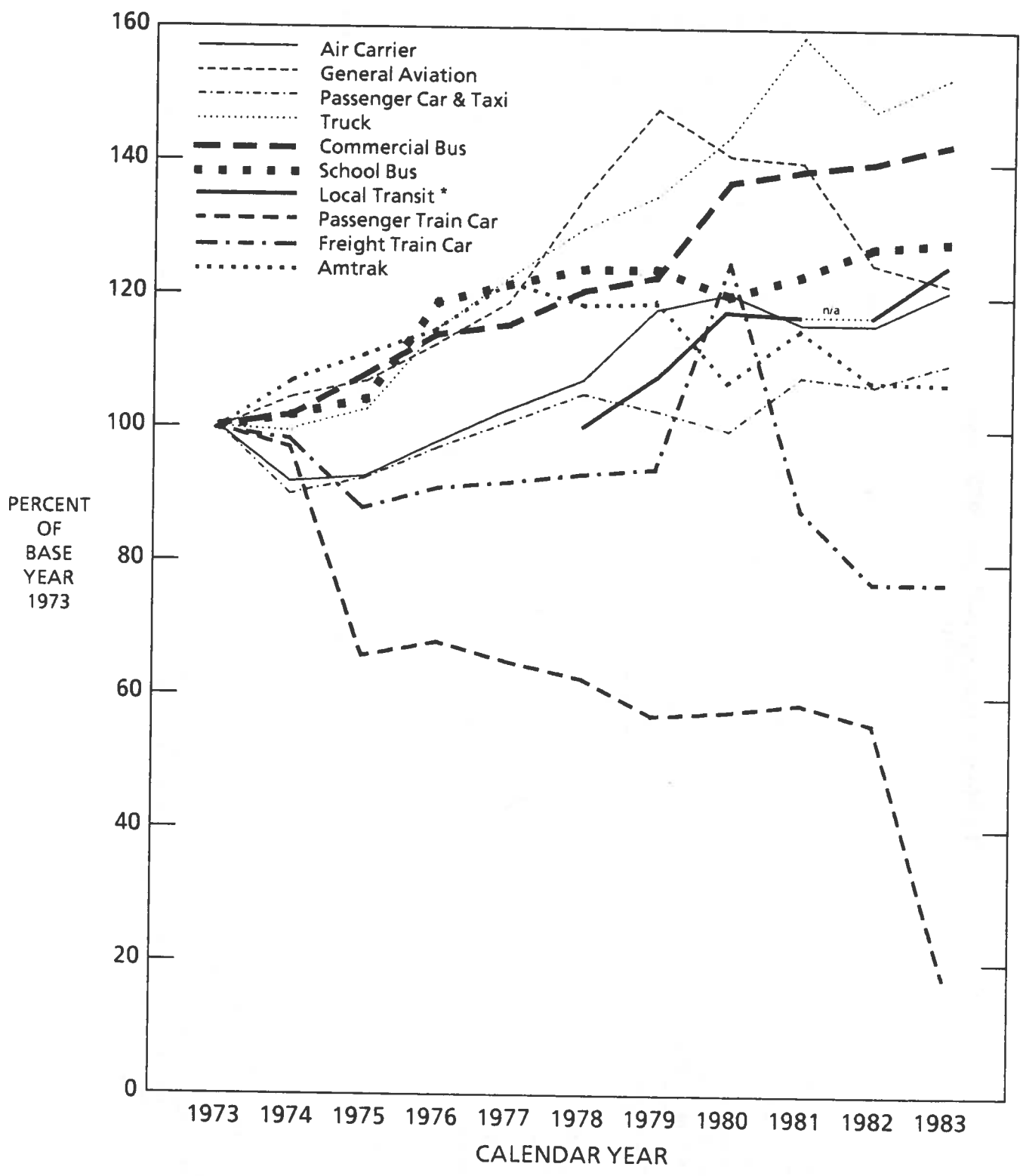


Figure 13. Vehicle-Miles, 1973-1983

* Base Year = 1978
 n/a = not available.

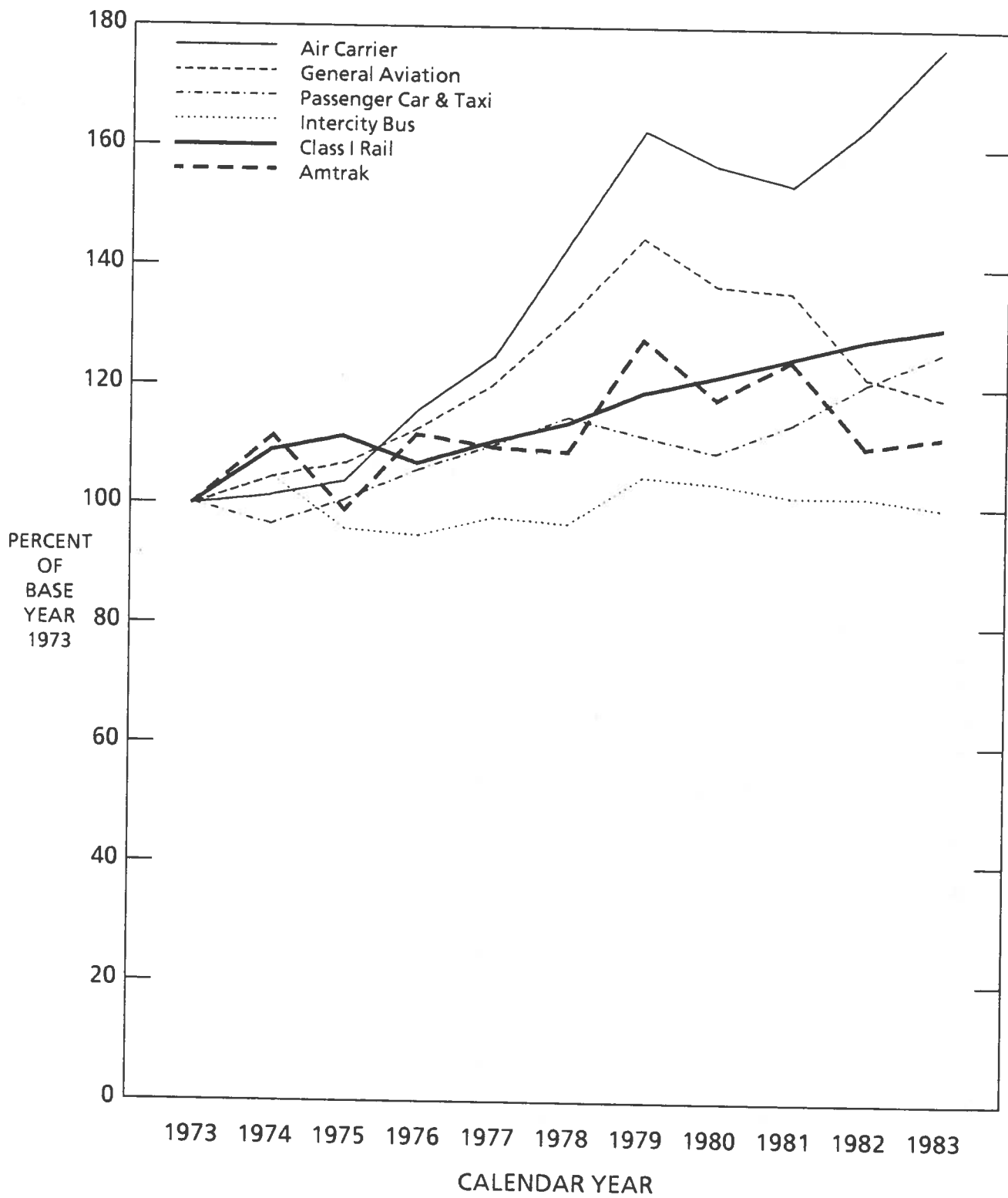


Figure 14. Passenger Miles, 1973-1983

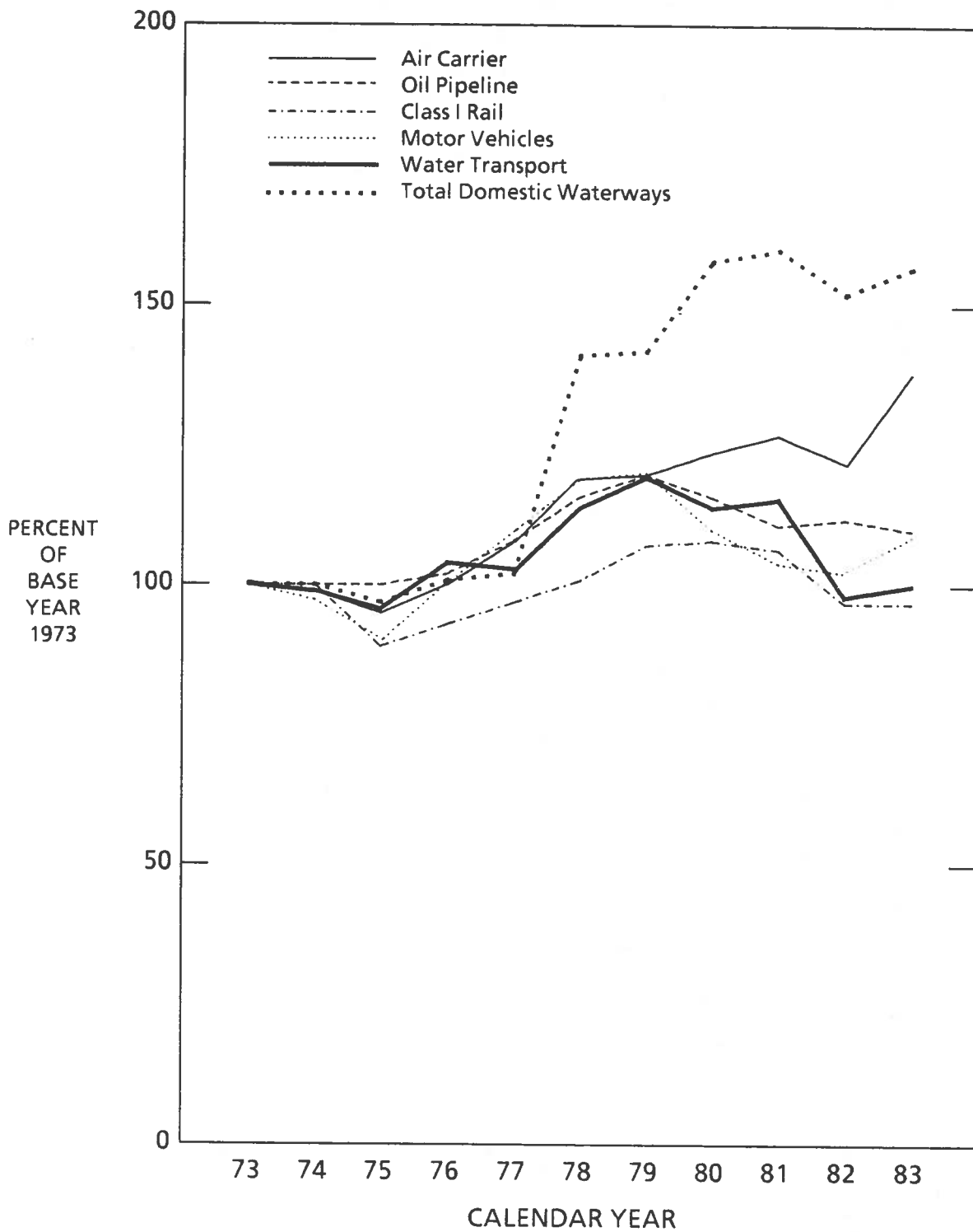


Figure 15. Revenue Ton-Miles of Freight, 1973-1983

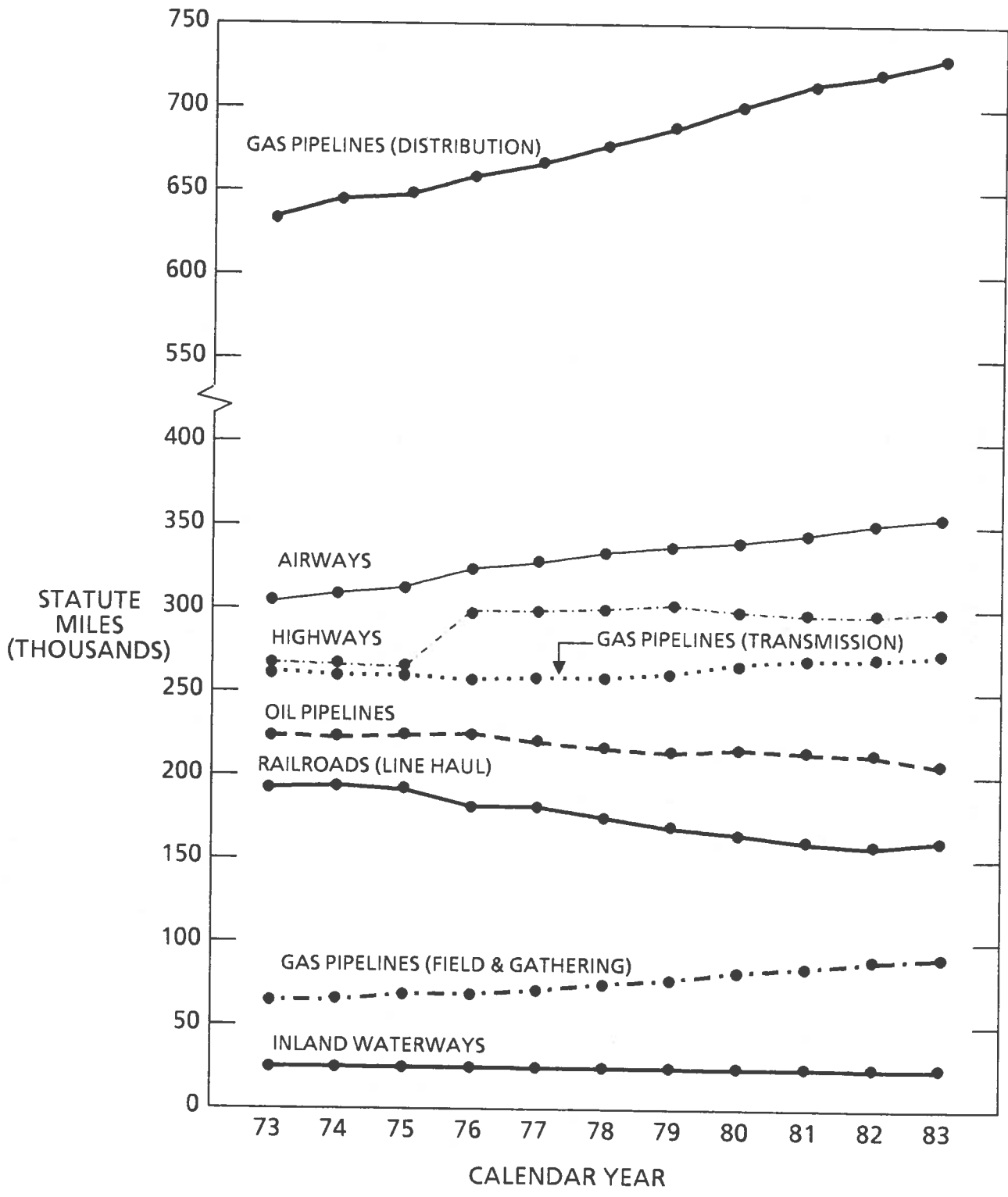


Figure 16. Basic Intercity Mileage Within the Continental United States, 1973-1983

Table 10. Number of New Vehicles Purchased, By Mode, 1973-1983

| | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------------------|-----------|
| Air Carrier (all services) Fixed-Wing | 294 | 332 | 315 | 222 | 155 | 241 | 376 | 387 | 387 | 232 | 262 |
| General Aviation | 13,671 | 14,261 ^r | 14,248 ^r | 15,820 ^r | 17,175 ^r | 18,049 ^r | 16,883 ^r | 11,777 ^r | 10,114 ^r | 4,055 ^r | 2,784 |
| Passenger car and taxi** | 11,439,000 | 8,871,000 | 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 |
| Motorcycles | 1,255,000 | 1,580,000 | 990,000 | 740,000 | 970,000 | 1,015,000 | 1,010,000 | 1,250,000 | 1,350,000 | 1,290,000 ^r | 1,040,000 |
| Mopeds | n/a | 13,000 | 32,000 | 78,000 | 190,000 | 350,000 | 130,000 | 180,000 | 67,000 | 18,000 | 22,000 |
| Bicycles | 15,200,000 | 14,100,000 | 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 |
| Truck (domestic) | 2,915,000 | 2,511,000 | 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 |
| Intercity bus (Class I) | 833 | 626 | 733 | 619* | 709 | 635 | 680 | 800 | 2,200 [†] | 2,000 [†] | 476 |
| Local transit | | | | | | | | | | | |
| Motor bus | 3,200 | 4,818 | 5,261 | 4,475 | 2,437 | 3,805 | 3,440 | 4,572 | 4,059 | 2,962 ^r | 4,081 |
| Light rail | 0 | 0 | 0 | 4 | 62 | 35 | 70 | 32 | 188 ^r | 10 ^r | 30 |
| Heavy rail | 238 | 92 | 127 | 472 | 506 | 172 | 94 | 130 | 274 ^r | 126 ^r | 88 |
| Trolley coach | 1 | 0 | 1 | 260 | 198 | 0 | 141 | 98 | 0 | 0 | 0 |
| Total | 3,439 | 4,910 | 5,389 | 5,481 | 3,203 | 4,012 | 3,745 | 4,832 | 4,523 ^r | 3,098 ^r | 4,199 |
| Class I railroad | | | | | | | | | | | |
| Freight cars | 34,171 | 36,315 | 41,692 | 30,836 | 27,098 | 28,003 | 28,640 | 31,193 | 20,900 | 5,765 | 3,496 |
| Locomotives | 1,165 | 1,018 | 772 | 438 | 820 | 1,214 | 1,709 | 1,466 | 470 | 323 | 200 |
| Pass. car and pullman | 73 | 85 | 156 | 44 | 20 | 42 | 43 | 44 | 0 | 1 | n/a |
| Total | 35,419 | 37,418 | 42,620 | 31,318 | 27,938 | 29,259 | 30,392 | 32,703 | 21,370 | 6,089 | 3,696 |
| Amtrak | | | | | | | | | | | |
| Pass. car and pullman | 10 | 0 | 109 | 305 | 133 | 1 | 56 | 108 | 119 | 101 | 31 |
| Locomotives | 67 | 362 | 30 | 58 | 4 | 75 | 39 | 17 | 43 | 35 | 0 |
| Total | 77 | 362 | 139 | 363 | 137 | 76 | 95 | 125 | 162 | 136 | 31 |
| Water | | | | | | | | | | | |
| Merchant vessels | 30 | 20 | 15 | 16 | 18 | 14 | 15 | 23 | 12 | 11 | 14 |
| Gross tonnage | 987,000 | 697,000 | 452,000 | 616,000 | 920,198 | 911,791 | 1,148,530 | 693,200 | 427,979 | 342,000 | 409,100 |

n/a = not available.

r = revised.

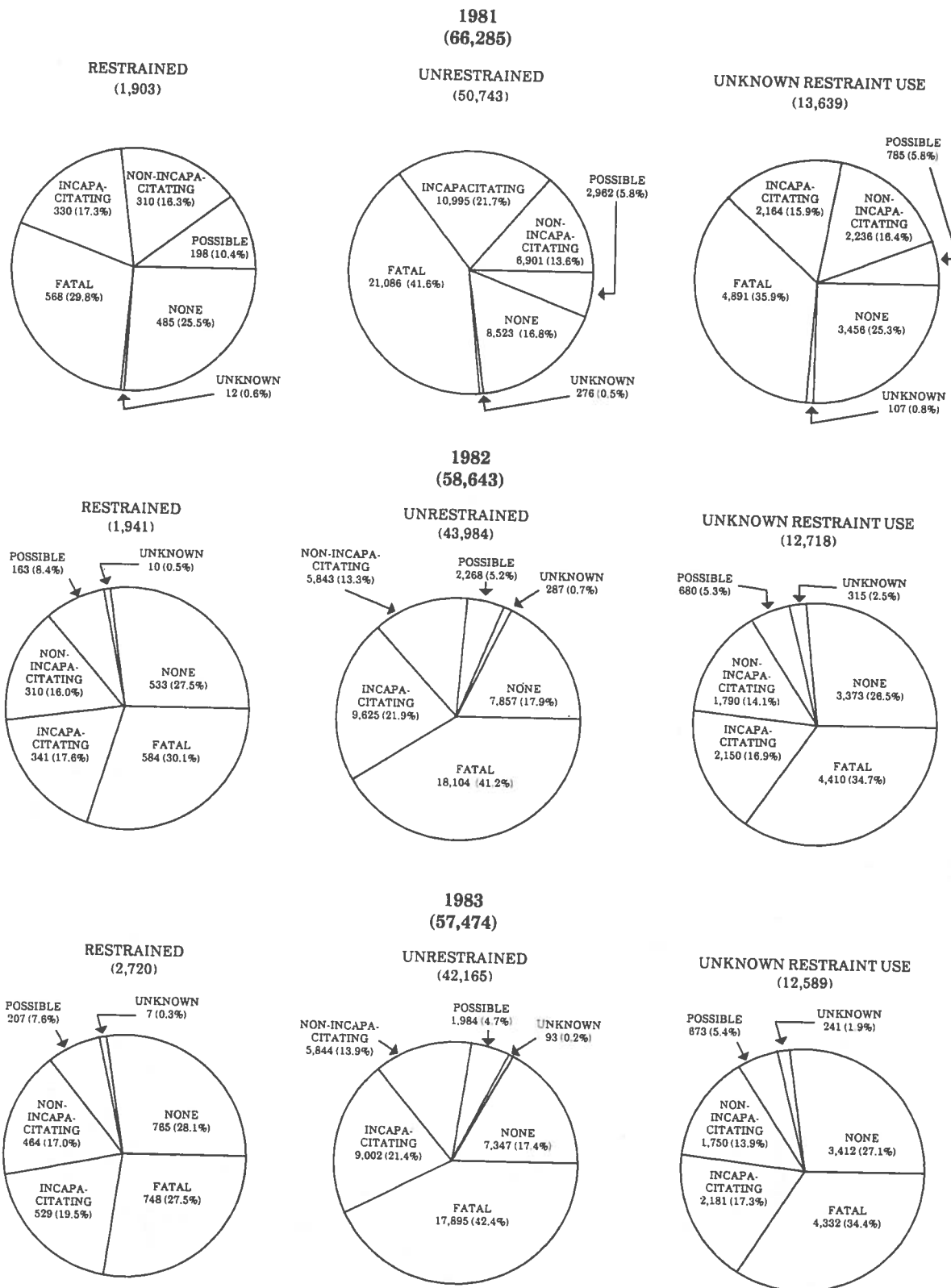
* Change in Class I definition.

** Includes domestic and imported vehicles.

† 1981 and 1982 data includes all carriers.

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

Figure 17. Injury Severity of Passenger Car Occupants in Fatal Accidents, 1981-1983



SOURCE: U.S. DOT/NHTSA, *Fatal Accident Reporting System, 1981-1983*, pp. 22, 25, 52.

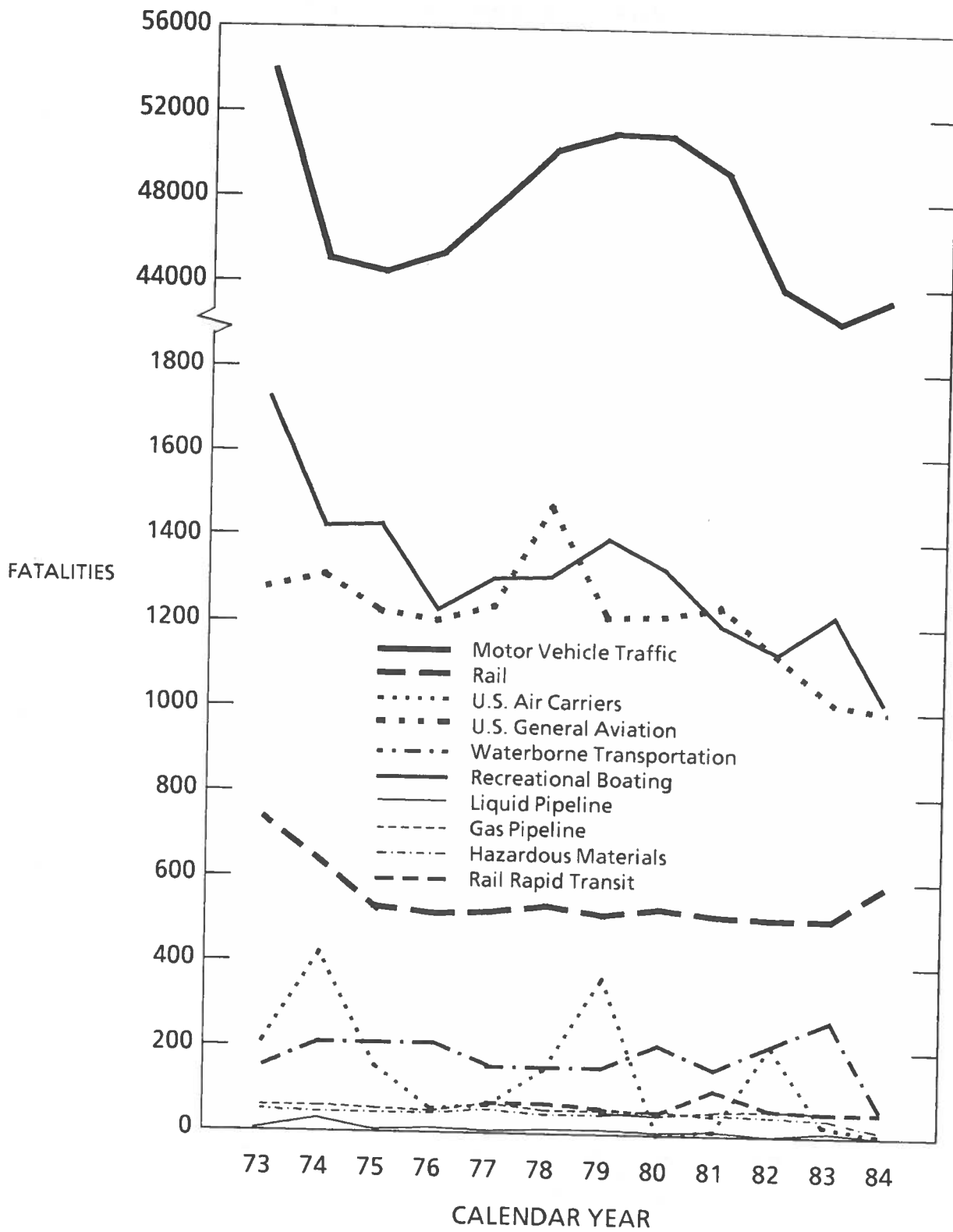


Figure 18. Number of Fatalities by Mode, 1973-1984

**Table 14. Air Travel Departures Between the United States and Foreign Countries, 1975 to 1984
(thousands)**

| Departures | | | | | | | | | | |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
| Flag of Carrier and Country | | | | | | | | | | |
| Total Passengers | 12,053 | 13,136 | 13,804 | 15,796 | 18,082 | 19,256 | 19,911 | 19,322 | 19,724 | 21,608 |
| Flag of Carrier | | | | | | | | | | |
| United States | 5,912 | 6,519 | 6,889 | 7,830 | 9,124 | 9,369 | 9,581 | 9,485 | 9,888 | 10,531 |
| Foreign | 6,141 | 6,617 | 6,915 | 7,965 | 8,958 | 9,886 | 10,330 | 9,837 | 9,837 | 11,076 |
| Country of debarkation¹ | | | | | | | | | | |
| Australia | 103 | 122 | 134 | 159 | 222 | 245 | 258 | 252 | 201 | 223 |
| Bahamas, The | 704 | 719 | 719 | 865 | 924 | 1,006 | 927 | 1,009 | 1,075 | 1,063 |
| Barbados | 74 | 76 | 97 | 105 | 124 | 126 | 116 | 113 | 168 | 212 |
| Belgium | 134 | 128 | 105 | 100 | 173 | 231 | 238 | 283 | 226 | 216 |
| Bermuda | 372 | 411 | 414 | 401 | 443 | 467 | 417 | 413 | 394 | 395 |
| Brazil | 206 | 192 | 181 | 217 | 252 | 291 | 301 | 303 | 303 | 304 |
| China/Taiwan | 41 | 53 | 61 | 77 | 85 | 90 | 105 | 123 | 128 | 167 |
| Colombia | 171 | 184 | 204 | 230 | 272 | 299 | 315 | 300 | 302 | 290 |
| Denmark | 188 | 202 | 210 | 214 | 238 | 254 | 243 | 235 | 219 | 235 |
| Dominican Republic | 322 | 352 | 390 | 402 | 417 | 443 | 466 | 464 | 490 | 479 |
| France | 470 | 508 | 539 | 569 | 646 | 635 | 646 | 647 | 656 | 748 |
| Germany, Fed. Rep. of | 649 | 756 | 824 | 897 | 1,003 | 1,178 | 1,149 | 1,164 | 1,220 | 1,419 |
| Grand Cayman | 26 | 58 | 64 | 73 | 91 | 112 | 117 | 116 | 135 | 160 |
| Greece | 123 | 167 | 185 | 198 | 220 | 190 | 190 | 197 | 222 | 234 |
| Haiti | 81 | 91 | 94 | 114 | 130 | 124 | 126 | 131 | 144 | 156 |
| Hong Kong | 59 | 67 | 51 | 76 | 127 | 152 | 166 | 144 | 184 | 263 |
| Ireland | 163 | 175 | 195 | 200 | 236 | 212 | 219 | 234 | 196 | 212 |
| Israel | 105 | 149 | 156 | 161 | 195 | 186 | 194 | 211 | 228 | 278 |
| Italy | 409 | 412 | 448 | 486 | 517 | 495 | 460 | 500 | 561 | 647 |
| Jamaica | 416 | 346 | 297 | 370 | 432 | 382 | 435 | 526 | 601 | 616 |
| Japan | 1,183 | 1,192 | 1,204 | 1,272 | 1,514 | 1,602 | 1,697 | 1,779 | 1,854 | 2,127 |
| Korea, Rep. of | 60 | 57 | 66 | 80 | 134 | 186 | 188 | 212 | 212 | 244 |
| Mexico | 1,525 | 1,654 | 1,570 | 2,062 | 2,536 | 2,886 | 3,157 | 2,516 | 2,670 | 2,808 |
| Netherlands | 304 | 289 | 314 | 338 | 422 | 409 | 443 | 477 | 458 | 513 |
| Netherlands Antilles | 184 | 237 | 230 | 256 | 302 | 282 | 322 | 297 | 321 | 346 |
| Panama Republic | 100 | 115 | 119 | 128 | 148 | 142 | 141 | 136 | 164 | 194 |
| Philippines | 81 | 105 | 111 | 138 | 132 | 160 | 178 | 175 | 133 | 166 |
| Spain | 260 | 253 | 259 | 295 | 292 | 273 | 288 | 321 | 350 | 378 |
| Switzerland | 224 | 282 | 323 | 311 | 305 | 306 | 315 | 330 | 327 | 409 |
| United Kingdom | 1,446 | 1,730 | 1,984 | 2,477 | 2,608 | 2,840 | 2,989 | 2,607 | 2,687 | 3,103 |
| Venezuela | 198 | 233 | 281 | 356 | 424 | 518 | 571 | 571 | 321 | 257 |
| Other | 1,672 | 1,821 | 1,975 | 2,169 | 2,518 | 2,534 | 2,534 | 2,536 | 2,564 | 2,746 |

Covers passengers on international commercial flights departing from 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 on any other outlying area are included. Data compiled from flight reports of U.S. Immigration and Naturalization Service. Selection of countries based on minimum of 150,000 arrivals in 1984.

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, Mass., U.S. *International Air Travel Statistics*, annual, beginning with 1975.

**Table 17. World Motor Vehicle Production, 1983
(thousands)**

| Country | Passenger Cars | Trucks and Buses | Total |
|------------------|----------------|------------------|--------|
| Argentina | 128 | 31 | 159 |
| Australia | 311 | 27 | 337 |
| Austria | 6 | 6 | 12 |
| Belgium | 261 | 25 | 285 |
| Brazil | 576 | 320 | 896 |
| Canada | 969 | 556 | 1,524 |
| Czechoslovakia | 172 | 58 | 230 |
| France | 2,961 | 375 | 3,336 |
| Germany, East | 183 | 41 | 224 |
| Germany, West | 3,878 | 293 | 4,171 |
| Hungary | n/a | 13 | 13 |
| India | 45 | 109 | 154 |
| Italy | 1,396 | 180 | 1,575 |
| Japan | 7,152 | 3,960 | 11,112 |
| Korea | 122 | 99 | 221 |
| Mexico | 207 | 78 | 285 |
| Netherlands, The | 106 | 12 | 118 |
| Poland | 260 | 54 | 314 |
| Romania | 99 | 55 | 154 |
| Spain | 1,142 | 147 | 1,289 |
| Sweden | 345 | 52 | 397 |
| United Kingdom | 1,045 | 245 | 1,289 |
| United States | 6,781 | 2,424 | 9,205 |
| U.S.S.R. | 1,318 | 861 | 2,178 |
| Yugoslavia | 210 | 38 | 248 |
| Total | 29,670 | 10,057 | 39,727 |

n/a = not available.

Source: Motor Vehicle Manufacturers Association of the U.S., Inc., *Facts & Figures*, 1984, p. 29

SUPPLEMENTARY DATA
Section I: Transportation and the Economy
1973 - 1983

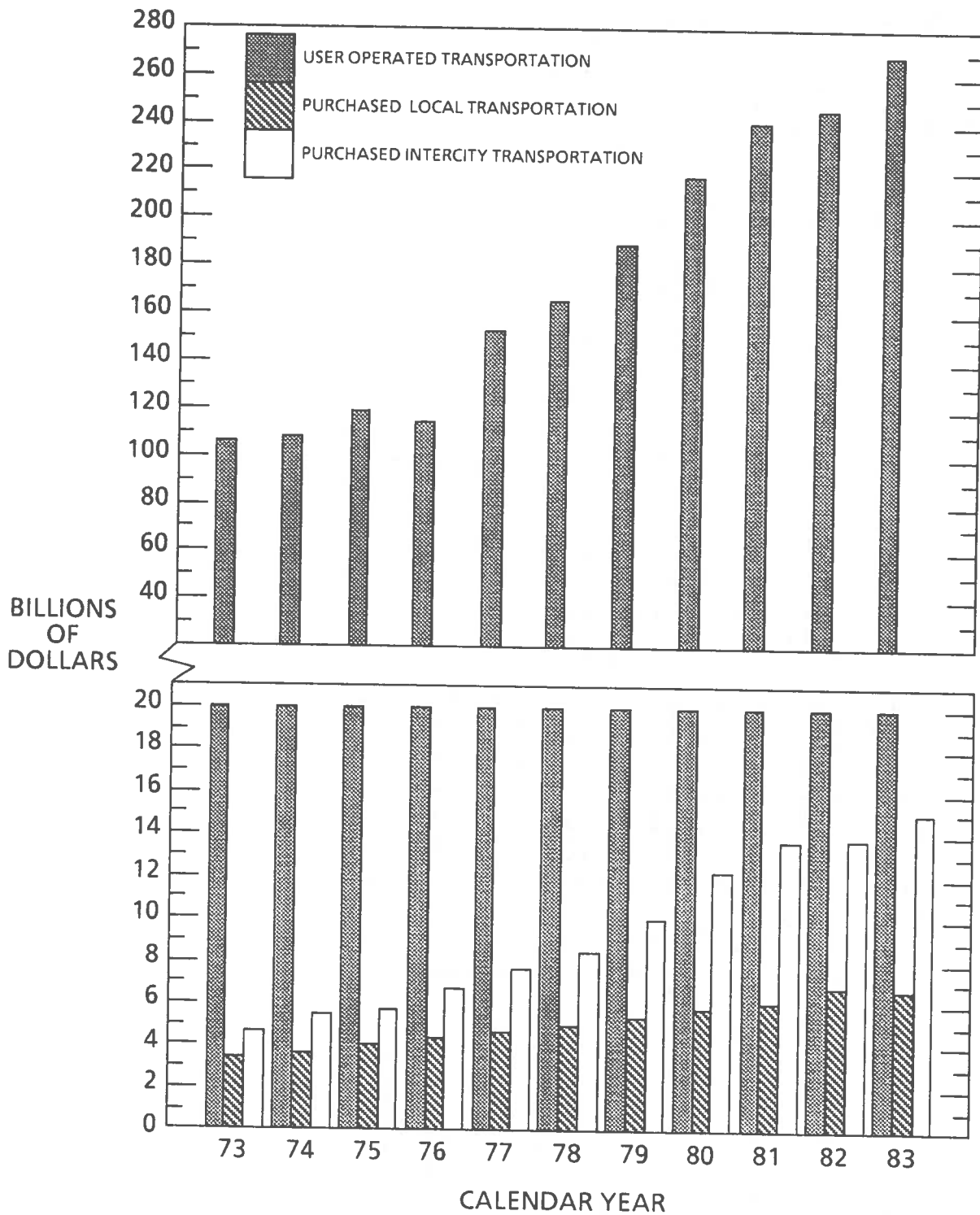


Figure 19. Personal Consumption Expenditures by Transportation Sector, 1973-1983

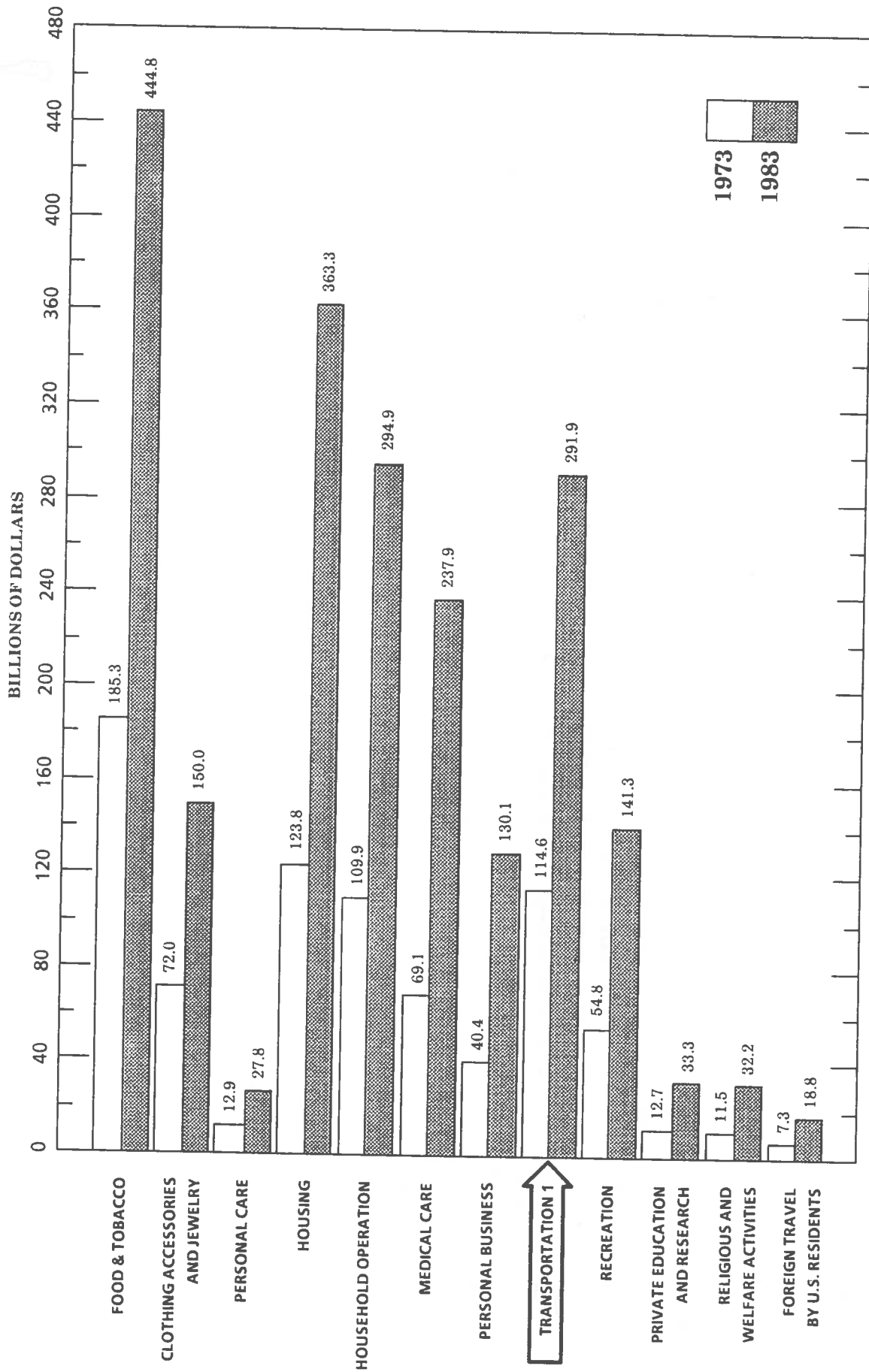


Figure 20. Personal Consumption Expenditures by Type of Product, 1973 and 1983

¹ Excluding Foreign Travel

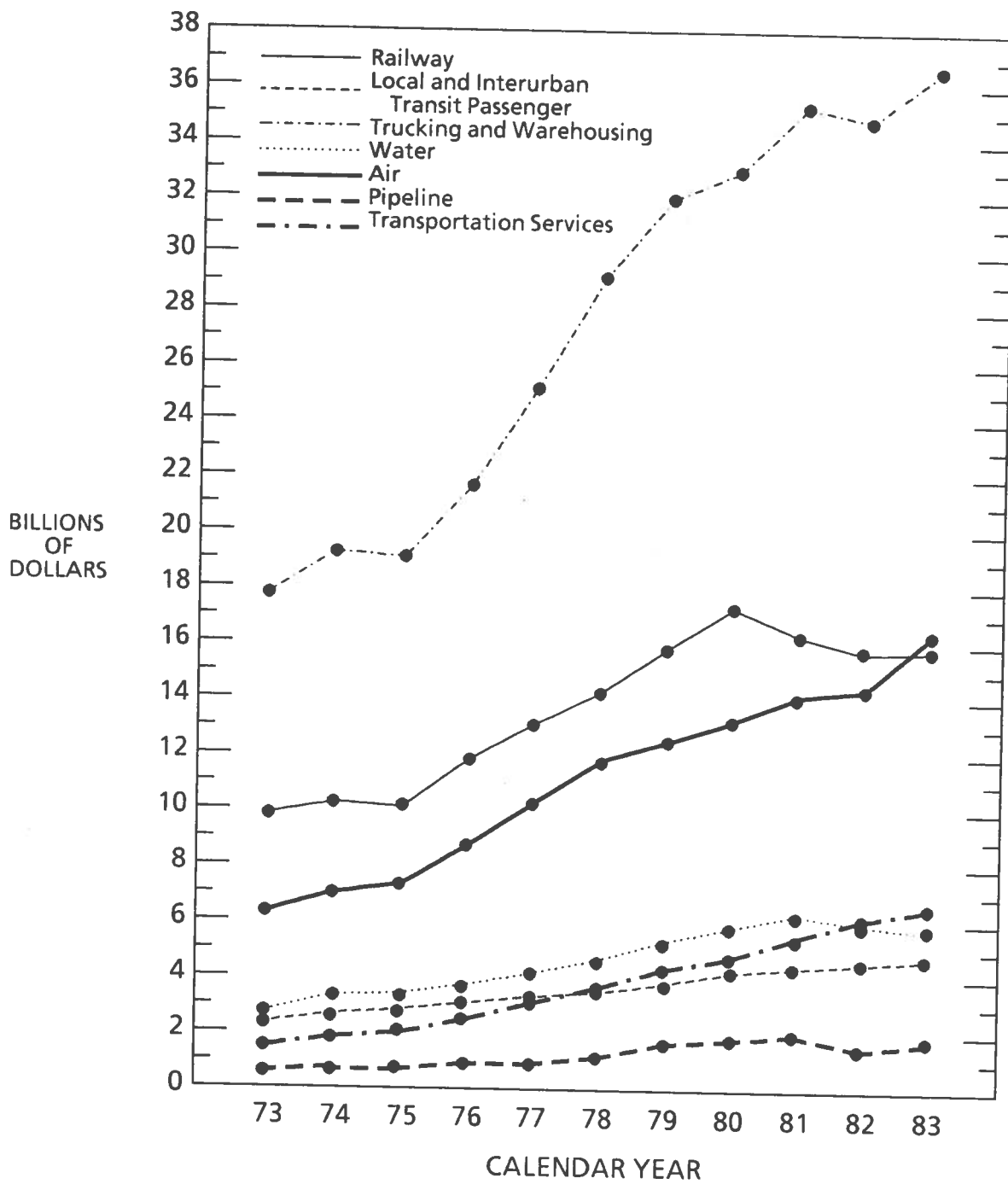


Figure 21. National Income by Transportation Sector, 1973 - 1983

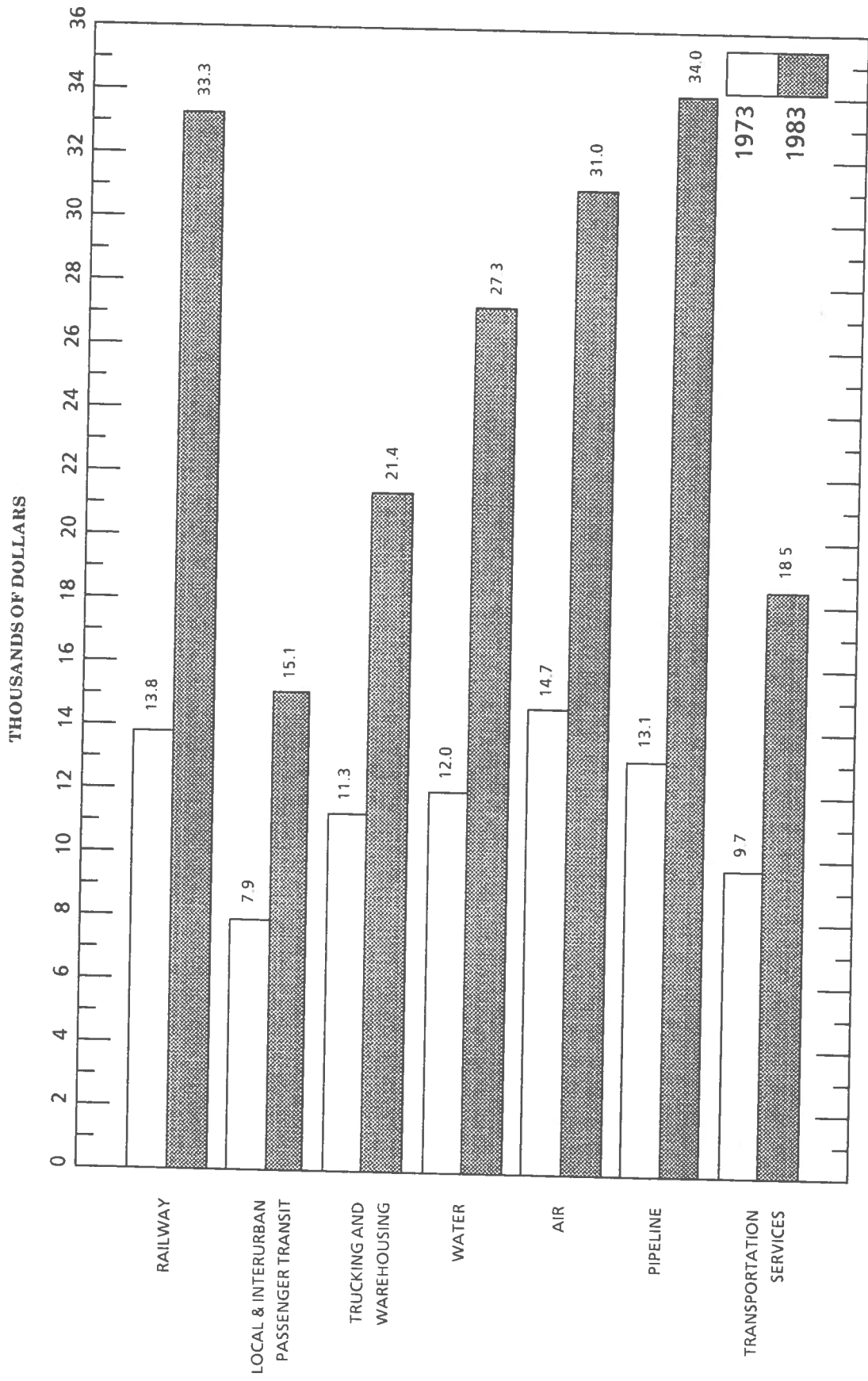


Figure 22. Average Annual Earnings per Full-Time Employee by Transportation Sector, 1973 and 1983

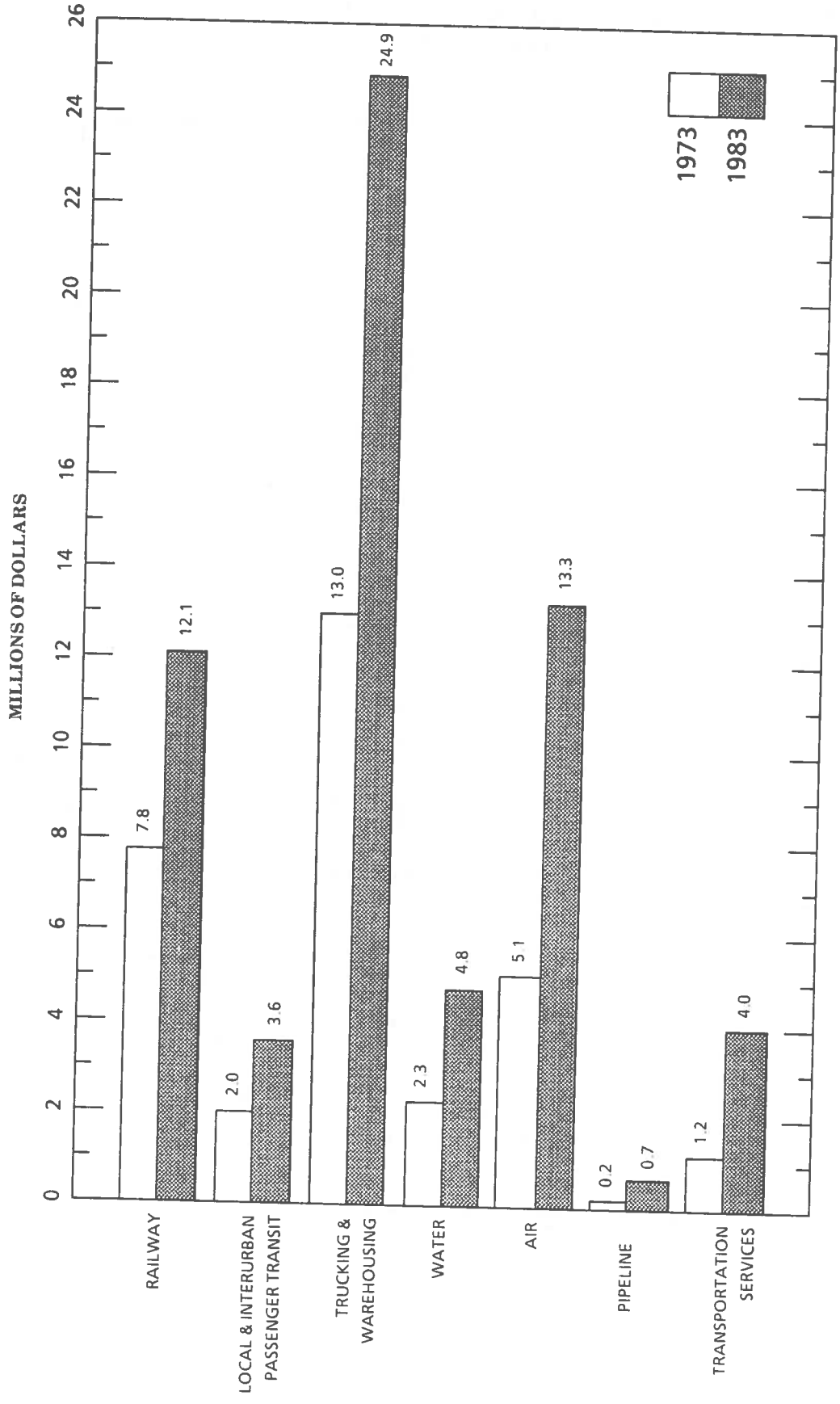


Figure 23. Wages and Salaries by Transportation Sector, 1973 and 1983

Table 25. National Transportation and Economic Trends, 1973-1983
(billions)

| | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|--|---------------------------|--|--|--|---------------------------|---------------------------|---------------------------|--|--|--------------|
| Total passenger-miles Index * | 2,420 133 | 2,368 130 | 2,449 135 | 2,570 141 | 2,674 147 | 2,815 155 | 2,777 153 | 2,704 149 | 2,807 155 | 2,977 ^r 158 | 3,092 170 |
| Total cargo ton-miles Index * | 2,810 ^r 124 ^r | 2,797 ^r 123 | 2,627 ^r 116 ^r | 2,787 ^r 123 ^r | 2,899 ^r 128 ^r | 3,284 ^r 145 | 3,387 ^r 149 | 3,395 ^r 150 | 3,345 ^r 147 ^r | 3,126 ^r 138 ^r | 3,216 142 |
| Population (millions) Index * | 211 106 ^r | 213 107 ^r | 215 108 ^r | 218 110 | 220 111 | 222 112 | 225 113 ^r | 227 114 ^r | 230 ^r 116 | 232 117 | 234 118 |
| Industrial production Index * | 130 | 129 | 118 | 131 | 138 | 146 | 153 | 147 | 151 | 139 | 148 |
| Gross national product (current dollars) Index * | 1,307 165 | 1,413 178 | 1,529 193 | 1,700 214 | 1,887 238 | 2,128 268 | 2,418 305 | 2,632 331 | 2,958 ^r 372 | 3,069 ^r 387 | 3,305 416 |

^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, 1973-1983

| | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|-------|-------|-------|-------|--------|--------|--------|---------------------|---------------------|---------------------|--------|
| U.S. residents- Overseas travelers (thousands) | 6,933 | 6,467 | 6,354 | 6,897 | 7,390 | 7,790 | 7,835 | 8,163 | 8,040 | 8,510 | 10,154 |
| Average expenditures Overseas (dollars) | 439 | 478 | 533 | 533 | 543 | 624 | 672 | 726 | 802 | 827 | 802 |
| Total travel and passenger fare transactions (millions of dollars) | 7,316 | 8,075 | 8,680 | 9,424 | 10,199 | 11,371 | 12,597 | 14,004 | 15,966 | 17,166 | 19,509 |
| Travel payments in foreign countries (millions of dollars) | 5,526 | 5,980 | 6,417 | 6,856 | 7,451 | 8,475 | 9,413 | 10,397 | 11,479 | 12,394 | 13,977 |
| Passenger fare payments to foreign countries (millions of dollars) | 1,790 | 2,095 | 2,263 | 2,568 | 2,748 | 2,896 | 3,184 | 3,607 | 4,487 | 4,772 | 5,532 |
| Foreign visitors to U.S. (thousands) | 3,554 | 3,700 | 3,674 | 4,456 | 4,509 | 5,764 | 7,230 | 8,200 ^r | 9,069 ^r | 8,761 ^r | 7,873 |
| Average expenditures of visitors (dollars) | 425 | 450 | 497 | 537 | 595 | 604 | 605 | 679 ^r | 713 ^r | 761 ^r | 799 |
| Total travel and passenger fare transactions (millions of dollars) | 4,130 | 4,845 | 5,464 | 6,679 | 7,175 | 8,421 | 10,118 | 10,650 ^r | 13,488 ^r | 13,085 ^r | 13,932 |
| Travel receipts in U.S. (millions of dollars) | 3,412 | 4,032 | 4,697 | 5,742 | 6,150 | 7,183 | 8,441 | 10,588 ^r | 12,913 ^r | 12,393 ^r | 11,408 |
| Passenger fare receipts in U.S. (millions of dollars) | 718 | 813 | 767 | 937 | 1,025 | 1,238 | 1,677 | 2,062 ^r | 2,575 ^r | 2,692 ^r | 2,524 |

^r = revised.

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

SUPPLEMENTARY DATA
Section II: Energy in Transportation

Part 1. Energy Consumption

Table 29. U.S. Energy Consumption by the Transportation Sector
(at 5-Year Intervals 1955-1965 and Annually 1966-1984)

| Year | Coal ¹ | | Petroleum | | Natural Gas ² | | Total Fossil Fuels ³ | Sales of Electricity ⁴ | Total Transportation Consumption | Total Gross Energy Consumption ^r |
|-------------------|--------------------|---------------------------|----------------------|---------------------------|--------------------------|---------------------------|---------------------------------|-----------------------------------|----------------------------------|---|
| | Million Short Tons | Trillion ⁴ Btu | Million Barrels | Trillion ⁵ Btu | Trillion Cubic Feet | Trillion ⁵ Btu | Trillion Btu | Million Kilowatt-Hours | Trillion ⁶ Btu | Quadrillion Btu |
| 1955 | 17.0 | 439 | 1,627.9 | 8,804 | 0.25 | 259 | 9,502 | 4,563 | 9,518 | 38.83 |
| 1960 | 3.0 | 80 | 1,881.2 | 10,136 | 0.35 | 362 | 10,578 | 4,770 | 10,594 | 43.81 |
| 1965 | 0.7 | 19 | 2,201.0 | 11,859 | 0.50 | 516 | 12,394 | 4,652 | 12,410 | 52.69 |
| 1966 | 0.6 | 16 | 2,317.8 | 12,493 | 0.54 | 558 | 13,067 | 4,514 | 13,082 | 55.67 |
| 1967 | 0.5 | 13 | 2,427.3 | 13,093 | 0.58 | 599 | 13,705 | 4,572 | 13,722 | 57.58 |
| 1968 | 0.4 | 11 | 2,620.7 | 14,147 | 0.59 | 608 | 14,766 | 4,540 | 14,782 | 61.01 |
| 1969 | 0.3 | 8 | 2,741.2 | 14,794 | 0.63 | 650 | 15,452 | 4,531 | 15,468 | 64.20 |
| 1970 | 0.3 | 8 | 2,836.0 | 15,300 | 0.72 | 742 | 16,050 | 4,633 | 16,066 | 66.44 |
| 1971 | 0.2 | 5 | 2,949.2 | 15,902 | 0.74 | 763 | 16,670 | 4,537 | 16,686 | 67.90 |
| 1972 | 0.2 | 5 | 3,129.3 | 16,867 | 0.77 | 791 | 17,663 | 4,440 | 17,678 | 71.27 |
| 1973 | 0.1 | 3 | 3,303.0 | 17,826 | 0.73 | 745 | 18,574 | 4,186 | 18,588 | 74.29 |
| 1974 | 0.1 | 3 | 3,226.6 | 17,404 | 0.67 | 686 | 18,093 | 4,258 | 18,108 | 72.55 |
| 1975 | * | ** | 3,267.0 | 17,616 | 0.58 | 592 | 18,208 | 4,273 | 18,223 | 70.55 |
| 1976 | * | ** | 3,429.4 | 18,505 | 0.55 | 560 | 19,065 | 4,338 | 19,080 | 74.37 |
| 1977 | * | ** | 3,558.8 | 19,225 | 0.53 | 540 | 19,765 | 4,212 | 19,779 | 76.29 |
| 1978 | * | ** | 3,701.1 | 20,012 | 0.53 | 538 | 20,550 | 4,336 | 20,565 | 78.09 |
| 1979 | * | ** | 3,650.0 | 19,820 | 0.60 | 611 | 20,431 | 4,256 | 20,446 | 78.90 |
| 1980 | * | ** | 3,495.3 | 19,014 | 0.63 | 645 | 19,659 | 4,275 | 19,674 | 75.96 |
| 1981 | * | ** | 3,460.2 | 18,803 | 0.64 | 657 | 19,460 | 4,206 | 19,474 | 73.99 |
| 1982 | * | ** | 3,394.5 | 18,408 | 0.60 | 616 | 19,024 | 4,288 | 19,039 | 70.84 |
| 1983 | * | ** | 3,434.7 ^r | 18,602 ^r | 0.49 ^r | 505 ^r | 19,107 ^r | 4,152 | 19,121 | 70.50 |
| 1984 ¹ | * | ** | 3,557.2 | 19,291 | 0.51 | 526 | 19,817 | 4,412 | 19,832 | 73.73 |

r = revised.

p = preliminary.

* Less than 0.05 million short tons.

** Less than 1 trillion Btu's.

¹ Bituminous Coal and Lignite only. ² Pipeline fuel. ³ Sum of coal, petroleum and natural gas. ⁴ Includes only energy used by Railroads and Railways. ⁵ Btu's derived by multiplying by conversion factors on p. 261 for bituminous coal and lignite consumption by Non-Utility, p. 260 for Natural Gas consumption by Non-Utility, p. 258 for petroleum in Transportation Use, and p. 257 for Electricity consumption, U.S. DOE, *Annual Energy Review 1984*. ⁶ Sum of total fossil fuels and sales of electricity.

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

Source: U.S. DOE, *Annual Energy Review 1984*.

Coal: Table 67; Petroleum: Table 50; Natural Gas: Table 61; Total Gross Energy Consumption: Table 4.

Edison Electric Institute, *Statistical Year Book*, 1978, 1971 and Historical Statistics Through the Year 1970.

Sales of Electricity: 1955-1978: *Ibid.*, Section IV, Table 19; 1979-1980: *Ibid.*, Source and Disposition of Electricity, 1980.

1981-1982: *Statistical Year Book*, 1982.

1983: *Ibid.*, Quarterly Statistical Report, 1984.

1984: *Ibid.*, personal communication.

Table 30. Fuel Consumption by Mode of Transportation, 1973-1983

| | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 |
|---|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------|
| Class I railroads | | | | | | | | | | | |
| Locomotives | | | | | | | | | | | |
| Diesel oil, gals x 10 ⁶ | 4,145 ^r | 4,116 ^r | 3,736 ^r | 3,896 ^r | 3,985 ^r | 3,968 ^r | 4,072 ^r | 3,944 ^r | 3,756 ^r | 3,179 ^r | 3,138 |
| Electricity, kWh x 10 ⁶ | 346 | 467 | 422 | 353 | 417 | 331 | 309 | 190 | 81 | 34 | n/a |
| Coal, tons | 1,202 | 1,160 | 1,160 | 1,421 | 1,569 | 1,275 | 1,421 | 830 ^r | 824 ^r | 838 ^r | 785 |
| Motor cars | | | | | | | | | | | |
| Diesel oil, gals x 10 ⁶ | 3 | 4 | 4 | 5 | 3 | 2 | 3 | 2 | 1 | 1 | 1 |
| Electricity, kWh x 10 ⁶ | 901 | 847 | 857 | 790 | 986 | 991 | 1,062 | 968 | 380 | 905 | 52 |
| Air | | | | | | | | | | | |
| Certified carriers | | | | | | | | | | | |
| Jet fuel, gals x 10 ⁶ | 10,671 | 9,546 | 9,507 | 9,808 [†] | 10,268 [†] | 10,639 [†] | 11,369 [†] | 11,311 [†] | 10,588 [†] | 10,406 | 10,671 |
| General aviation | | | | | | | | | | | |
| Aviation gasoline, gals x 10 ⁶ | 411 | 443 | 412 | 432 | 456 | 518 | 570 | 520 | 489 | 448 | 428 |
| Jet fuel, gals x 10 ⁶ | 304 | 357 | 453 | 495 | 536 | 763 | 736 | 766 | 759 | 887 | 613 |
| Highway | | | | | | | | | | | |
| Gasoline, gals x 10⁶ | | | | | | | | | | | |
| Pass. cars & taxis | 77,619 | 73,770 | 76,010 | 78,398 | 80,225 | 83,312 | 79,793 | 73,375 | 71,418 | 72,608 ^r | 73,150 |
| Motorcycles | 392 | 447 | 447 | 448 | 451 | 463 | 440 | 360 | 300 | 240 ^r | 240 |
| Diesel & gasoline, gals x 10⁶ | | | | | | | | | | | |
| Commercial buses ¹ | 520 | 525 | 553 | 574 | 583 | 615 | 618 | 696 | 711 | 721 | 737 |
| School buses | 327 | 333 | 342 | 390 | 401 | 407 | 405 | 380 | 387 | 399 | 402 |
| Single-unit trucks ² | 22,755 | 21,125 | 21,868 | 24,914 | 26,255 | 27,780 | 28,544 | 29,241 | 30,903 | 28,195 ^r | 28,853 |
| Combination trucks | 8,860 | 10,101 | 9,764 | 10,974 | 11,709 | 12,491 | 12,315 | 10,909 | 10,734 | 11,221 ^r | 12,005 |
| Water transport | | | | | | | | | | | |
| Residual fuel oil, gals x 10⁶ | | | | | | | | | | | |
| | 3,881 | 3,824 | 4,060 | 4,933 | 5,417 | 6,615 | 8,003 | 8,952 | 7,922 | 6,409 | 5,724 |
| Distillate fuel oil, gals x 10⁶ | | | | | | | | | | | |
| | 1,125 | 1,040 | 1,098 | 1,190 | 1,408 | 1,579 | 1,631 | 1,478 | 1,723 | 1,423 | 1,419 |
| Gasoline, gals x 10⁶ | | | | | | | | | | | |
| | 717 | 697 | 730 | 764 | 774 | 812 | 780 | 1,052 | 1,093 | 1,062 | 1,069 |
| Transit* | | | | | | | | | | | |
| Electricity, kWh x 10⁶ | | | | | | | | | | | |
| Rapid transit | n/a | n/a | n/a | n/a | n/a | 1,984 | 2,469 | 2,611 | 2,617 | n/a | 2,711 |
| Streetcar | n/a | n/a | n/a | n/a | n/a | 22 | 124 | 131 | 153 | n/a | 162 |
| Trolley bus | n/a | n/a | n/a | n/a | n/a | 11 | 55 | 48 | 45 | n/a | 59 |
| Other** | n/a | n/a | n/a | n/a | n/a | 0 | 0 | 3 | 3 | n/a | 470 |
| Total | n/a | n/a | n/a | n/a | n/a | 2,017 | 2,643 | 2,793 | 2,818 | n/a | 3,942 |
| Gallons of motor fuel, gals x 10⁶ | | | | | | | | | | | |
| Gasoline | 12 | 7 | 5 | 5 | 8 | 8 | 18 | 11 | 9 | n/a | 9 |
| Diesel oil | 283 | 316 | 365 | 389 | 403 | 362 | 376 | 411 | 424 | n/a | 462 |
| Propane | 15 | 3 | 3 | 1 | 1 | 0 | 3 | 3 | 2 | n/a | 2 |
| Pipelines | | | | | | | | | | | |
| Natural gas, cu. ft. x 10⁶ | | | | | | | | | | | |
| | 728,177 | 668,834 | 582,963 | 548,323 | 532,669 | 530,451 | 600,964 | 634,622 | 642,325 | 596,411 | 490,042 |
| Total³ | | | | | | | | | | | |
| Non-highway use of gasoline x 10⁶ | | | | | | | | | | | |
| | 3,896 | 3,623 | 3,642 | 3,778 | 3,725 | 3,577 | 3,645 | 3,655 | 3,515 | 3,260 | 3,216 |

n/a = not available.

r = revised.

* Data for the period July 1, 1982 through June 30, 1983 were not available due to changes in UMTA Section 15 reporting procedures from fiscal year basis to calendar year basis.

** Commuter rail for 1983.

† Includes Aviation Gasoline.

¹ Includes intercity and urban buses.

² Includes non-freight truck movements.

³ Private, commercial, and public non-highway use of gasoline.

Source: See Appendix A, pp. A-27, A-28.

Table 32. Fuel Consumption and Travel by Personal Passenger Vehicles¹, 1973-1983

| Year | Number Registered (thousands) | Total ² 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 | All Personal Passenger Vehicles | Passenger Cars | Motor-cycles | All Personal Passenger Vehicles | Passenger Cars | Motor-cycles | All Personal Passenger Vehicles | Passenger Cars | Motor-cycles | All Personal Passenger Vehicles |
| 1973 | 106,119 | 1,036,455 | 9,992 | 4,498 | 9,767 | 13.10 | 50 | 13.29 | 77,619 | 392 | 78,011 | 763 | 90 | 736 |
| 1974 | 109,823 | 1,013,068 | 9,448 | 4,500 | 9,225 | 13.43 | 50 | 13.65 | 73,770 | 447 | 74,217 | 704 | 90 | 676 |
| 1975 | 111,679 | 1,050,472 | 9,634 | 4,500 | 9,406 | 13.53 | 50 | 13.74 | 76,010 | 447 | 76,457 | 712 | 90 | 685 |
| 1976 | 115,170 | 1,098,179 | 9,763 | 4,500 | 9,535 | 13.72 | 50 | 13.93 | 78,998 | 448 | 78,847 | 711 | 90 | 685 |
| 1977 | 118,711 | 1,141,215 | 9,839 | 4,500 | 9,613 | 13.94 | 50 | 14.15 | 80,225 | 451 | 80,677 | 706 | 90 | 680 |
| 1978 | 132,717 | 1,194,231 | 10,046 | 4,500 | 9,812 | 14.06 | 50 | 14.26 | 83,312 | 463 | 83,775 | 715 | 90 | 688 |
| 1979 | 125,750 | 1,162,528 | 9,485 | 4,000 | 9,245 | 14.29 | 50 | 14.49 | 79,793 | 440 | 80,233 | 664 | 80 | 638 |
| 1980 | 127,448 | 1,129,887 | 9,135 | 3,144 | 8,865 | 15.15 | 50 | 15.32 | 73,375 | 360 | 73,735 | 603 | 63 | 579 |
| 1981 | 129,123 | 1,124,843 | 9,002 | 2,573 | 8,711 | 15.54 | 50 | 15.68 | 71,419 | 300 | 71,718 | 579 | 51 | 555 |
| 1982 ^r | 129,499 | 1,191,623 | 9,533 | 2,086 | 9,202 | 16.25 | 50 | 16.36 | 72,608 | 240 | 72,848 | 587 | 42 | 563 |
| 1983 | 132,313 | 1,233,846 | 9,641 | 2,149 | 9,325 | 16.70 | 50 | 16.81 | 73,150 | 240 | 73,390 | 577 | 43 | 555 |

r = revised.

1 For the 50 states and District of Columbia.

2 Includes motorcycles.

Source: U.S. DOT/FHWA, *Highway Statistics*, annual issues, Table VM-1.

Table 34. Fuel Consumption and Travel by Motor Trucks¹, 1973-1983

| Year | 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 | | |
|-------------------|---|----------------|------------------------------------|---------------|------------|-----------------------------------|---------------|------------|---|---------------|------------|--|---------------|------------|
| | Number Registered (thousands) | Miles Traveled | Single-unit Trucks | Combi-nations | All Trucks | Single-unit Trucks | Combi-nations | All Trucks | Single-unit Trucks | Combi-nations | All Trucks | Single-unit Trucks | Combi-nations | All Trucks |
| 1973 | 23,233 | 267,147 | 9,868 | 46,716 | 11,538 | 9.63 | 5.42 | 8.45 | 22,755 | 8,860 | 31,615 | 1,025 | 8,620 | 1,361 |
| 1974 | 24,630 | 267,519 | 8,981 | 51,667 | 10,861 | 10.01 | 5.55 | 8.57 | 21,125 | 10,101 | 31,226 | 897 | 9,310 | 1,269 |
| 1975 | 25,776 | 274,454 | 8,882 | 49,125 | 10,648 | 10.01 | 5.69 | 8.68 | 21,868 | 9,764 | 31,632 | 887 | 8,633 | 1,227 |
| 1976 | 27,779 | 307,950 | 9,369 | 48,297 | 11,086 | 9.99 | 5.39 | 8.58 | 24,914 | 10,975 | 35,890 | 938 | 8,961 | 1,292 |
| 1977 | 29,562 | 329,465 | 9,400 | 50,206 | 11,145 | 10.13 | 5.42 | 8.68 | 26,255 | 11,709 | 37,964 | 928 | 9,263 | 1,284 |
| 1978 | 31,703 | 347,906 | 9,249 | 49,267 | 10,974 | 10.10 | 5.39 | 8.64 | 27,780 | 12,491 | 40,271 | 916 | 9,141 | 1,270 |
| 1979 | 33,350 | 360,500 | 9,184 | 49,664 | 10,810 | 10.30 | 5.40 | 8.82 | 28,544 | 12,315 | 40,859 | 892 | 9,197 | 1,225 |
| 1980 | 33,637 | 384,570 | 10,070 | 42,705 | 11,433 | 11.10 | 5.50 | 9.58 | 29,241 | 10,909 | 40,150 | 907 | 7,764 | 1,194 |
| 1981 | 34,451 | 425,127 | 11,028 | 47,023 | 12,340 | 11.84 | 5.50 | 10.21 | 30,903 | 10,734 | 41,637 | 931 | 8,550 | 1,209 |
| 1982 ^r | 35,143 | 394,219 | 9,805 | 50,075 | 11,217 | 11.79 | 5.50 | 10.00 | 28,195 | 11,221 | 39,416 | 831 | 9,106 | 1,122 |
| 1983 | 36,548 | 408,514 | 9,705 | 52,424 | 11,178 | 11.87 | 5.50 | 10.00 | 28,853 | 12,005 | 40,858 | 818 | 9,532 | 1,118 |

^r = revised.

¹ For the 50 States and District of Columbia.

Source: U.S. DOT/FHWA, *Highway Statistics*, annual issues, Table VM-1.

**Table 36. Motor Fuel and Energy Consumption by the U.S. Transit Industry
(at 5-Year Intervals 1955-1965 and Annually 1966-1983)**

| Year | Kilowatt Hours Consumed (in millions) | | | | Gallons of Motor Fuel Used (in millions) | | |
|------|--|------------|---------------|-------|---|------------|---------|
| | Heavy Rail | Light Rail | Trolley Coach | Total | Gasoline | Diesel Oil | Propane |
| 1955 | 1,900 | 910 | 720 | 3,530 | 246.0 | 172.6 | 30.3 |
| 1960 | 2,098 | 393 | 417 | 2,908 | 153.6 | 208.1 | 38.3 |
| 1965 | 2,185 | 218 | 181 | 2,584 | 91.5 | 248.4 | 32.7 |
| 1966 | 2,075 | 226 | 166 | 2,467 | 76.0 | 256.0 | 33.6 |
| 1967 | 2,194 | 180 | 157 | 2,531 | 57.8 | 270.3 | 33.0 |
| 1968 | 2,250 | 179 | 157 | 2,586 | 45.7 | 274.2 | 32.2 |
| 1969 | 2,291 | 173 | 154 | 2,618 | 40.0 | 273.8 | 31.6 |
| 1970 | 2,261 | 157 | 143 | 2,561 | 37.2 | 270.6 | 31.0 |
| 1971 | 2,262 | 153 | 141 | 2,556 | 29.4 | 256.8 | 26.5 |
| 1972 | 2,149 | 146 | 133 | 2,428 | 19.6 | 253.3 | 24.4 |
| 1973 | 2,098 | 140 | 93 | 2,331 | 12.3 | 282.6 | 15.2 |
| 1974 | n/a | n/a | n/a | 2,630 | 7.5 | 316.4 | 3.1 |
| 1975 | n/a | n/a | n/a | 2,646 | 5.0 | 365.1 | 2.6 |
| 1976 | n/a | n/a | n/a | 2,576 | 5.2 | 389.2 | 1.0 |
| 1977 | n/a | n/a | n/a | 2,303 | 8.1 | 402.8 | 1.2 |
| 1978 | n/a | n/a | n/a | 2,017 | 8.0 | 362.0 | 0.4 |
| 1979 | n/a | n/a | n/a | 2,648 | 18.0 | 376.0 | 3.0 |
| 1980 | n/a | n/a | n/a | 2,793 | 11.0 | 411.0 | 3.0 |
| 1981 | n/a | n/a | n/a | 2,818 | 9.0 | 424.0 | 2.0 |
| 1982 | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 1983 | n/a | n/a | n/a | 3,402 | 9.0 | 462.0 | 2.0 |

n/a = not available.

Note: Data for the period July 1, 1982 through June 30, 1983 were not available due to changes in UMTA Section 15 reporting procedures from fiscal year basis to calendar year basis.

Source: 1955-1977: American Public Transit Association, *Transit Fact Book*, 1981, Table 17.

1978-1981: UMTA, *National Mass Transportation Statistics, 1981 - 1983 Section 15 Annual Reports*, Table 002.11.1.

1983: *Ibid.*, 1984, Table 2.10.

Table 34. Fuel Consumption and Travel by Motor Trucks¹, 1973-1983

| Year | Number Registered (thousands) | 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 | Combinations | All Trucks | Single-unit Trucks | Combinations | All Trucks | Single-unit Trucks | Combinations | All Trucks | Single-unit Trucks | Combinations | All Trucks |
| 1973 | 23,233 | 9,868 | 46,716 | 11,538 | 9.63 | 5.42 | 8.45 | 22,755 | 8,860 | 31,615 | 1,025 | 8,620 | 1,361 |
| 1974 | 24,630 | 8,981 | 51,667 | 10,861 | 10.01 | 5.55 | 8.57 | 21,125 | 10,101 | 31,226 | 897 | 9,310 | 1,269 |
| 1975 | 25,776 | 8,882 | 49,125 | 10,648 | 10.01 | 5.69 | 8.68 | 21,868 | 9,764 | 31,632 | 887 | 8,633 | 1,227 |
| 1976 | 27,779 | 9,369 | 48,297 | 11,086 | 9.99 | 5.39 | 8.58 | 24,914 | 10,975 | 35,890 | 938 | 8,961 | 1,292 |
| 1977 | 29,562 | 9,400 | 50,206 | 11,145 | 10.13 | 5.42 | 8.68 | 26,255 | 11,709 | 37,964 | 928 | 9,263 | 1,284 |
| 1978 | 31,703 | 9,249 | 49,267 | 10,974 | 10.10 | 5.39 | 8.64 | 27,780 | 12,491 | 40,271 | 916 | 9,141 | 1,270 |
| 1979 | 33,350 | 9,184 | 49,664 | 10,810 | 10.30 | 5.40 | 8.82 | 28,544 | 12,315 | 40,859 | 892 | 9,197 | 1,225 |
| 1980 | 33,637 | 10,070 | 42,705 | 11,433 | 11.10 | 5.50 | 9.58 | 29,241 | 10,909 | 40,150 | 907 | 7,764 | 1,194 |
| 1981 | 34,451 | 11,028 | 47,023 | 12,340 | 11.84 | 5.50 | 10.21 | 30,903 | 10,734 | 41,637 | 931 | 8,550 | 1,209 |
| 1982 ^r | 35,143 | 9,805 | 50,075 | 11,217 | 11.79 | 5.50 | 10.00 | 28,195 | 11,221 | 39,416 | 831 | 9,106 | 1,122 |
| 1983 | 36,548 | 9,705 | 52,424 | 11,178 | 11.87 | 5.50 | 10.00 | 28,853 | 12,005 | 40,858 | 818 | 9,532 | 1,118 |

^r = revised.

¹ For the 50 States and District of Columbia.

Source: U.S. DOT/FHWA, *Highway Statistics*, annual issues, Table VM-1.

**Table 36. Motor Fuel and Energy Consumption by the U.S. Transit Industry
(at 5-Year Intervals 1955-1965 and Annually 1966-1983)**

| Year | Kilowatt Hours Consumed (in millions) | | | | Gallons of Motor Fuel Used (in millions) | | |
|------|--|------------|---------------|-------|---|------------|---------|
| | Heavy Rail | Light Rail | Trolley Coach | Total | Gasoline | Diesel Oil | Propane |
| 1955 | 1,900 | 910 | 720 | 3,530 | 246.0 | 172.6 | 30.3 |
| 1960 | 2,098 | 393 | 417 | 2,908 | 153.6 | 208.1 | 38.3 |
| 1965 | 2,185 | 218 | 181 | 2,584 | 91.5 | 248.4 | 32.7 |
| 1966 | 2,075 | 226 | 166 | 2,467 | 76.0 | 256.0 | 33.6 |
| 1967 | 2,194 | 180 | 157 | 2,531 | 57.8 | 270.3 | 33.0 |
| 1968 | 2,250 | 179 | 157 | 2,586 | 45.7 | 274.2 | 32.2 |
| 1969 | 2,291 | 173 | 154 | 2,618 | 40.0 | 273.8 | 31.6 |
| 1970 | 2,261 | 157 | 143 | 2,561 | 37.2 | 270.6 | 31.0 |
| 1971 | 2,262 | 153 | 141 | 2,556 | 29.4 | 256.8 | 26.5 |
| 1972 | 2,149 | 146 | 133 | 2,428 | 19.6 | 253.3 | 24.4 |
| 1973 | 2,098 | 140 | 93 | 2,331 | 12.3 | 282.6 | 15.2 |
| 1974 | n/a | n/a | n/a | 2,630 | 7.5 | 316.4 | 3.1 |
| 1975 | n/a | n/a | n/a | 2,646 | 5.0 | 365.1 | 2.6 |
| 1976 | n/a | n/a | n/a | 2,576 | 5.2 | 389.2 | 1.0 |
| 1977 | n/a | n/a | n/a | 2,303 | 8.1 | 402.8 | 1.2 |
| 1978 | n/a | n/a | n/a | 2,017 | 8.0 | 362.0 | 0.4 |
| 1979 | n/a | n/a | n/a | 2,648 | 18.0 | 376.0 | 3.0 |
| 1980 | n/a | n/a | n/a | 2,793 | 11.0 | 411.0 | 3.0 |
| 1981 | n/a | n/a | n/a | 2,818 | 9.0 | 424.0 | 2.0 |
| 1982 | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 1983 | n/a | n/a | n/a | 3,402 | 9.0 | 462.0 | 2.0 |

n/a = not available.

Note: Data for the period July 1, 1982 through June 30, 1983 were not available due to changes in UMTA Section 15 reporting procedures from fiscal year basis to calendar year basis.

Source: 1955-1977: American Public Transit Association, *Transit Fact Book*, 1981, Table 17.

1978-1981: UMTA, *National Mass Transportation Statistics, 1981 - 1983 Section 15 Annual Reports*, Table 002.11.1.

1983: *Ibid.*, 1984, Table 2.10.

Table 38. U.S. Government Energy Use by Agency, by Source, Fiscal Years 1975 and 1984
(trillion Btu)

| | Petroleum | | | | | | Electricity | Natural Gas | Coal and Other ² | Total |
|---------------------------------|----------------|-----------------------------------|--------------|--------------------|--------------|--------------|-------------|----------------|-----------------------------|-------|
| | Motor Gasoline | Distillate and Residual Fuel Oils | | Other ¹ | Total | Total | | | | |
| | | | | | | | | | | |
| 1975 | | | | | | | | | | |
| Defense | 34.3 | 327.7 | 720.6 | 1,082.6 | 296.3 | 120.1 | 55.1 | 1,554.1 | | |
| Energy | 1.3 | 5.2 | 0.3 | 6.8 | 49.2 | 9.8 | 19.4 | 85.2 | | |
| Postal Service | 10.3 | 4.6 | 0.7 | 15.6 | 40.5 | 2.5 | 0.6 | 59.2 | | |
| General Services Administration | 0.2 | 2.7 | 0 | 2.9 | 29.3 | 4.9 | 6.1 | 43.0 | | |
| Veterans Administration | 0.6 | 5.6 | * | 6.2 | 16.6 | 14.6 | 1.8 | 39.2 | | |
| Transportation | 1.5 | 7.8 | 4.7 | 14.0 | 12.9 | 1.3 | 0.3 | 28.5 | | |
| NASA | 0.4 | 1.8 | 1.2 | 3.4 | 17.9 | 3.9 | 1.2 | 26.4 | | |
| Agriculture | 4.6 | 1.4 | 0.5 | 6.6 | 3.4 | 2.0 | * | 11.9 | | |
| Interior | 2.6 | 2.9 | 0.7 | 6.1 | 4.1 | 2.0 | 0.1 | 12.3 | | |
| Health and Human Services | 0.7 | 2.8 | 0.1 | 3.7 | 3.9 | 1.6 | 0.1 | 9.3 | | |
| Labor | 0.2 | 0.2 | 0 | 0.4 | 0.4 | 0.8 | 0 | 1.6 | | |
| Other ³ | 3.9 | 2.8 | 0.2 | 6.9 | 4.9 | 0.8 | 0.4 | 13.1 | | |
| Total | 60.8 | 365.2 | 729.0 | 1,155.0 | 479.4 | 164.3 | 85.1 | 1,868.8 | | |
| 1984^p | | | | | | | | | | |
| Defense | 25.9 | 316.2 | 690.3 | 1,032.4 | 326.2 | 115.0 | 50.5 | 1,524.1 | | |
| Energy | 1.4 | 3.7 | 0.6 | 5.8 | 62.2 | 7.1 | 20.5 | 95.6 | | |
| Postal Service | 9.9 | 2.9 | 0.2 | 12.9 | 32.0 | 4.8 | 0.7 | 50.5 | | |
| General Services Administration | 0.1 | 1.1 | 0 | 1.2 | 29.4 | 3.3 | 4.2 | 38.0 | | |
| Veterans Administration | 0.5 | 2.5 | * | 3.1 | 21.3 | 14.3 | 1.3 | 40.0 | | |
| Transportation | 1.3 | 7.8 | 4.8 | 14.0 | 13.1 | 1.2 | 0.3 | 28.6 | | |
| NASA | 0.3 | 0.8 | 1.5 | 2.6 | 17.2 | 2.5 | 0.6 | 23.0 | | |
| Agriculture | 4.3 | 0.7 | 0.4 | 5.3 | 4.5 | 1.6 | * | 11.5 | | |
| Interior | 2.2 | 1.8 | 0.8 | 4.8 | 4.7 | 1.8 | 0.5 | 11.8 | | |
| Health and Human Services | 0.4 | 2.6 | 0.1 | 3.1 | 6.3 | 1.5 | * | 10.9 | | |
| Labor | 0.1 | 0.5 | 0.1 | 0.7 | 2.4 | 0.9 | 0.1 | 4.1 | | |
| Other ³ | 2.9 | 1.7 | 0.3 | 4.9 | 7.7 | 1.1 | 0.1 | 13.9 | | |
| Total | 49.4 | 342.2 | 699.1 | 1,090.8 | 527.1 | 155.0 | 78.9 | 1,851.7 | | |

^p = preliminary.
* Less than 50 billion Btu.

¹ Includes aviation gasoline, jet fuel, and liquefied petroleum gases.
² Includes purchased steam.
³ Includes Department of Commerce, Panama Canal Commission, Tennessee Valley Authority, National Science Foundation, Department of Housing and Urban Development, Department of State, Department of Treasury, Office of Personnel Management, Interstate Commerce Commission, Small Business Administration, Federal Communications Commission, Civil Aeronautics Board, 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 1984*, Table 9.

Table 40. Average Retail Price of Transportation Fuel (¢/gal.), 1974-1984

| Year | Aviation Fuels | | | Highway Fuels | | | | Railroad Fuel | | Marine |
|------|-------------------|----------|---------|----------------|----------|--------------------|---------------|---------------|--------------------|--------|
| | Aviation Gasoline | Jet Fuel | | Motor Gasoline | | Truck No. 2 Diesel | Coal (\$/ton) | Diesel | Bunker 'C' Fuel | |
| | Naphtha* | Kerosene | Regular | Premium | Unleaded | | | | | |
| 1974 | n/a | n/a | n/a | 53.2 | 56.9 | n/a | n/a | 26.59 | n/a | n/a |
| 1975 | 41.1 | 30.7 | 29.8 | 56.7 | 60.9 | 57.1 | n/a | 30.00 | 16.90 | 24.66 |
| 1976 | 43.1 | 31.5 | 31.2 | 59.0 | 63.6 | 61.4 | 34.7 | 32.38 | 23.22 | 24.83 |
| 1977 | 47.7 | 35.0 | 35.8 | 62.2 | 67.4 | 65.6 | 39.3 | 36.38 | 33.14 | 27.74 |
| 1978 | 51.6 | 37.5 | 38.7 | 62.6 | 69.4 | 67.0 | 37.7 | 37.90 | 36.86 | 25.74 |
| 1979 | 68.9 | 52.3 | 54.7 | 85.7 | 92.2 | 90.3 | 58.5 | 57.58 | 32.99 | 35.91 |
| 1980 | 108.4 | 88.2 | 86.8 | 119.1 | 128.1 | 124.5 | 81.8 | 83.00 | 55.65 | 47.11 |
| 1981 | 130.3 | 105.7 | 102.4 | 131.1 | 147.0 | 137.8 | 99.5 | 100.23 | 58.89 ^e | 62.66 |
| 1982 | 131.2 | 97.7 | 96.3 | 122.2 | 141.5 | 129.6 | 94.2 | 95.43 | 63.27 ^e | 56.21 |
| 1983 | 125.5 | n/a | 87.8 | 115.7 | 138.3 | 124.1 | 82.6 | 82.72 | 63.67 ^e | 51.43 |
| 1984 | 123.4 | n/a | 84.2 | 112.9 | 136.6 | 121.2 | 82.3 | n/a | n/a | n/a |

n/a = not available.

^e = estimate.

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

Source: Railroad Fuel, Diesel: 1975-1982: AAR, *Statistics of Railroads of Class I*, 1983, p. 15.

1974/1983: *Ibid.*, *Railroad Ten-Year Trends*, 1984, Table II-A-6.

1984: not available.

Railroad Fuel, Coal: 1974: not available.

1975-1980: AAR, *Statistics of Railroads of Class I*, 1983, p. 15.

1981-1983: U.S. DOC, *Survey of Current Business*, 1984, estimated by Transportation Policy Associates.

1984: not available.

Marine: 1974: not available.

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

1979-1983: *Platt's Oil Price Handbook*; estimated by Transportation Policy Associates.

1984: not available.

1974: U.S. DOE/EIA, *Monthly Energy Review*, 1984.

1975: *Ibid.*, *Monthly Energy Review*, 1980.

1976-1984: *Ibid.*, 1984, pp. 96 and 99.

**Table 42. Price Trend of Gasoline vs. Other Consumer Goods and Services
(at 5-Year Intervals 1955-1970 and Annually 1971-1984)**

| 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 ^r | |
| 1971 | 25.20 | 11.23 | 36.43 | 121.3 | 118.4 | 115.2 | 119.8 | 106.3 | 122.9 ^r | |
| 1972 | 24.46 | 11.67 | 36.13 | 125.3 | 123.5 | 119.2 | 122.3 | 107.6 | 126.5 ^r | |
| 1973 | 26.88 | 11.94 | 38.83 | 133.1 | 141.4 | 124.3 | 126.8 | 118.1 | 130.0 ^r | |
| 1974 | 40.41 | 12.00 | 52.41 | 147.7 | 161.7 | 130.6 | 136.2 | 159.9 | 139.8 | |
| 1975 | 45.44 | 11.77 | 57.22 | 161.2 | 175.4 | 137.3 | 142.3 | 170.8 | 152.2 ^r | |
| 1976 | 47.44 | 12.03 | 59.47 | 170.5 | 180.8 | 144.7 | 147.6 | 100.0 | 159.8 ^r | |
| 1977 | 50.70 | 12.37 | 65.20 | 181.5 | 192.2 | 153.5 | 154.2 | 106.9 ^r | 167.7 ^r | |
| 1978 | 53.09 | 12.62 | 68.20 | 195.4 | 211.4 | 164.0 | 159.6 | 111.8 ^r | 176.6 | |
| 1979 | 74.33 | 13.46 | 88.20 | 217.4 | 234.5 | 176.0 | 166.6 | 150.4 ^r | 188.5 | |
| 1980 | 107.35 | 14.37 | 122.10 | 246.8 | 254.6 | 191.6 | 178.4 | 210.0 ^r | 205.3 | |
| 1981 | 122.33 ^e | 12.97 ^e | 135.30 | 272.4 | 274.6 | 208.2 | 186.9 | 234.4 ^r | 221.4 | |
| 1982 | 108.11 ^e | 14.09 ^e | 122.20 | 289.1 | 285.7 | 224.0 | 191.8 | 224.9 ^r | 235.8 | |
| 1983 | n/a | 20.23 ^e | 115.73 | 298.4 | 291.7 | 236.9 | 196.5 | 217.8 ^r | 246.0 | |
| 1984 | n/a | n/a | 117.90 | 311.1 | 302.9 | 249.3 | 200.2 | 216.3 | 255.1 | |

n/a = not available.

r = revised.

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.

1981-1984: U.S. DOL: Bureau of Labor Statistics, personal communication.

Price Indexes of Gasoline/Consumer Items: 1955-1984: U.S. DOL: Bureau of Labor Statistics, *Consumer Price Index, All Urban Consumers*, U.S. City Averages.

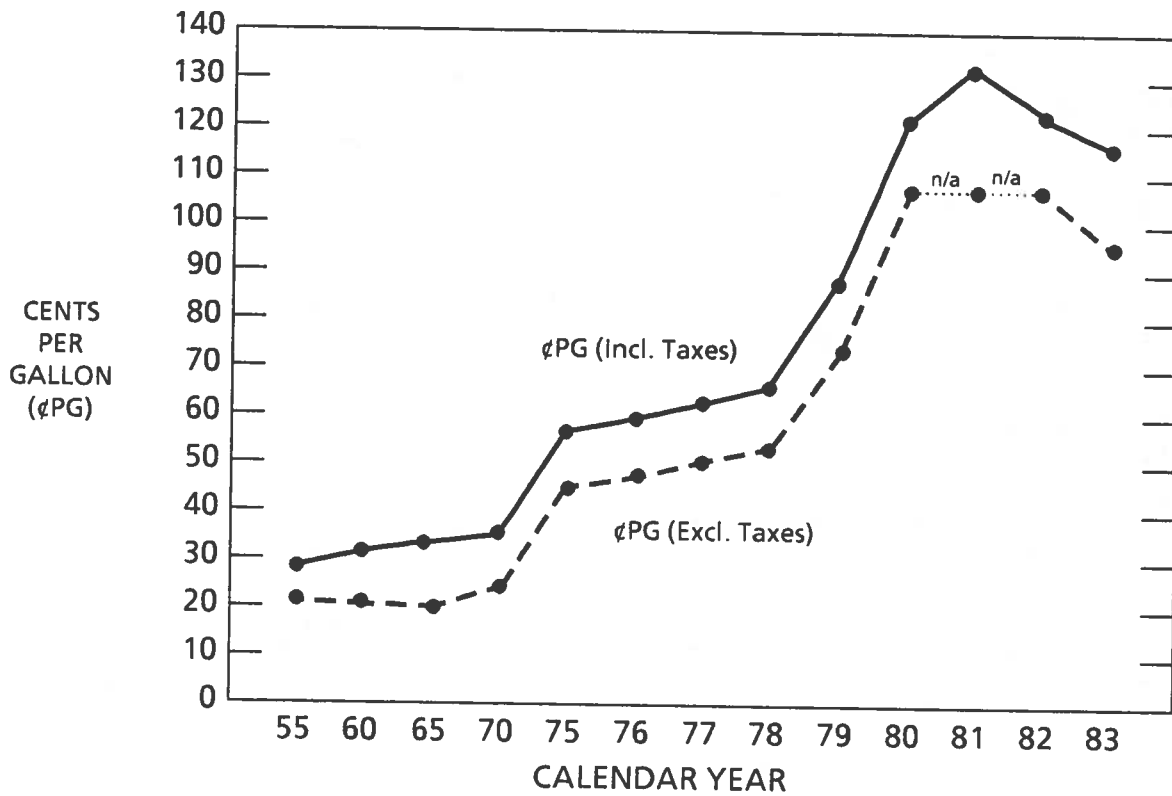


Figure 25. Price Trend of Regular Grade Gasoline Prices, 1955-1983

n/a = not available.
 Source: See Appendix A, p. A-12.

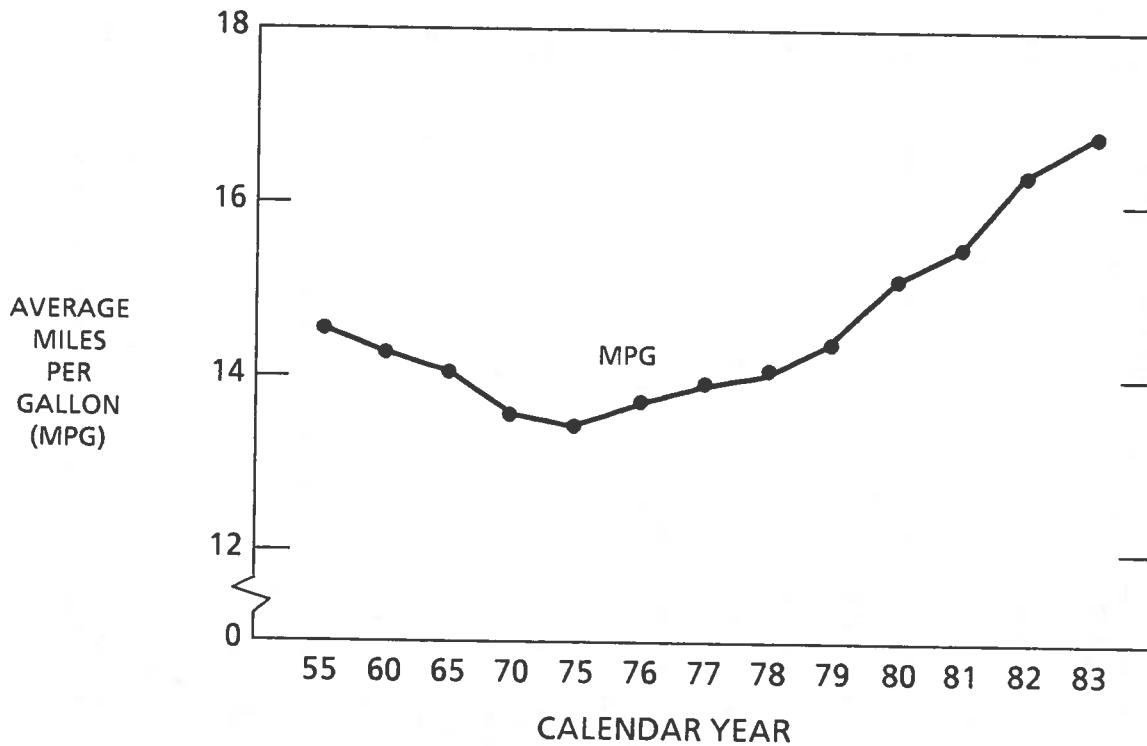


Figure 26. Average Fuel Efficiency of U.S. Passenger Cars, 1955-1983

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

Table 45. Model Year Sales, Market Shares, and Sales-Weighted Fuel Efficiencies of Domestic and Import Light Trucks, Model Years 1978-1984

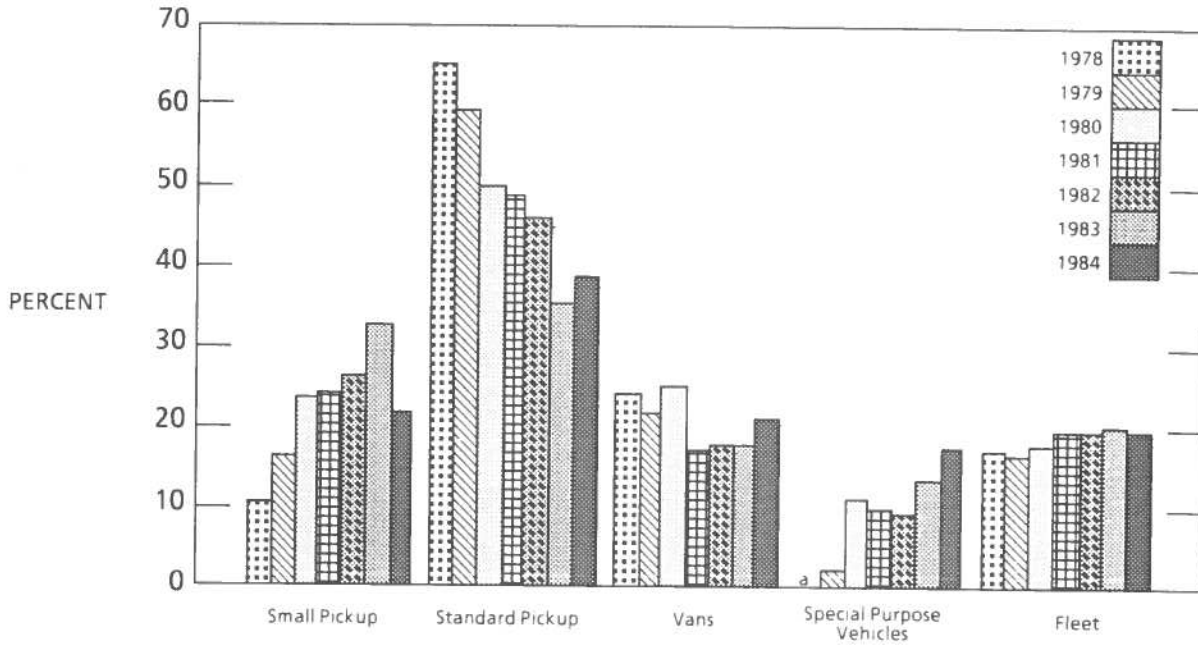
| | Domestic and Domestic-Sponsored | | | | | | | Import | | | | | | |
|--------------------------------|---------------------------------|-------------------|-------------------|-------------------|------------------------|------------------------|-----------|-------------------|-------------------|-------------------|---------|--------------------|---------------------|---------|
| | 1978 ^r | 1979 ^r | 1980 ^r | 1981 | 1982 | 1983 | 1984 | 1978 ^r | 1979 ^r | 1980 ^r | 1981 | 1982 | 1983 | 1984 |
| Small pickup | | | | | | | | | | | | | | |
| Total sales, units | 132,866 | 214,889 | 230,214 | 178,050 | 276,562 | 476,435 ^r | 508,595 | 175,924 | 236,659 | 286,198 | 294,561 | 302,701 | 411,142 | 266,513 |
| Market share, % | 4.9 | 8.6 | 12.0 | 10.7 | 14.9 ^r | 20.9 ^r | 17.1 | 90.0 | 90.8 | 94.2 | 95.8 | 95.3 ^r | 94.2 ^r | 46.3 |
| Fuel economy, mpg | 27.8 | 25.5 | 26.2 | 26.3 ^r | 27.4 ^r | 26.2 ^r | 24.7 | 26.4 | 22.1 | 25.1 | 29.3 | 28.7 ^r | 28.5 ^r | 31.1 |
| Standard pickup | | | | | | | | | | | | | | |
| Total sales, units | 1,886,782 | 1,630,362 | 1,115,248 | 967,242 | 1,000,772 ^r | 958,408 | 1,151,696 | n/a | n/a | n/a | n/a | n/a | n/a | 226,734 |
| Market share, % | 70.2 | 65.3 | 58.3 | 57.9 | 54.0 ^r | 42.0 ^r | 38.8 | n/a | n/a | n/a | n/a | n/a | n/a | 39.4 |
| Fuel economy, mpg | 16.6 | 15.8 | 17.0 | 18.5 | 18.4 ^r | 18.2 ^r | 17.2 | n/a | n/a | n/a | n/a | n/a | n/a | 27.2 |
| Vans | | | | | | | | | | | | | | |
| Total sales, units | 667,822 | 580,883 | 328,065 | 327,730 | 379,110 | 484,349 ^r | 692,472 | 19,476 | 18,163 | 13,649 | 11,007 | 11,964 | 13,645 ^r | 61,114 |
| Market share, % | 24.8 | 23.3 | 17.2 | 19.6 | 20.5 | 21.2 ^r | 18.4 | 10.0 | 7.0 | 4.5 | 3.6 | 3.8 | 3.1 | 10.6 |
| Fuel economy, mpg | 16.4 | 14.9 | 16.3 | 17.4 ^r | 17.0 ^r | 17.2 ^r | 16.3 | 19.5 | 17.9 | 19.6 | 18.8 | 22.5 | 20.9 ^r | 23.2 |
| Special purpose vehicle | | | | | | | | | | | | | | |
| Total sales, units | n/a | 71,662 | 239,262 | 197,679 | 196,034 ^r | 363,144 ^r | 618,691 | n/a | 5,888 | 3,901 | 2,051 | 2,850 ^r | 11,709 ^r | 21,506 |
| Market share, % | n/a | 2.9 | 12.5 | 11.8 | 10.6 ^r | 15.9 ^r | 20.8 | n/a | 2.3 | 1.3 | 0.7 | 0.9 ^r | 2.7 ^r | 3.7 |
| Fuel economy, mpg | n/a | 17.1 | 15.4 | 17.7 | 18.1 ^r | 20.4 | 20.0 | n/a | 13.5 | 13.5 | 14.0 | 14.0 | 20.6 ^r | 20.9 |
| Fleet | | | | | | | | | | | | | | |
| Total sales, units | n/a | 2,497,796 | 1,912,789 | 1,670,701 | 1,852,478 ^r | 2,282,336 ^r | 2,971,454 | n/a | n/a | n/a | n/a | n/a | n/a | 575,867 |
| Market share, % | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Fuel economy, mpg | 16.9 | 16.2 | 17.4 | 18.8 | 19.0 ^r | 19.5 ^r | 18.8 | 25.5 | 21.4 | 24.4 | 28.5 | 28.1 ^r | 27.9 ^r | 28.1 |

n/a = not available.

r = revised.

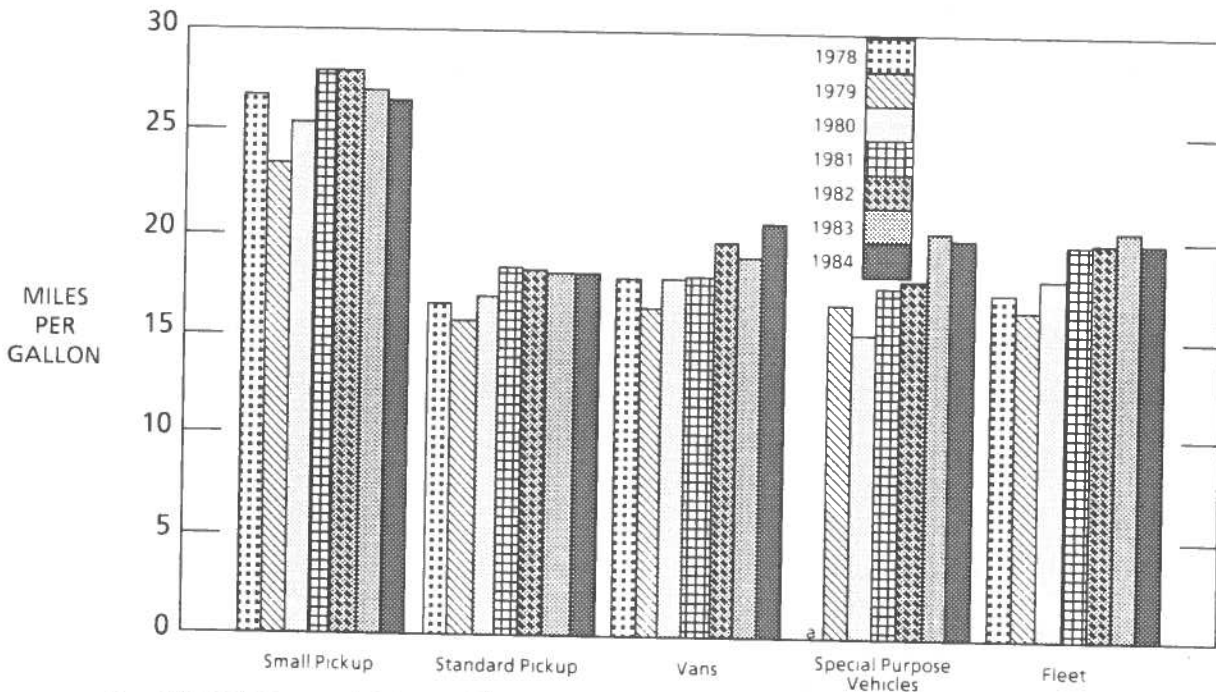
Source: Oak Ridge National Laboratory, *Motor Vehicle MPG and Market Shares Report*, 1984, Tables 23 and 24.

Figure 29. Market Shares of Domestic and Import Light Trucks by EPA Size Classification, 1978-1984



a = EPA fuel economy data for special purpose vehicles are not available for model year 1978.
 Source: Oak Ridge National Laboratory, *Motor Vehicle MPG and Market Shares Report*, 1984, p. 41.

Figure 30. Fuel Economies of Domestic and Import Light Trucks by EPA Size Classification, 1978-1984



a = EPA fuel economy data for special purpose vehicles are not available for model year 1978.
 Source: Oak Ridge National Laboratory, *Motor Vehicle MPG and Market Shares Report*, 1984, p. 48.

Table 47. Estimated Cost of Owning and Operating an Intermediate Size 1984 Model Automobile, Including Fuel (Total costs in dollars, costs per mile in cents)¹

| Item | First Year (14,500 miles) | | Second Year (13,700 miles) | | Totals & Averages for Twelve Years (120,000 miles) | |
|---|------------------------------|------------------|-------------------------------|------------------|--|------------------|
| | Total Cost | Cost Per Mile | Total Cost | Cost Per Mile | Total Cost | Cost Per Mile |
| Cost Excluding Taxes: | | | | | | |
| Depreciation | 2,385.00 | 16.45 | 1,401.00 | 10.23 | 10,320.00 | 8.60 |
| Scheduled Maintenance | (65.85) | (.45) | (108.75) | (.79) | (1,169.40) | (.97) |
| Nonscheduled Repairs and Maintenance | <u>(11.34)</u> | <u>(.08)</u> | <u>(47.79)</u> | <u>(.35)</u> | <u>(4,254.55)</u> | <u>(3.55)</u> |
| Total Repairs and Maintenance | 77.19 | .53 | 156.54 | 1.14 | 5,423.95 | 4.52 |
| Replacement Tires | 15.43 | .11 | 14.54 | .11 | 637.58 | .53 |
| Accessories | 14.09 | .10 | 13.45 | .10 | 197.88 | .16 |
| Gasoline | 803.62 | 5.54 | 759.28 | 5.54 | 6,650.64 | 5.54 |
| Oil | 8.75 | .06 | 15.75 | .12 | 161.00 | .13 |
| Insurance | 732.00 | 5.05 | 732.00 | 5.34 | 6,691.00 | 5.58 |
| Parking and Tolls | <u>136.56</u> | <u>.94</u> | <u>128.66</u> | <u>.94</u> | <u>1,128.60</u> | <u>.94</u> |
| Total | 4,172.64 | 24.78 | 3,221.22 | 23.52 | 31,210.65 | 26.00 |
| Taxes and Fees: | | | | | | |
| State: | | | | | | |
| Gasoline | 93.20 | .64 | 88.06 | .64 | 771.34 | .64 |
| Registration | 20.00 | .14 | 20.00 | .14 | 240.00 | .20 |
| Titling | 516.00 | 3.56 | - | - | 516.00 | .43 |
| Operating Cost Sales Tax ² | (.10) | - | (.68) | (.01) | (129.92) | (.11) |
| Nonoperating Cost Sales Tax | <u>(1.34)</u> | <u>(.01)</u> | <u>(3.16)</u> | <u>(.02)</u> | <u>(32.54)</u> | <u>(.02)</u> |
| Total Sales Tax | <u>1.44</u> | <u>.01</u> | <u>3.84</u> | <u>.03</u> | <u>162.46</u> | <u>.14</u> |
| Subtotal | 630.64 | 4.35 | 111.90 | .82 | 1,689.80 | 1.41 |
| Federal: | | | | | | |
| Gasoline | <u>62.14</u> | <u>.43</u> | <u>58.71</u> | <u>.43</u> | <u>514.20</u> | <u>.43</u> |
| Total Taxes | 692.78 | 4.78 | 170.61 | 1.24 | 2,204.00 | 1.84 |
| Operating Costs | 1,131.14 | 7.80 | 1,113.47 | 8.13 | 14,247.83 | 11.87 |
| Ownership Costs | 3,734.28 | 25.76 | 2,278.36 | 16.63 | 19,166.82 | 15.97 |
| Total of All Costs | 4,865.42 | 33.56 | 3,391.83 | 24.76 | 33,414.65 | 27.84 |

¹ This estimate covers the total cost of a medium priced, intermediate size four-door sedan, purchased for \$10,320 and operated 120,000 miles over a 12-year period. Baltimore area prices, considered to be in the middle range, were used.

² Where costs per mile are less than .005 cent, a dash (-) appears.

Source: U.S. DOT/FHWA, *Cost of Owning and Operating Automobiles and Vans, 1984*.

Table 49. Estimated Cost of Owning and Operating a Subcompact Size 1984 Model Automobile, Including Fuel (Total costs in dollars, costs per mile in cents)¹

| Item | First Year (14,500 miles) | | Second Year (13,700 miles) | | Totals & Averages for Twelve Years (120,000 miles) | |
|---|------------------------------|------------------|-------------------------------|------------------|--|------------------|
| | Total Cost | Cost Per Mile | Total Cost | Cost Per Mile | Total Cost | Cost Per Mile |
| Cost Excluding Taxes: | | | | | | |
| Depreciation | 903.00 | 6.23 | 888.00 | 6.48 | 7,024.00 | 5.85 |
| Scheduled Maintenance | (27.65) | (.19) | (73.30) | (.54) | (939.84) | (.78) |
| Nonscheduled Repairs and Maintenance | <u>(8.50)</u> | <u>(.06)</u> | <u>(39.95)</u> | <u>(.29)</u> | <u>(4,440.00)</u> | <u>(3.70)</u> |
| Total Repairs and Maintenance | 36.15 | .25 | 113.25 | .83 | 5,379.84 | 4.48 |
| Replacement Tires | 11.67 | .08 | 11.00 | .08 | 483.20 | .40 |
| Accessories | 14.62 | .10 | 13.95 | .10 | 202.21 | .17 |
| Gasoline | 625.07 | 4.31 | 590.61 | 4.31 | 5,172.70 | 4.31 |
| Oil | 7.00 | .05 | 14.00 | .10 | 147.00 | .12 |
| Insurance | 635.00 | 4.38 | 635.00 | 4.64 | 5,933.00 | 4.95 |
| Parking and Tolls | <u>136.56</u> | <u>.94</u> | <u>128.66</u> | <u>.94</u> | <u>1,128.60</u> | <u>.94</u> |
| Total | 2,369.07 | 16.34 | 2,394.47 | 17.48 | 25,470.55 | 21.22 |
| Taxes and Fees: | | | | | | |
| State: | | | | | | |
| Gasoline | 72.50 | .50 | 68.50 | .50 | 599.93 | .50 |
| Registration | 20.00 | .14 | 20.00 | .15 | 240.00 | .20 |
| Titling | 351.20 | 2.42 | - | - | 351.20 | .29 |
| Operating Cost Sales Tax ² | (.13) | - | (1.70) | (.01) | (159.06) | (.13) |
| Nonoperating Cost Sales Tax | <u>(1.33)</u> | <u>(.01)</u> | <u>(1.66)</u> | <u>(.01)</u> | <u>(38.76)</u> | <u>(.03)</u> |
| Total Sales Tax | <u>1.46</u> | <u>.01</u> | <u>3.36</u> | <u>.02</u> | <u>197.82</u> | <u>.17</u> |
| Subtotal | 445.16 | 3.07 | 91.86 | .67 | 1,388.95 | 1.16 |
| Federal: | | | | | | |
| Gasoline | <u>48.33</u> | <u>.33</u> | <u>45.67</u> | <u>.33</u> | <u>399.96</u> | <u>.33</u> |
| Total Taxes | 493.49 | 3.40 | 137.53 | 1.00 | 1,788.91 | 1.49 |
| Operating Costs | 909.76 | 6.27 | 900.09 | 6.57 | 12,530.45 | 10.44 |
| Ownership Costs | 1,952.80 | 13.47 | 1,631.91 | 11.91 | 14,729.01 | 12.27 |
| Total of All Costs | 2,862.56 | 19.74 | 2,532.00 | 18.48 | 27,259.46 | 22.71 |

¹ This estimate covers the total cost of a medium priced, subcompact size four-door sedan, purchased for \$7,024 and operated 120,000 miles over a 12-year period. Baltimore area prices, considered to be in the middle range, were used.

² Where costs per mile are less than .005 cent, a dash (-) appears.












Source: U.S. DOT/FHWA, *Cost of Owning and Operating Automobiles and Vans, 1984*.

**Table 51. Estimated Gasoline Cost per Mile at Various Gasoline Prices, 1984
(cents per mile, excluding taxes)**

| VEHICLE | GASOLINE PRICE PER GALLON | | | | |
|------------------|---------------------------|--------|--------|--------|--------|
| | \$1.30 | \$1.35 | \$1.40 | \$1.45 | \$1.50 |
| Large Car | 6.32¢ | 6.62¢ | 6.91¢ | 7.21¢ | 7.50¢ |
| Intermediate Car | 5.12 | 5.36 | 5.59 | 5.83 | 6.07 |
| Compact Car | 4.13 | 4.33 | 4.52 | 4.71 | 4.90 |
| Subcompact Car | 3.98 | 4.17 | 4.35 | 4.54 | 4.72 |
| Passenger Van | 8.27 | 8.65 | 9.04 | 9.42 | 9.81 |

Source: U.S. DOT/FHWA, *Cost of Owning and Operating Automobiles and Vans, 1984*.

Table 52. Estimated Cost of Owning and Operating 1984 Model Automobiles and Vans, Including Fuel

| SUBURBAN-BASED OPERATION | | | | | | | |
|---|---|---|--|---|---|--|-----------------------|
| TOTAL COSTS: CENTS PER MILE* | | | | | | | |
| SIZE |  ORIGINAL VEHICLE COST DEPRECIATED |  MAINTENANCE, ACCESSORIES, PARTS & TIRES |  GAS & OIL (EXCLUDING TAXES) |  PARKING & TOLLS |  INSURANCE |  STATE & FEDERAL TAXES | TOTAL COST |
| LARGE WITH STANDARD EQUIP- MENT, WEIGHT MORE THAN 3,500 LBS. EMPTY  | 9.6 | 6.0 | 7.0 | 0.9 | 4.9 | 2.2 | 30.6 |
| INTERMEDIATE WEIGHT LESS THAN 3,500 LBS. EMPTY  | 8.6 | 5.2 | 5.7 | 0.9 | 5.6 | 1.8 | 27.8 |
| COMPACT WEIGHT LESS THAN 3,000 LBS. EMPTY  | 7.3 | 4.6 | 4.6 | 0.9 | 4.3 | 1.6 | 23.3 |
| SUBCOMPACT WEIGHT LESS THAN 2,500 LBS. EMPTY  | 5.9 | 5.1 | 4.4 | 0.9 | 5.0 | 1.4 | 22.7 |
| PASSENGER VAN WEIGHT LESS THAN 5,000 LBS. EMPTY  | 10.7 | 6.9 | 9.1 | 0.9 | 8.9 | 2.7 | 39.2 |

* Based on operations of 120,000 miles over 12 years.

Source: U.S. Department of Transportation, Federal Highway Administration, *Cost of Owning and Operating Automobiles and Vans, 1984.*

Part 2. Energy Intensiveness

Table 54. Energy Intensiveness of Trucks, 1973-1983

| Year | Vehicle Miles (millions) | | | Fuel Consumed (million gal.) | | | Btu/Vehicle-Mile | | |
|-------------------|--------------------------|--------------|------------|------------------------------|--------------|------------|--------------------|--------------|------------|
| | Single-Unit Trucks | Combinations | All Trucks | Single-Unit Trucks | Combinations | All Trucks | Single-Unit Trucks | Combinations | All Trucks |
| 1973 | 219,128 | 48,019 | 267,147 | 22,755 | 8,860 | 31,615 | 12,980 | 25,592 | 15,247 |
| 1974 | 211,460 | 56,059 | 267,519 | 21,125 | 10,101 | 31,226 | 12,488 | 24,992 | 15,108 |
| 1975 | 218,894 | 55,560 | 274,454 | 21,868 | 9,764 | 31,632 | 12,488 | 24,375 | 14,894 |
| 1976 | 248,795 | 59,155 | 307,950 | 24,915 | 10,975 | 35,890 | 12,518 | 25,733 | 15,056 |
| 1977 | 266,000 | 63,465 | 329,465 | 26,255 | 11,709 | 37,964 | 12,338 | 25,590 | 14,890 |
| 1978 | 280,578 | 67,328 | 347,906 | 27,780 | 12,491 | 40,271 | 12,376 | 25,732 | 14,961 |
| 1979 | 294,000 | 66,500 | 360,500 | 28,544 | 12,315 | 40,859 | 12,136 | 25,686 | 14,635 |
| 1980 | 324,570 | 60,000 | 384,570 | 29,241 | 10,909 | 40,150 | 11,261 | 25,218 | 13,439 |
| 1981 | 366,090 | 59,037 | 425,127 | 30,903 | 10,734 | 41,637 | 10,552 | 25,218 | 12,242 |
| 1982 ^r | 332,509 | 61,700 | 394,219 | 28,195 | 11,221 | 39,416 | 10,599 | 25,225 | 12,498 |
| 1983 | 342,484 | 66,030 | 408,514 | 28,853 | 12,005 | 40,858 | 10,531 | 25,217 | 12,502 |

^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*, annual issues, Table VM-1.

Table 56. Energy Intensiveness of Class I Intercity Buses, 1974-1983

| Year | Revenue Passenger-Miles (10 ⁶) | Fuel Consumed (million gal.) | Btu/ Passenger-Mile |
|------|--|------------------------------|---------------------|
| 1974 | 19,500 | 140.7 | 1,001 |
| 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 | 15,830 | 123.0 | 1,078 |
| 1982 | 15,890 | 123.1 | 1,075 |
| 1983 | 14,170 | 104.6 | 1,024 |

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

Source: Revenue Passenger-Miles:

1974 - 1980: ABA, *Bus Facts*, 1982, p.5.

1981 - 1983: ABA, personal communication.

Fuel Consumed:

1974 - 1983: ABA, personal communication.

Table 57. Energy Intensiveness of Class I Railroad Freight, 1973-1983

| Year | Revenue Freight Ton-Miles (millions) | Fuel Consumed* (million gal.) | Btu/ Revenue Freight Ton-Mile |
|------|--------------------------------------|-------------------------------|-------------------------------|
| 1973 | 851,809 | 3,664 | 597 |
| 1974 | 850,961 | 3,643 | 594 |
| 1975 | 754,252 | 3,314 | 609 |
| 1976 | 794,059 | 3,461 | 605 |
| 1977 | 826,292 | 3,537 | 594 |
| 1978 | 858,105 | 3,507 | 567 |
| 1979 | 901,059 | 3,637 | 559 |
| 1980 | 918,958 | 3,567 | 538 |
| 1981 | 910,169 | 3,429 | 523 |
| 1982 | 797,759 | 2,872 | 499 |
| 1983 | 828,275 | 2,872 | 481 |

* 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:

1973-1982: *Statistics of Railroads of Class I*, 1983, p. 6, line 50.

1983: *Railroad Ten-Year Trends*, 1984, Table III-D-3.

Fuel Consumed:

1973-1982: *Statistics of Railroads of Class I*, 1983, p. 15, line 1.

1983: *Railroad Ten-Year Trends*, 1984, Table III-D-2.

| Year | Aircraft Miles (millions) | | Fuel Consumed (million gal.) | | Passenger-Miles (millions) | | Passenger Load Factor (%) | | Btu/Passenger-Mile | | |
|------|---------------------------|---------------------------|------------------------------|---------------------------|----------------------------|---------------------------|---------------------------|---------------------------|---------------------|---------------------------|------------------|
| | Domestic Operations | Inter-national Operations | Domestic Operations | Inter-national Operations | Domestic Operations | Inter-national Operations | Domestic Operations | Inter-national Operations | Domestic Operations | Inter-national Operations | Total Operations |
| 1973 | 2,018 | 379 | 8,354 | 2,345 | 130,720 | 43,900 | 31.6 | 37.5 | 8,628 | 7,211 | 8,271 |
| 1974 | 1,869 | 339 | 7,509 | 2,045 | 133,720 | 40,460 | 55.5 | 38.3 | 7,581 | 6,823 | 7,405 |
| 1975 | 1,885 | 310 | 7,558 | 1,949 | 136,000 | 37,320 | 54.6 | 52.3 | 7,502 | 7,050 | 7,405 |
| 1976 | 1,995 | 305 | 8,008 | 1,800 | 151,370 | 40,460 | 55.6 | 56.6 | 7,142 | 6,006 | 6,092 |
| 1977 | 2,078 | 319 | 8,417 | 1,851 | 163,220 | 42,860 | 55.8 | 56.4 | 6,962 | 5,830 | 6,726 |
| 1978 | 2,249 | 359 | 8,726 | 1,913 | 187,812 | 49,185 | 61.0 | 63.7 | 6,272 | 5,251 | 6,060 |
| 1979 | 2,471 | 388 | 9,376 | 1,993 | 212,701 | 57,018 | 62.8 | 63.8 | 5,951 | 4,719 | 5,690 |
| 1980 | 2,523 | 401 | 9,218 | 2,093 | 204,368 | 63,354 | 58.0 | 62.8 | 6,089 | 4,460 | 5,704 |
| 1981 | 2,442 | 356 | 8,555 | 2,033 | 201,435 | 58,629 | 57.4 | 63.7 | 5,733 | 4,681 | 5,496 |
| 1982 | 2,443 | 362 | 8,439 | 1,967 | 213,631 | 58,804 | 58.5 | 61.4 | 5,333 | 4,516 | 5,715 |
| 1983 | 2,539 | 367 | 8,673 | 1,998 | 231,515 | 62,681 | 59.9 | 64.3 | 5,057 | 4,303 | 4,897 |

Note: Heat equivalent factor used in Btu conversion is 5,670,000 Btu/barrel.

Source:

Aircraft Miles: 1973-1979: CAB, *Air Carrier Traffic Statistics*, 1980, pp. 5, 15, and similar tables in earlier editions.
1980-1983: *Ibid.*, annual issues, pp. 2 and 3.

Fuel Consumed:

1973-1975: CAB, *Handbook of Airline Statistics Supplement*, 1975, 1977, p. 5, Table 2.
1976-1979: *Ibid.*, *Fuel Cost and Consumption, Twelve Months Ended Dec. 31, 1980 and 1979*, Tables 2, 3, 4, 6, 7, and similar tables in earlier editions.
1980-1981: *Ibid.*, *Twelve Months Ended Dec. 31, 1982 and 1981*.

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

Passenger Miles:

1973-1979: CAB, *Air Carrier Traffic Statistics*, 1980, pp. 4, 5, and similar tables in earlier editions.
1980-1983: *Ibid.*, annual issues, pp. 2 and 3.

Passenger Load Factor:

1973-1979: CAB, *Air Carrier Traffic Statistics*, 1980, pp. 5, 15, and similar tables in earlier editions.
1980-1983: *Ibid.*, annual issues, pp. 2 and 3.

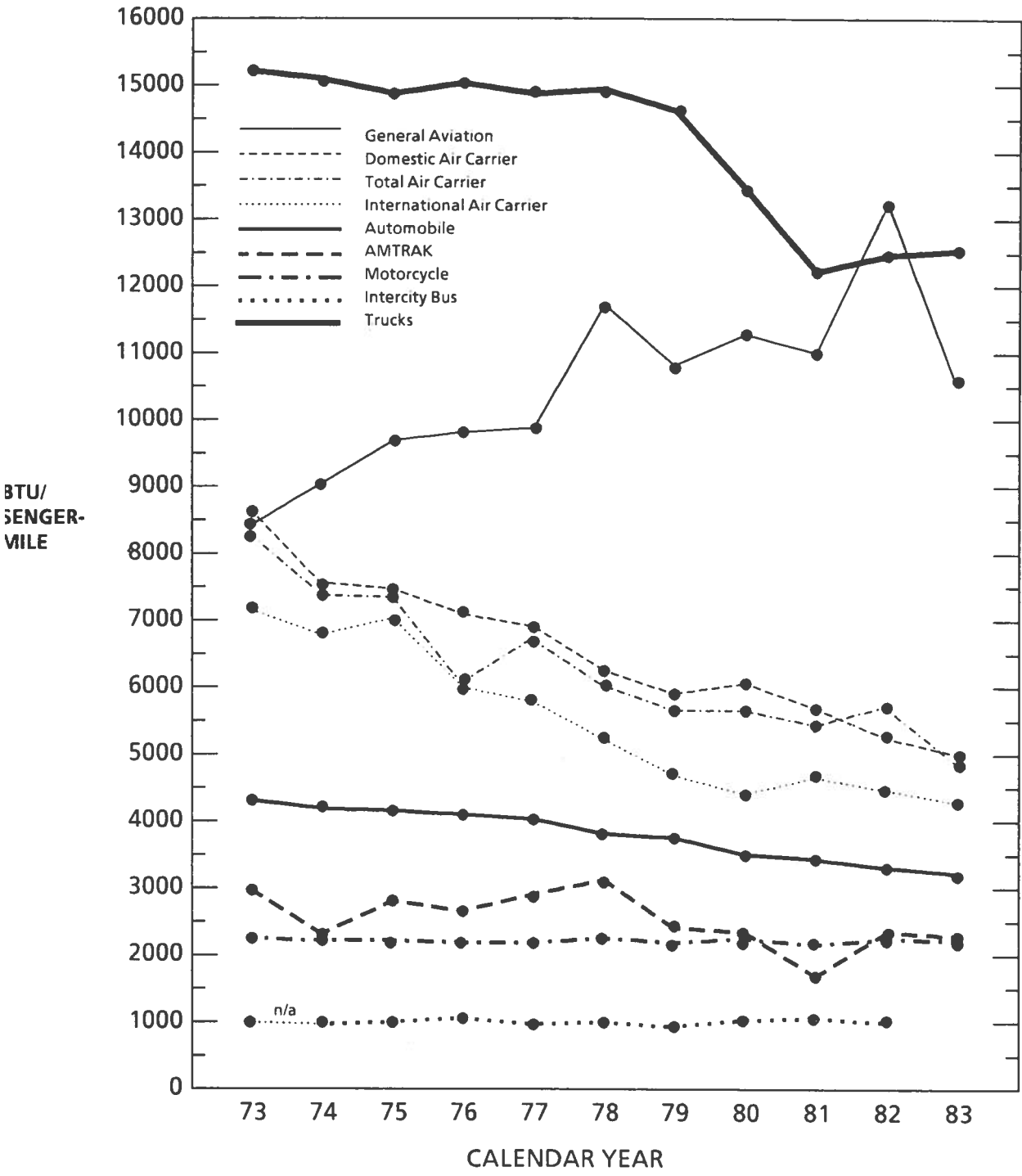
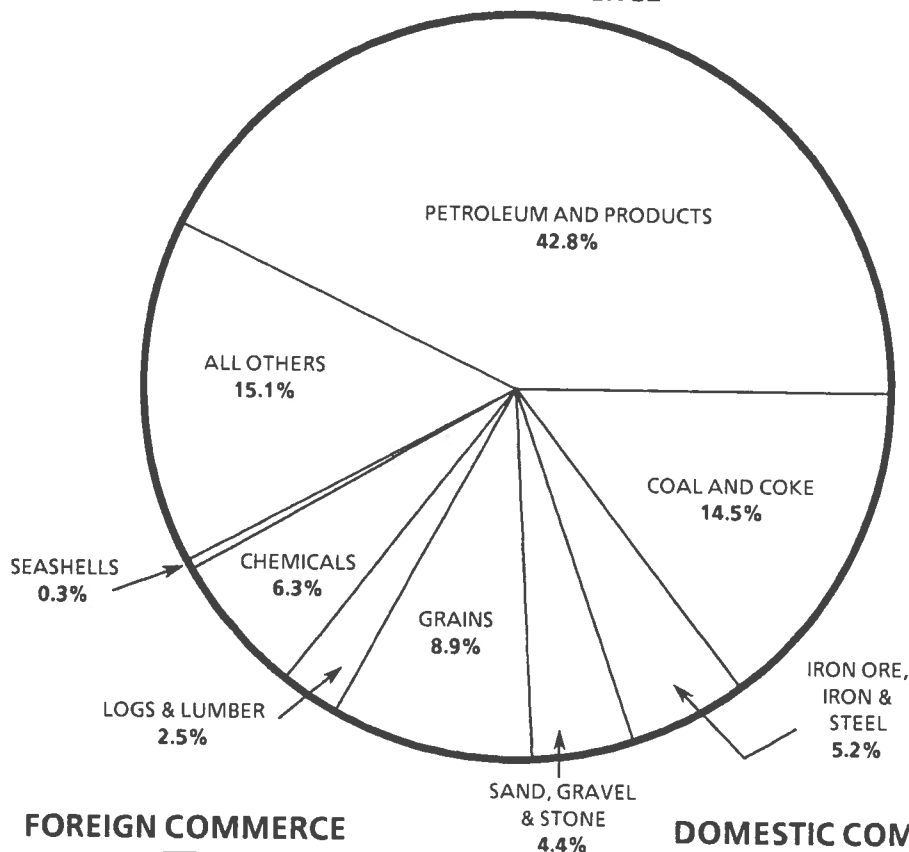


Figure 32. Energy Intensiveness by Passenger Mode, 1973-1983

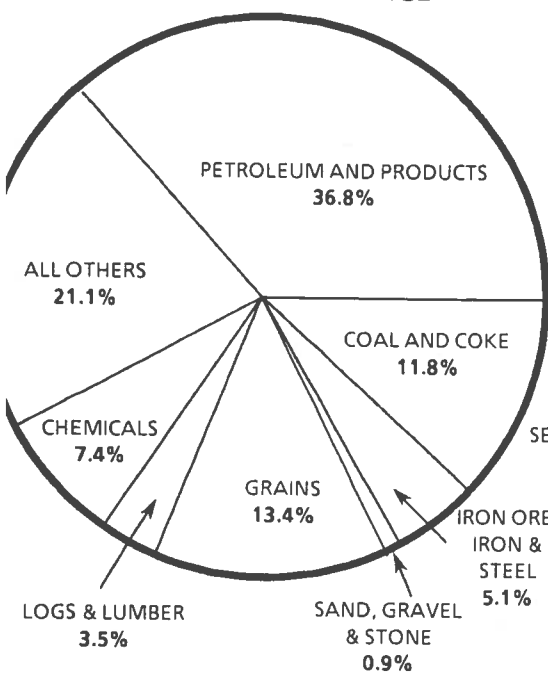
1 = not available.

Part 3. Energy Transport

TOTAL COMMERCE



FOREIGN COMMERCE



DOMESTIC COMMERCE

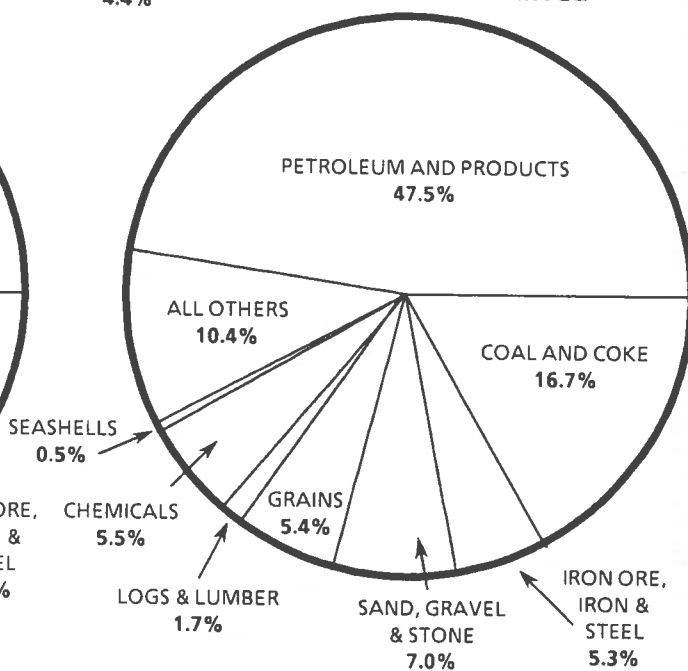


Figure 33. Principal Commodities Carried by Water, Calendar Year 1983

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

Table 63. Refined Petroleum Products Transported in the U.S., 1973-1983
(billions of ton-miles)

| Year | Pipelines | | Water Carriers | | Truckse | | Railroads | | Total Ton-Miles |
|------|--------------------|---------------------|----------------|---------------------|-----------|---------------------|-----------|---------------------|--------------------|
| | Ton-Miles | Percent of Total | Ton-Miles | Percent of Total | Ton-Miles | Percent of Total | Ton-Miles | Percent of Total | |
| 1973 | 205.0 | 42.7 | 238.0 | 49.5 | 23.7 | 4.9 | 13.7 | 2.9 | 480.4 |
| 1974 | 203.0 | 41.5 | 244.0 | 49.9 | 27.7 | 5.7 | 14.1 | 2.9 | 488.8 |
| 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 ^r | 51.5 | 184.2 | 41.1 | 20.7 | 4.6 | 12.5 | 2.8 | 448.0 ^r |
| 1983 | 223.7 ^p | 53.7 | 159.3 | 38.3 | 22.2 | 5.3 | 11.3 | 2.7 | 416.5 |

P = preliminary.
r = revised.
e = estimate.

Source: Association of Oil Pipelines, *Shifts in Petroleum Transportation*, 1985, Table 3.

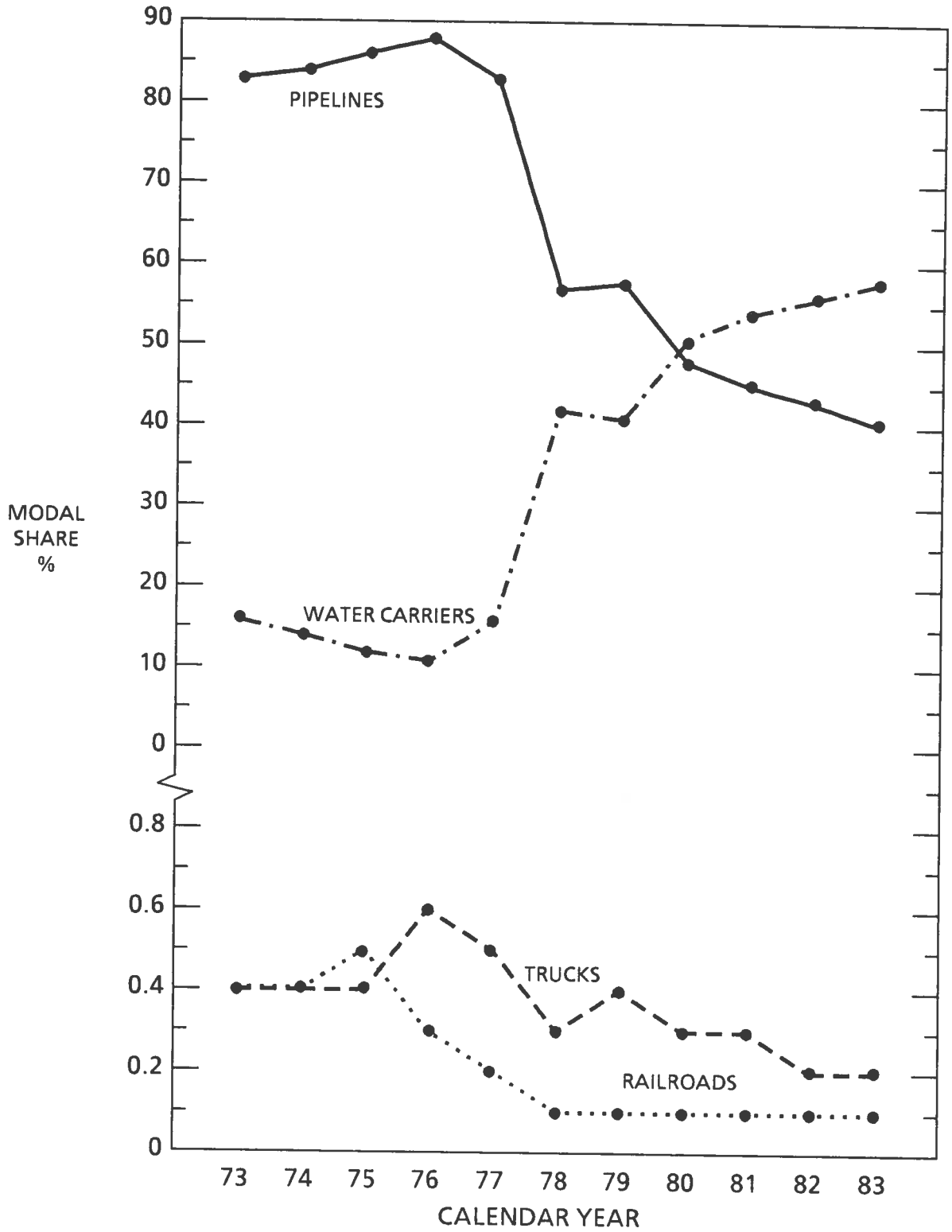


Figure 34. Crude Petroleum and Petroleum Products Transported in the U.S. by Modal Share, 1973-1983

**Table 66. U.S. Petroleum Pipeline Mileage (as of December 31)
(at 3-Year Intervals 1956-1965 and Annually 1970-1983)**

| Year | Crude-Oil Trunk Lines | | Refined-Oil Trunk Lines | | Total Trunk Lines | | Crude-Oil Gathering Lines | | Total Petroleum Pipelines | |
|------|-----------------------|------------------------|-------------------------|------------------------|----------------------|------------------------|---------------------------|------------------------|---------------------------|----------------------|
| | FERC* Lines | All Lines ¹ | FERC* Lines | All Lines ¹ | FERC* Lines | All Lines ¹ | FERC* Lines | All Lines ¹ | FERC* Lines | All Lines |
| 1956 | 61,885 | 78,594 | 29,465 | 36,420 | 91,350 | 115,014 | 51,336 | 73,526 | 142,686 | 188,540 |
| 1959 | 61,860 | 70,317 | 37,732 | 44,483 | 99,592 | 114,800 | 49,567 | 75,182 | 149,159 | 189,982 |
| 1962 | 61,702 | 70,355 | 45,288 | 53,200 | 106,990 | 123,555 | 48,063 | 76,988 | 155,053 | 200,543 |
| 1965 | 63,981 | 72,383 ^r | 50,791 | 61,443 ^r | 114,772 | 133,826 ^r | 46,640 | 77,041 ^r | 161,412 | 210,867 ^r |
| 1970 | 63,030 | 75,143 | 59,335 | 72,396 | 122,365 | 147,539 | 46,587 | 71,132 | 175,735 ² | 219,671 |
| 1971 | 60,946 | 75,512 ^r | 61,525 | 74,277 ^r | 122,471 | 149,789 ^r | 45,759 | 70,110 ^r | 174,722 ² | 219,899 |
| 1972 | 59,757 | 75,981 ^r | 64,701 | 76,158 ^r | 124,458 | 152,039 ^r | 42,893 | 69,088 ^r | 173,532 ² | 221,127 |
| 1973 | 57,435 | 76,250 | 64,919 ³ | 78,038 | 122,354 ³ | 154,288 | 41,655 | 69,247 | 170,691 ² | 223,535 |
| 1974 | 57,602 | 76,824 ^r | 68,609 ³ | 79,124 ^r | 126,211 ³ | 155,948 ^r | 41,577 | 68,764 ^r | 173,341 ² | 224,712 |
| 1975 | 54,658 | 77,398 ^r | 66,620 ³ | 80,210 ^r | 121,278 ³ | 157,608 ^r | 42,582 | 68,281 ^r | 172,680 ² | 225,889 |
| 1976 | 58,544 | 77,972 | 67,913 ³ | 81,296 | 126,457 ³ | 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 ^r |
| 1978 | 59,981 | 75,483 | 65,114 | 77,314 | 125,095 | 152,797 | 36,539 | 65,368 | 161,634 | 218,165 ^r |
| 1979 | 58,606 | 71,876 | 74,261 | 85,905 | 132,867 | 157,781 | 36,927 | 58,179 | 169,794 | 215,960 ^r |
| 1980 | 59,560 | 71,568 | 74,510 | 88,562 | 134,070 | 160,130 | 35,279 | 58,263 | 169,349 | 218,393 ^r |
| 1981 | 57,904 | 68,486 | 76,353 | 89,456 | 134,257 | 157,942 | 38,558 | 57,099 | 172,815 | 215,041 ^r |
| 1982 | 59,567 | 69,529 | 77,402 ^r | 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 |

^r = revised.

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

¹ Triennial Data.

² Total mileage includes pipelines classified as "other than owned" by the ICC. In 1967 "other than owned" pipeline mileage was 6,255 miles. Includes 273 miles of coal slurry pipeline.

³ FERC Lines: 1956-1976: 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: Penn Well Publishing Co., *Oil and Gas Journal*, 1984.

All Lines: 1956-1976: U.S. DOE, *Energy Data Reports, Crude Oil and Product Pipelines*, Triennial, 1977, Table 1.

1977-1983: Penn Well Publishing Co., *Oil and Gas Journal*, 1984 and previous issues.

Total Petroleum (All Lines):

1956-1965: TAA, *Transportation Facts and Trends*, 1978, p. 31; 1981, p. 13.

1970-1983: TPA, *Transportation in America*, 1985, p. 21.

Table 68. World Tanker Fleet By Size, 1973-1983
(million d.w.t.)

| Size | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------|--------------|--------------|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 10 - 25,000 d.w.t. | 22.6 | 21.9 | 19.7 | 17.5 | 16.1 | 14.8 | 14.2 | 14.1 | 13.8 | 13.5 | 13.0 |
| 25 - 45,000 d.w.t. | 29.5 | 30.5 | 28.8 | 27.3 | 26.6 | 24.6 | 24.2 | 24.6 | 26.0 | 27.2 | 27.4 |
| 45 - 65,000 d.w.t. | 22.4 | 22.6 | 21.9 | 19.9 | 18.2 | 16.1 | 15.3 | 16.1 | 16.6 | 16.1 | 15.3 |
| 65 - 125,000 d.w.t. | 41.6 | 46.4 | 51.2 | 54.4 | 54.2 | 50.8 | 51.2 | 52.5 | 55.4 | 51.8 | 48.4 |
| 125 - 205,000 d.w.t. | 14.8 | 18.0 | 23.6 | 28.7 | 32.3 | 33.3 | 33.4 | 33.0 | 31.2 | 30.2 | 28.8 |
| 205 - 285,000 d.w.t. | 78.2 | 105.5 | 125.9 ^r | 138.8 | 142.2 | 142.6 | 142.2 | 139.1 | 131.2 | 118.3 | 104.4 |
| 285,000 d.w.t. and over | 6.5 | 10.9 | 20.3 | 34.1 | 42.9 | 46.3 | 47.4 | 45.4 | 46.0 | 46.6 | 45.9 |
| Total | 215.6 | 255.8 | 291.4 | 320.7 | 332.5 | 328.5 | 327.9 | 324.8 | 320.2 | 303.7 | 283.2 |

^r = revised.

d.w.t. = deadweight tons.

Source: British Petroleum Co., *BP Statistical Review of the World Energy*, 1983, p. 18.

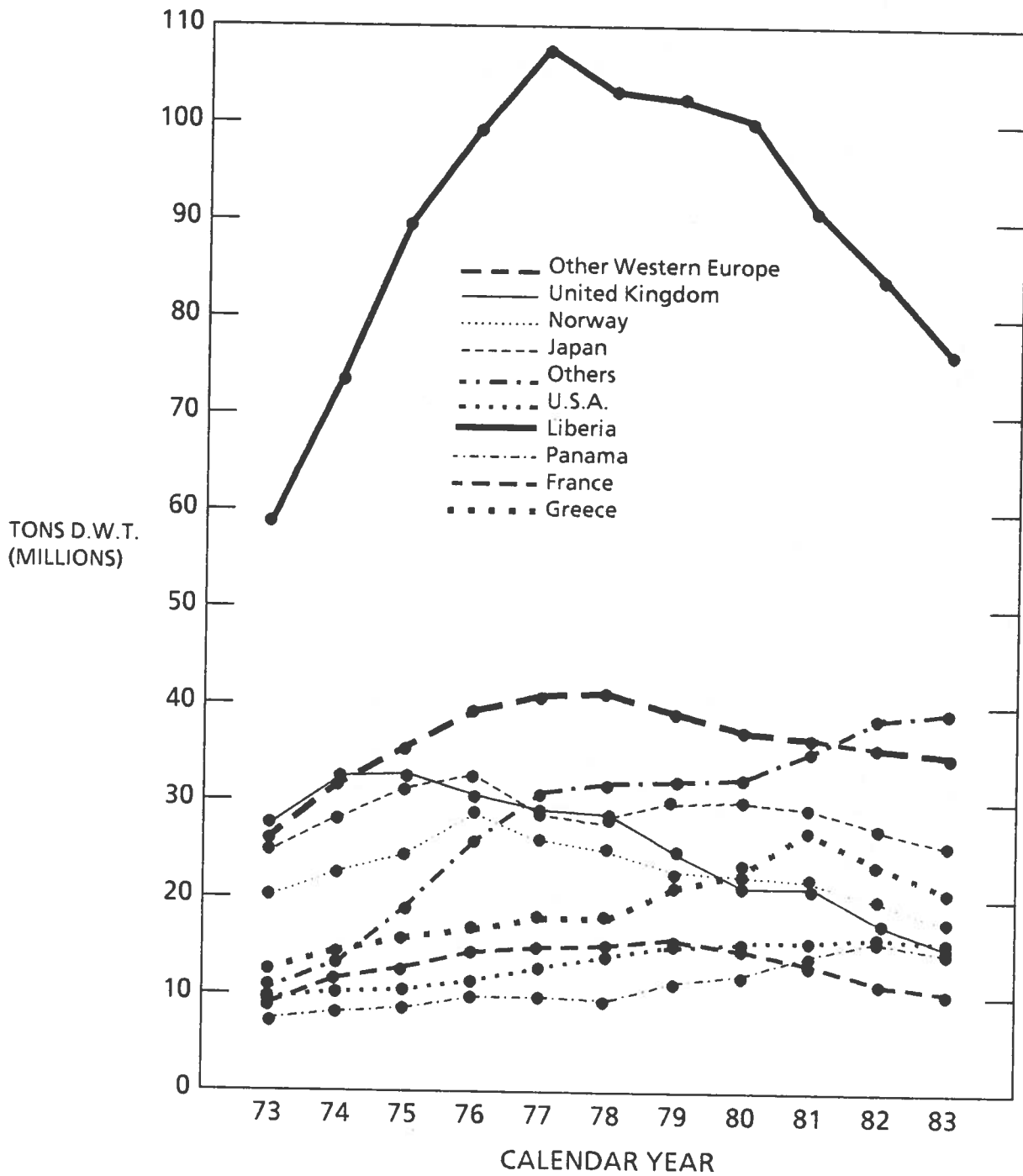


Figure 35. World Tanker Fleet by Flag, 1973 - 1983

Part 4. Energy Supply and Demand

**Table 72. Domestic Demand for Refined Petroleum
Products Supplied to End-Use Sectors
(at 5-Year Intervals 1955-1965 and Annually 1966-1984)
(trillion Btu's per day)¹**

| Year | Residential and Commercial | Industrial | Transportation | Transportation as % of Total | Electric Utilities ² | 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 | 6.37 ^r | 20.74 ^r | 49.67 ^r | 61.3 | 4.25 | 82.33 ^r |
| 1984 ^e | 6.69 | 21.77 | 52.71 | 62.2 | 3.50 | 84.72 |

^r = revised.

^e = estimate.

¹ Data derived by multiplying figures on source page by conversion factors in each end-user sector column on page 258 in U.S. DOE's *Annual Energy Review 1984*.

² These data are deliveries to electric utilities and do not equate to consumption by electric utilities.

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

Source: U.S. DOE/EIA, *Annual Energy Review 1984*, Table 50.

Table 74. Domestic Supply and Disposition for Motor Gasoline, 1965-1984
(daily averages in thousands of barrels)

| Year | Supply | | | Stocks as of Dec. 31 (barrels x 10 ³) | Change in Stocks | Disposition | | |
|------|---------------------|------------------|--------------------|---|------------------------|------------------------------|---------|----------------------|
| | Total Production | Imports | Total Supply | | | Total Product Supplied | Exports | Total Disposition |
| 1965 | 4,537 | 27 | 4,564 | 174,717 | -30 | 4,593 | 1 | 4,594 |
| 1966 | 4,798 | 43 | 4,841 | 186,393 | 31 | 4,808 | 2 | 4,810 |
| 1967 | 4,956 | 42 | 4,998 | 200,055 | 37 | 4,958 | 3 | 4,961 |
| 1968 | 5,215 | 59 | 5,274 | 204,496 | 13 | 5,260 | 1 | 5,261 |
| 1969 | 5,484 | 62 | 5,546 | 211,199 | 18 | 5,526 | 2 | 5,528 |
| 1970 | 5,714 | 67 | 5,781 | 209,255 | -5 | 5,785 | 1 | 5,786 |
| 1971 | 5,984 | 59 | 6,043 | 219,352 | 28 | 6,014 | 1 | 6,015 |
| 1972 | 6,292 | 68 | 6,360 | 212,894 | -18 | 6,377 | 1 | 6,378 |
| 1973 | 6,535 | 134 | 6,669 | 209,478 | -9 | 6,674 ^r | 4 | 6,678 |
| 1974 | 6,360 | 204 | 6,564 | 218,410 ¹ | 24 | 6,537 ^r | 2 | 6,539 |
| 1975 | 6,520 | 184 | 6,704 | 234,978 | 28 | 6,675 | 2 | 6,677 |
| 1976 | 6,841 | 131 | 6,972 | 231,432 | 10 | 6,978 | 3 | 6,981 |
| 1977 | 7,033 | 217 | 7,250 | 257,623 | 72 | 7,177 | 2 | 7,179 |
| 1978 | 7,169 | 190 | 7,359 | 237,979 | -54 | 7,412 | 1 | 7,413 |
| 1979 | 6,852 | 181 | 7,033 | 237,200 | -2 | 7,034 | * | 7,034 |
| 1980 | 6,506 | 140 | 6,646 | 261,398 | 66 | 6,579 | 1 | 6,580 |
| 1981 | 6,405 | 157 ^r | 6,562 ^r | 203,062 | 28 | 6,588 | 2 | 6,590 |
| 1982 | 6,338 ^r | 197 ^r | 6,535 ^r | 194,436 | 24 | 6,539 ^r | 20 | 6,559 ^r |
| 1983 | 6,340 ^r | 247 ^r | 6,587 ^r | 185,495 | 47 | 6,622 ^r | 10 | 6,632 ^r |
| 1984 | 6,467 | 292 | 6,759 | 205,391 | -54 | 6,698 | 6 | 6,704 |

^r = revised.

* = Less than 500 barrels per day.

¹ U.S. Bureau of Mines altered its stock reporting base as of January 1975. On the new basis, year-end, 1974 stocks were 224,719 thousand barrels. This figure was used to compute the 1975 stock change.

Source: 1965-1972: American Petroleum Institute, *Basic Petroleum Data Book*, Section VII, Table 5.

1973-1983: U.S. DOE, *Monthly Energy Review*, March 1985, p. 49.

Stocks Only:

1973-1982: *Ibid.*, *Petroleum Supply, Monthly*, December issues 1977 - 1982, Tables 2. 2a, 3a and 3 5 (converted to daily averages using column 6).

1983-1984: *Ibid.*, December issues, pp. 25, 27.

Table 76. Domestic Supply and Demand for Naphtha Type Jet Fuel, 1965-1984
(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 | 226 | 44 | 270 | 8,338 | * | 270 | 2 | 268 |
| 1966 | 245 | 35 | 280 | 7,235 | -3 | 283 | 4 | 279 |
| 1967 | 300 | 15 | 315 | 9,037 | 5 | 310 | 5 | 305 |
| 1968 | 332 | 19 | 351 | 8,904 | * | 351 | 5 | 346 |
| 1969 | 287 | 14 | 301 | 8,556 | -1 | 302 | 5 | 297 |
| 1970 | 230 | 20 | 250 | 6,621 | 5 | 255 | 6 | 249 |
| 1971 | 234 | 30 | 264 | 6,990 | 1 | 263 | 3 | 260 |
| 1972 | 209 | 33 | 242 | 6,147 | -2 | 244 | 2 | 242 |
| 1973 | 181 | 36 | 217 | 5,599 | -2 | 219 | 2 | 217 |
| 1974 | 195 | 27 | 222 | 5,529 | * | 222 | * | 222 |
| 1975 | 180 | 28 | 208 | 5,222 | -1 | 209 | * | 209 |
| 1976 | 187 | 15 | 202 | 6,495 | 3 | 199 | * | 199 |
| 1977 | 186 | 21 | 207 | 6,285 | -1 | 208 | * | 208 |
| 1978 | 182 | 19 | 201 | 5,960 | -1 | 202 | * | 202 |
| 1979 | 176 | 22 | 198 | 5,599 | -2 | 200 | * | 200 |
| 1980 | 188 | 31 | 219 | 6,308 | 2 | 217 | * | 217 |
| 1981 | 193 | 7 | 200 | 6,925 | -1 | 199 | 1 | 198 |
| 1982 | 200 | 5 | 205 | 5,673 | 4 | 208 | 1 | 207 |
| 1983 | 203 | 0 | 203 | 6,213 | 3 | 205 | 1 | 204 |
| 1984 | 212 | 12 | 224 | 6,861 | -2 | 223 | 3 | 220 |

* Less than 1,000 barrels.

Source: 1965-1975: American Petroleum Institute, *Basic Petroleum Data Book*, Section VII, Table 14.
 1976-1980: U.S. DOE, *Petroleum Statement, 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.
 1983-1984: *Ibid.*, December issues, pp. 25, 27.

**Table 78. Domestic Demand for Naphtha and Kerosene-Type Jet Fuel, 1965-1984
(thousand barrels)**

| Year | Naphtha Type Total | Barrels Per Day | Kerosene Type Total | Barrels Per Day | Naphtha and Kerosene | Barrels Per Day | Annual Percentage Change |
|------|--------------------------|-----------------------|---------------------------|-----------------------|----------------------------|-----------------------|--------------------------------|
| 1965 | 97,813 | 268 | 121,819 | 334 | 219,632 | 602 | -0.2 |
| 1966 | 101,635 | 278 | 142,751 | 391 | 244,386 | 670 | 11.3 |
| 1967 | 111,546 | 306 | 189,224 | 518 | 300,770 | 824 | 23.1 |
| 1968 | 126,601 | 346 | 222,777 | 609 | 349,378 | 955 | 16.2 |
| 1969 | 108,518 | 297 | 253,213 | 694 | 361,731 | 991 | 3.5 |
| 1970 | 90,927 | 249 | 262,051 | 718 | 352,978 | 967 | -2.4 |
| 1971 | 94,732 | 260 | 273,991 | 751 | 368,723 | 1,010 | 4.5 |
| 1972 | 88,495 | 242 | 293,995 | 803 | 382,490 | 1,045 | 3.7 |
| 1973 | 79,220 | 217 | 307,407 | 842 | 386,627 | 1,059 | 1.1 |
| 1974 | 81,171 | 222 | 281,429 | 771 | 362,600 | 993 | -6.2 |
| 1975 | 76,543 | 210 | 288,747 | 791 | 365,290 | 1,001 | 0.7 |
| 1976 | 72,713 | 199 | 288,645 | 789 | 361,358 | 987 | -1.1 |
| 1977 | 75,888 | 208 | 303,369 | 831 | 379,257 | 1,039 | 5.0 |
| 1978 | 72,546 | 202 | 313,108 | 858 | 385,654 | 1,060 | 1.7 |
| 1979 | 72,925 | 200 | 319,774 | 876 | 392,699 | 1,076 | 1.8 |
| 1980 | 79,283 | 217 | 311,813 | 852 | 391,096 | 1,069 | -0.4 |
| 1981 | 72,495 | 199 | 295,626 | 809 | 368,121 | 1,008 | -5.9 |
| 1982 | 75,754 | 208 | 292,529 | 801 | 368,283 | 1,009 | 0.4 |
| 1983 | 74,761 | 204 | 303,453 | 832 | 378,214 | 1,036 | 2.7 |
| 1984 | 80,684 | 221 | 347,486 | 952 | 428,170 | 1,173 | 13.21 |

Source: 1965-1975: U.S. DOI, Bureau of Mines, *Mineral Industry Surveys, Petroleum Statement, Annual*, Table 1.
1976-1982: U.S. DOE, *Petroleum Statement, Monthly*, December issues, Table 2A.
1983-1984: *Ibid.*, December issues, p. 25.

Table 80. Natural Gas Production, 1955-1984
(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 | n/a | 0.13 | 20.18 | 0.78 | 19.40 |
| 1981 | 17.34 | 4.25 | 21.59 | 1.31 | 0.20 | 0.10 | 19.96 | 0.77 | 19.18 |
| 1982 | 15.80 | 4.41 | 20.21 | 1.39 | 0.22 | 0.09 | 18.52 | 0.76 | 17.76 |
| 1983 | 14.15 ^r | 4.45 ^r | 18.60 ^r | 1.46 ^r | 0.21 | 0.09 ^r | 16.82 ^r | 0.79 ^r | 16.03 ^r |
| 1984 ^p | 15.36 | 4.50 | 19.86 | 1.48 | 0.22 | 0.09 | 18.07 | 0.85 | 17.22 |

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 1984*, Table 59.

**Table 82. Deliveries of Residual Fuel Oil by Use
(at 5-Year Intervals 1955-1970 and Annually 1971-1983)
(thousands of barrels)**

| Year | Vessel Bunkering | Gas and Electrical Public-Utility Plants* | Railroads | Oil Company Use | Industrial Use (Except Oil Co's.) | Heating Oils | Military Uses ³ | Misc. Uses | Total |
|-------------------|----------------------|---|-----------|-----------------|-----------------------------------|---------------------|----------------------------|------------|----------------------|
| 1955 | 115,128 | 75,966 | 15,018 | 53,387 | 173,030 | 86,282 | 28,368 | 9,804 | 556,983 |
| 1960 ¹ | 94,084 | 85,408 | 5,610 | 45,061 | 157,270 | 125,088 | 31,724 | 6,291 | 550,536 |
| 1965 | 73,639 | 114,884 | 4,001 | 34,354 | 140,602 | 156,254 | 40,380 | 10,004 | 574,118 |
| 1970 | 89,850 | 312,420 | 2,222 | 38,318 | 139,647 | 185,831 | 28,704 | 7,295 | 804,287 |
| 1971 | 78,727 | 371,820 | 1,262 | 32,626 | 136,221 | 182,062 | 29,217 | 6,109 | 838,044 |
| 1972 | 77,932 | 435,348 | 1,137 | 44,291 | 142,320 | 191,111 | 24,622 | 8,886 | 925,647 |
| 1973 | 92,415 | 509,457 | 1,214 | 50,652 | 152,267 | 192,252 | 22,892 | 9,028 | 1,030,177 |
| 1974 | 91,052 | 475,204 | 1,176 | 50,236 | 143,726 | 172,896 | 20,423 | 8,503 | 963,216 |
| 1975 | 96,673 | 454,935 | 583 | 50,487 | 116,657 | 154,103 | 19,068 | 6,066 | 898,572 |
| 1976 | 117,458 | 492,974 | 423 | 58,212 | 153,596 | 178,139 | 18,561 | 5,785 | 1,025,148 |
| 1977 | 128,966 | 569,429 | 329 | 60,582 | 171,967 | 168,279 | 16,646 | 4,729 | 1,120,927 |
| 1978 | 157,495 | 533,193 | 206 | 57,690 | 169,403 | 164,536 | 16,583 | 4,127 | 1,103,233 |
| 1979 | 190,543 | 486,636 | 245 | 51,062 | 198,759 | 82,729 ² | 7,736 | 16,900 | 1,034,610 |
| 1980 | 213,131 | 390,105 | 665 | 59,519 | 163,564 | 98,034 ² | 8,066 | 4,382 | 937,466 |
| 1981 | 188,632 | 325,486 | 178 | 51,870 | 117,024 | 67,035 ² | 7,008 | 4,795 | 762,030 |
| 1982 | 152,586 ^r | 227,419 | 170 | 45,319 | 122,619 | 65,781 ² | 7,829 | 4,784 | 626,510 ^r |
| 1983 | 136,290 | 204,238 | 140 | 32,820 | 89,573 | 46,743 ² | 5,411 | 3,389 | 518,604 |

^r = revised.

* Beginning with 1967, represents use by electric public-utility plants only.

¹ Includes Alaska and Hawaii.

² Beginning in 1979, heating oils has been reclassified commercial and is a part of the total called "heating and industrial."

³ Includes imports by military.

Source: 1955-1983: American Petroleum Institute, *Basic Petroleum Data Book*, 1984, Section VII, Tables 12 and 12a.

**Table 84. Refined Petroleum Products Supplied by Type
and to End-Use Sectors, 1983-1984**

| Year and Refined Product | Residential and Commercial | | | Industrial | | | Transportation | | | Electric Utilities | | | Total | |
|----------------------------|----------------------------|------------------|-------------------------|-------------------------|------------------|-------------------------|-------------------------|------------------|-------------------------|-------------------------|------------------|-------------------------|------------------|--|
| | Million Barrels Per Day | Quad-rillion Btu | Million Barrels Per Day | Million Barrels Per Day | Quad-rillion Btu | Million Barrels Per Day | Million Barrels Per Day | Quad-rillion Btu | Million Barrels Per Day | Million Barrels Per Day | Quad-rillion Btu | Million Barrels Per Day | Quad-rillion Btu | |
| 1983^r | | | | | | | | | | | | | | |
| Asphalt and Road Oil | 0 | 0 | 0.37 | 0.90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.37 | 0.90 | |
| Aviation Gasoline | 0 | 0 | 0 | 0 | 0.03 | 0 | 0.03 | 0.05 | 0 | 0 | 0 | 0.03 | 0.05 | |
| Distillate Fuel Oil | 0.67 | 1.42 | 0.61 | 1.29 | 1.37 | 2.92 | 1.05 | 2.14 | 0.05 | 0.10 | 0 | 2.69 | 5.72 | |
| Jet Fuel | 0 | 0 | 0 | 0 | 0 | 0 | 1.05 | 2.14 | 0 | 0 | 0 | 1.05 | 2.14 | |
| Kerosene | 0.06 | 0.12 | 0.07 | 0.15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.13 | 0.26 | |
| Liquefied Gases and Ethane | 0.31 | 0.41 | 1.17 | 1.54 | 0.03 | 0.04 | 0.03 | 0.04 | 0 | 0 | 0 | 1.51 | 1.99 | |
| Lubricants | 0 | 0 | 0.08 | 0.17 | 0.07 | 0.16 | 0.07 | 0.16 | 0 | 0 | 0 | 0.15 | 0.32 | |
| Motor Gasoline | 0.05 | 0.10 | 0.06 | 0.11 | 6.51 | 12.48 | 0.36 | 0.82 | 0 | 0 | 0 | 6.62 | 12.70 | |
| Residual Fuel Oil | 0.12 | 0.27 | 0.32 | 1.73 | 0.36 | 0.82 | 0 | 0 | 0.63 | 1.44 | 0 | 1.42 | 3.26 | |
| All Other ¹ | 0 | 0 | 1.27 | 2.70 | 0 | 0 | 0 | 0 | * | 0.01 | 0 | 1.27 | 2.71 | |
| Total | 1.21 | 2.32 | 3.93 | 7.58 | 9.41 | 18.61 | 0.68 | 1.54 | 0.68 | 1.54 | 1.54 | 15.23 | 30.05 | |
| 1984^p | | | | | | | | | | | | | | |
| Asphalt and Road Oil | 0 | 0 | 0.40 | 0.98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.40 | 0.98 | |
| Aviation Gasoline | 0 | 0 | 0 | 0 | 0.03 | 0.05 | 0 | 0.03 | 0 | 0 | 0 | 0.03 | 0.05 | |
| Distillate Fuel Oil | 0.71 | 1.51 | 0.64 | 1.36 | 1.46 | 3.11 | 1.17 | 2.40 | 0.04 | 0.09 | 0 | 2.85 | 6.07 | |
| Jet Fuel | 0 | 0 | 0 | 0 | 1.17 | 2.40 | 0 | 0 | 0 | 0 | 0 | 1.17 | 2.40 | |
| Kerosene | 0.05 | 0.11 | 0.06 | 0.13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.12 | 0.24 | |
| Liquefied Gases and Ethane | 0.33 | 0.43 | 1.22 | 1.60 | 0.03 | 0.04 | 0.03 | 0.04 | 0 | 0 | 0 | 1.58 | 2.08 | |
| Lubricants | 0 | 0 | 0.08 | 0.17 | 0.07 | 0.17 | 0.07 | 0.17 | 0 | 0 | 0 | 0.15 | 0.34 | |
| Motor Gasoline | 0.05 | 0.10 | 0.06 | 0.11 | 6.58 | 12.66 | 0.38 | 0.88 | 0 | 0 | 0 | 6.70 | 12.88 | |
| Residual Fuel Oil | 0.13 | 0.29 | 0.34 | 0.78 | 0.38 | 0.88 | 0 | 0 | 0.52 | 1.19 | 0 | 1.36 | 3.14 | |
| All Other ¹ | 0 | 0 | 1.35 | 2.82 | 0 | 0 | 0 | 0 | * | 0.01 | 0 | 1.35 | 2.83 | |
| Total | 1.27 | 2.44 | 4.15 | 7.97 | 9.72 | 19.30 | 0.56 | 1.29 | 0.56 | 1.29 | 1.29 | 15.71 | 31.00 | |

^r = revised.

^p = preliminary.

* Less than 5,000 barrels per day.

¹ Includes petrochemical feedstock, special naphthas, waxes, petroleum coke, still gas, natural gasoline, crude oil and miscellaneous products.

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

Source: U.S. DOE/EIA, *Annual Energy Review 1984*, Table 51.

APPENDIX A

Source Information

Figure 2. Expenditures and Revenues, 1983 (cont'd)

37. Passenger: *Ibid.*, p. 46, sum of scheduled and nonscheduled passenger service.
38. Freight: *Ibid.*, p. 46, sum of scheduled and nonscheduled freight services.
39. Water: Sum of Passenger, Cargo, and Commercial Fishing.
40. Passenger, Water: TPA, *Transportation In America*, 1985, p. 5. Figure represents revenues of ICC-regulated carriers. Expenditures for private boating are not available.
41. Cargo, Water: *Ibid.*, p. 4, domestic operations only.
42. Commercial Fishing: U.S. DOC, *Statistical Abstract of the U.S.*, 1985, p. 685.
43. Pipeline: TPA, *Transportation In America*, 1985, p. 4, includes revenues of regulated and unregulated oil pipelines.
44. Air Carrier: Figure represents overall operating revenues of the certificated carriers, total international operations. Same as Total Certificated figure, block (48).
45. Total Certificated: CAB, *Air Carrier Financial Statistics*, 1983, p. 2, total operating revenues, international operations only.
46. Total International Majors: *Ibid.*, p. 4, total operating revenues in scheduled and nonscheduled service.
47. Passenger: *Ibid.*, p. 4, sum of scheduled and nonscheduled passenger service.
48. Freight: *Ibid.*, p. 4, sum of scheduled and nonscheduled freight service.
49. Total International Nationals: *Ibid.*, p. 28, total operating revenues in scheduled and nonscheduled service.
50. Passenger: *Ibid.*, p. 28, sum of scheduled and nonscheduled passenger service.
51. Freight: *Ibid.*, p. 28, sum of scheduled and nonscheduled freight service.
52. Water: Sum of Passenger and Cargo.
53. Passenger, Water: TPA, *Transportation In America*, 1985, p. 5.
54. Cargo, Water: *Ibid.*, p. 4.

Figure 3. Vehicle-Miles, 1983

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. Department of Transportation (DOT), Federal Highway Administration (FHWA), *Highway Statistics*, 1983, Table VM-1. 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*, 1983, Table VM-1, includes total rural and urban.
9. Truck: *Ibid.*
10. Single-Unit: *Ibid.*
11. Combinations: *Ibid.*
12. Bus: Sum of Intercity Bus and School Bus.
13. Intercity Bus: ABA, personal communication. Includes Class I, II, and III carriers reporting to the ICC and Intrastate carriers. Preliminary figure.
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. Non-Passenger: *Ibid.*, non-passenger service.
19. Class II and III: Figure derived by subtracting Class I from Intercity Bus.
20. School Bus: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table VM-1. Includes total rural and urban.

Figure 3. Vehicle-Miles, 1983 (cont'd)

62. Total International Nationals: *Ibid.*, p. 48, sum of scheduled, line 27, and nonscheduled, line 50, services.
63. Scheduled: *Ibid.*, p. 48, line 27.
64. Passenger: *Ibid.*, p. 48, line 25.
65. Freight: *Ibid.*, p. 48, line 26.
66. Nonscheduled: *Ibid.*, p. 48, line 50.
67. Total International Large Regionals: *Ibid.*, p. 84, sum of scheduled, line 27, and nonscheduled, line 50, services.
68. Water: Not available.

Figure 4. Passenger-Miles, 1983

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*, 1983, Table VM-1. Passenger miles derived by multiplying total rural and urban passenger car travel by an average occupancy level of 2.2.
7. Taxi: Included in Personal Passenger Car.
8. Motorcycle: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table VM-1. 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: ABA, personal communication. Revenue passenger-miles, includes Classes I, II, and III carriers reporting to ICC plus Intrastate Carriers.
11. Class I: *Ibid.*
12. Regular-Route: *Ibid.*, personal communication.
13. Class II and III: Figure derived by subtraction of Class I from Intercity.
14. School Buses: Best estimate by NHTSA, National Center for Statistics and Analysis.
15. Local Transit: UMTA, *National Urban Mass Transportation Statistics, 1983 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*, 1985, p. 35.
23. Amtrak: *Ibid.*
24. Commutation: Amtrak, Marketing Department, personal communication.
25. Other Than Commutation: AAR, *Railroad Facts*, 1984, p. 61.
26. Air: Sum of General Aviation and Total Certificated.
27. General Aviation: TPA, *Transportation In America*, 1985, p. 8.
28. Total Domestic Certificated: CAB, *Air Carrier Traffic Statistics*, 1983, p. 2, revenue passenger miles, all services, line 1.
29. Total Domestic Majors: *Ibid.*, p. 5, sum of scheduled, line 9, and nonscheduled, line 41, services.
30. Scheduled: *Ibid.*, line 9.
31. First Class: *Ibid.*, line 7.

Figure 4. Passenger-Miles, 1983 (cont'd)

74. Total International Large Regionals: *Ibid.*, p. 84, sum of scheduled, line 9, and nonscheduled, line 41, services.
75. Water: Not Available.

Figure 5. Revenue Ton-Miles of Freight, 1983

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*, 1985, p. 6, total intercity ton-miles.
8. Single-Unit: TPA, personal communication.
9. Combination: *Ibid.*
10. Rail: AAR, *Railroad Ten-Year Trends*, 1984, Table III-E-8.
11. Air: Same as Total Domestic Certificated, block (12).
12. Total Domestic Certificated: CAB, *Air Carrier Traffic Statistics*, 1983, 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. Freight: *Ibid.*, p. 5, line 18.
16. Other: *Ibid.*, p. 5, sum of lines 19-21.
17. Nonscheduled: *Ibid.*, p. 5, sum of Civilian Freight, line 44, and Military Freight, line 45.
18. Civilian Freight: *Ibid.*, p. 5, line 44.
19. Military Freight: *Ibid.*, p. 5, line 45.
20. Total Domestic Nationals: *Ibid.*, p. 47, line 3.
21. Scheduled: *Ibid.*, p. 47, sum of Freight, Air Express, U.S. Mail and Foreign Mail, lines 18-21.
22. Freight: *Ibid.*, p. 47, line 18.
23. Other: *Ibid.*, p. 47, sum of lines 19-21.
24. Nonscheduled: *Ibid.*, p. 47, sum of Civilian Freight, line 44, and Military Freight, line 45.
25. Civilian Freight: *Ibid.*, p. 47, line 44.
26. Military Freight: *Ibid.*, p. 47, line 45.
27. Total Domestic Large Regionals: *Ibid.*, p. 83, line 3.
28. Scheduled: *Ibid.*, p. 83, sum of Freight, Air Express, U.S. Mail and Foreign Mail, lines 18-21.
29. Freight: *Ibid.*, p. 83, line 18.
30. Other: *Ibid.*, p. 83, sum of lines 19-21.
31. Nonscheduled: *Ibid.*, p. 83, sum of Civilian Freight, line 44, and Military Freight, line 45.
32. Civilian Freight: *Ibid.*, p. 83, line 44.
33. Military Freight: *Ibid.*, p. 83, line 45.
34. Total Domestic Medium Regionals: *Ibid.*, p. 113, line 3, includes international operations.
35. Scheduled: *Ibid.*, p. 113, sum of Freight, Air Express, U.S. Mail and Foreign Mail, lines 18-21.
36. Freight: *Ibid.*, p. 113, line 18.
37. Other: *Ibid.*, p. 113, sum of lines 19-21.
38. Nonscheduled: *Ibid.*, p. 113, sum of Civilian Freight, line 44, and Military Freight, line 45.
39. Civilian Freight: *Ibid.*, p. 113, line 44.

Figure 6. Number of Vehicles, 1983 (cont'd)

10. Private: *Ibid.*
11. Public: *Ibid.*
12. Bus: Sum of Intercity Bus and School Bus.
13. Intercity Bus: ABA, personal communication. This figure includes operations of Class I, II, and III carriers reporting to the ICC and the Intrastate carriers.
14. Class I: *Ibid.*, p. 6, Class I carriers including Greyhound and Trailways.
15. Class II and III: Figure derived by subtracting Class I from Intercity.
16. School: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table MV-10. (Total school and other non-revenue buses).
17. Local Transit: UMTA, *National Urban Mass Transportation Statistics, 1983 Section 15 Annual Report*, Table 2.14, total for all modes.
18. Motor Bus: *Ibid.*
19. Trolley Bus: *Ibid.*
20. Streetcar: *Ibid.*
21. Rail Rapid: *Ibid.*
22. Commuter Rail: *Ibid.*
23. Ferryboat: *Ibid.*
24. Demand Response: *Ibid.*
25. Rail: Sum of passenger and freight.
26. Rail, Passenger: AAR, *Railroad Facts*, 1984, 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*, 1984, 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: CAB, Financial and Cost Analysis Division, personal communication.
38. Nationals: *Ibid.*
39. Regionals: *Ibid.*, includes Large and Medium Regional airlines.
40. Water: Data not available for 1983 due to changes in collection procedures.
41. Self-Propelled: *Ibid.*
42. Dry Cargo/Passenger: *Ibid.*
43. Ferries, Railroad Car: *Ibid.*
44. Tankers: *Ibid.*
45. Towboats: *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 (33).

Figure 7. Number of Fatalities, 1983 (cont'd)

34. Air Carrier: *Ibid.*, Airlines operating under 14 CFR 121, scheduled and nonscheduled services.
35. Commuter: *Ibid.*, Air Carriers operating under 14 CFR 135.
36. Air Taxis: *Ibid.*, On-Demand Air Carriers operating under 14 CFR 135.
37. Water: Sum of Waterborne and Recreational Boating.
38. Waterborne: U.S. DOT/TSC, *Transportation Safety Information Report*, 1984 annual summary, Chart 38, vessel-casualty related fatalities only.
39. Recreational Boating: U.S. Coast Guard, *Boating Statistics 1983*, p. 22. This figure represents total fatalities in recreational boating.
40. Inboard: *Ibid.*, sum of inboard gasoline and diesel powered boats.
41. Outboard: *Ibid.*
42. Inboard/Outboard: *Ibid.*
43. Manual: *Ibid.*, includes boats propelled by oars and paddles.
44. Other: *Ibid.*, includes boats propelled by jet, sail, and other methods.
45. Unknown: *Ibid.*, includes all boats in which the propulsion was unknown.
46. Pipeline: U.S. DOT/TSC, *Transportation Safety Information Report*, 1984 annual summary, Chart 50B. This figure includes gas distribution and transmission lines (including gathering lines), and liquid transmission lines.
47. Air: Not available, figure is included in Total Certificated, block (33).
48. Water: Not available.

Figure 8. Energy Consumed in Transportation (Converted to 10^{12} Btu), 1983

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*, 1983, Table VM-1, 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*, 1983, Table VM-1, 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*, 1983, Table VM-1, 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 Transit Motorbus.
13. Class I Intercity: ABA, personal communication, fuel consumed, multiplied by the conversion factor of distillate fuel oil (138,700 Btu/gallon).
14. School Bus: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table VM-1, multiplied by the conversion factor of motor gasoline (125,000 Btu/gallon).
15. Motorbus: UMTA, *National Urban Mass Transportation Statistics, 1983 Section 15 Annual Report*, Table 2.10.
16. Local Transit: *Ibid.*
17. Rail: Sum of Passenger and Class I Freight.
18. Passenger: Sum of Class I Passenger and Amtrak.
19. Class I Rail Passenger: AAR, *Railroad Ten-Year Trends*, 1984, 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.

PROFILE REFERENCES

1. American Bus Association, *Bus Facts*, 1982.
2. American Gas Association, *Gas Facts*, 1983, 1974.
3. American Trucking Associations, Inc., *Truck Taxes and Highway Finance*, 1985.
4. *Ibid.*, Department of Economics and Taxation, *1985 Motor Carrier Annual Report*.
5. Amtrak, Government Affairs Office.
6. Association of American Railroads (AAR), *Railroad Facts*, 1984.
7. *Ibid.*, *Railroad Ten-Year Trends*, 1984.
8. *Ibid.*, *Statistics of Railroads of Class I in the U.S.*, 1983.
9. Association of Oil Pipelines, *Shifts in Petroleum Transportation*, 1985, 1974.
10. Civil Aeronautics Board (CAB), *Air Carrier Financial Statistics*, 1983, 1974.
11. *Ibid.*, *Air Carrier Traffic Statistics*, 1983, 1974.
12. Federal Energy Regulatory Commission (FERC).
13. Interstate Commerce Commission (ICC), *98th/97th/88th Annual Report of the ICC*, 1984, 1983, 1974.
14. *Ibid.*, *Transport Statistics in the United States*, Part 2, 1983.
15. National Safety Council, *Accident Facts*, 1984, 1983, 1974.
16. National Transportation Safety Board (NTSB), Information Systems Division.
17. NTSB, Safety Studies and Analysis Division, annual news release.
18. Penn Well Publishing Company, *Oil and Gas Journal*, 1984, 1982, 1981.
19. Transportation Association of America, *Transportation Facts and Trends*, 1975.
20. Transportation Policy Associates (TPA), estimate based on data from U.S. DOE and American Petroleum Institute.
21. *Ibid.*, *Transportation In America*, 1985.
22. U.S. Army, Corp of Engineers, *Summary of U.S. Passenger Flag Vessels*, annual issues.
23. *Ibid.*, *Waterborne Commerce of the United States*, Part 5, Calendar Year 1983.
24. U.S. Coast Guard, *Boating Statistics*, 1983, 1982, 1973.
25. *Ibid.*, Marine Safety Evaluation Branch, G-MM1-3.
26. *Ibid.*, *Proceedings of the Marine Safety Council*, January 1974.
27. U.S. Department of Commerce, Bureau of Economic Analysis.
28. *Ibid.*, *National Income and Product Accounts of the U.S.*, 1929-1979 Statistics.
29. *Ibid.*, *Survey of Current Business*, 1983, 1982.
30. *Ibid.*, Bureau of the Census, *Statistical Abstract of the United States*, 1985.
31. U.S. Department of Energy (DOE), Energy Information Administration, *Energy Data Reports*, Tables 1-2, 1974.
32. *Ibid.*, *Natural Gas Annual*, 1983.
33. *Ibid.*, *Statistics of Interstate Natural Gas Pipeline Companies*, 1983.
34. U.S. Department of Labor (DOL), Bureau of Statistics, *Employment and Earnings*, 1909-1978 Bulletin 1312-11, 1979.

TABLE REFERENCES

Table 1. Average Passenger Revenue Per Passenger Mile, 1973-1983

- Certificated Air Carrier, Domestic Operations, Scheduled Service:**
- 1973-1981: Civil Aeronautics Board (CAB), *Air Carrier Financial Statistics*, 1974-1982, annual issues, p. 2, lines 1, 2, and 3; *Air Carrier Traffic Statistics*, 1974-1982, 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.
- 1982-1983: *Ibid.*, *Air Carrier Financial Statistics*, 1983, p. 1, lines 1, 2 and 3 and *Air Carrier Traffic Statistics*, 1983, p. 2, lines 7, 8 and 9; calculated using same method as above.
- Class I Rail:**
- 1973-1979: 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.
- 1981-1983: Transportation Policy Associates (TPA), personal communication.
- Amtrak:**
- 1973-1979: 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.
- 1980-1983: *Ibid.*, *Railroad Facts*, 1984, p. 61.
- Class I Intercity Bus:**
- 1973-1979: American Bus Association (ABA), *Bus Facts*, 1981, p. 12.
- 1980-1981: *Ibid.*, 1982, p. 7.
- 1982-1983: *Ibid.*, personal communication.
- Consumer Price Index:**
- 1973-1980: 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.

Table 2. Average Freight Revenue Per Ton-Mile, 1973-1983

- Certificated Air Carrier, Domestic Operations, Scheduled Service:**
- 1973-1981: CAB, *Air Carrier Financial Statistics*, 1974-1982, annual issues, p. 2, line 4; *Air Carrier Traffic Statistics*, 1974-1982, annual issues, p. 4/5, line 18. Freight revenue (Financial Statistics) divided by revenue ton-miles of freight (Traffic Statistics).
- 1982-1983: *Ibid.*, *Air Carrier Financial Statistics*, 1982-1983, annual issues, p. 1, line 4; *Air Carrier Traffic Statistics*, 1982-1983, annual issues, p. 2, line 18. Freight revenue (Financial Statistics) divided by revenue ton-miles of freight (Traffic Statistics).
- Class I Rail:**
- 1973-1974: Interstate Commerce Commission (ICC), *Transport Economics*, 1976, p. 14.
- 1975-1976: *Ibid.*, 1978, p. 11.
- 1977-1980: AAR, *Operating and Traffic Statistics*, 1981.
- 1981-1983: TPA, *Transportation in America*, 1985, p. 11.
- Class I Intercity Motor Carriers of Property, Common and Contract:**
- 1973-1982: American Trucking Association (ATA), *Financial and Operating Statistics*, Class I and II, ICC-Regulated Motor Carriers of Freight, annual issues.
- 1983: ICC, Bureau of Accounts, personal communication.

Table 4. Total Operating Revenues, 1973-1983 (cont'd)

Oil Pipeline, ICC Regulated only:

1973-1976: TAA, *Transportation Facts and Trends*, 1978, p. 4.
1977-1979: *Ibid.*, 1981, p. 2.
1980-1983: TPA, *Transportation In America*, 1985, p. 4.

Gas Pipeline:

1973-1983: Transmission Companies: American Gas Association (AGA), *Gas Facts*, 1983, p. 148.
1973-1983: Distribution Companies: *Ibid.*, p. 147.

Class I Intercity Motor Carriers of Property:

1973-1979: ICC, *95th Annual Report of the ICC*, 1981, Table 8 and similar table in earlier editions.
1980-1983: *Ibid.*, *98th Annual Report of the ICC*, 1984, Appendix E, Table 6, and similar table in earlier editions.

Class I Rail:

1973-1983: AAR, *Railroad Ten-Year Trends*, 1984, Table II-A-1.

Amtrak:

1973-1982: AAR, *Statistics of Railroads of Class I in the U.S.*, 1983, p.16.
1983: *Ibid.*, *Railroad Facts*, 1984, p. 61.

Water Transport:

Classes A and B Carriers, Inland and Coastal Waterways:

1973-1979: ICC, *94th Annual Report of the ICC*, 1980, Table 10 and similar table in earlier editions.
1980-1983: TPA, *Transportation in America*, 1985, p. 10.

Maritime Carriers:

1973-1979: *Ibid.*, Table 11 and similar table in earlier editions.
1980-1983: U.S. DOT/Maritime Administration, personal communication.

Class A Freight Forwarders:

1973-1979: *Ibid.*, Table 12 and similar table in earlier editions.
1980-1983: TPA, *Transportation In America*, 1985, p. 4.

Table 5. Vehicle-Miles, 1973-1983

Air Carriers:

Certificated Domestic Operations, All services:

1973-1978: CAB, *Air Carrier Traffic Statistics*, 1974-1979, annual issues, p. 4, line (27) plus line (50).
1979: *Ibid.*, 1980, p. 5, line (27) plus line (50).
1980-1983: *Ibid.*, 1981-1983, annual issues, p. 2, line (27) plus line (50).

Total Majors, domestic operations:

1973-1979: Not available.
1980-1983: *Ibid.*, p. 5, line (27) plus line (50).

Total Nationals, domestic operations:

1973-1979: Not available.
1980-1983: *Ibid.*, p. 47, line (27) plus line (50).

Total Large Regionals, domestic operations:

1973-1979: Not available.
1980-1983: *Ibid.*, p. 83, line (27) plus line (50).

Total Medium Regionals, domestic and international operations:

1973-1979: Not available.
1980-1983: *Ibid.*, p. 113, line (27) plus line (50).

Table 6. Passenger-Miles, 1973-1983 (cont'd)

| | |
|---|---|
| General Aviation: | |
| 1973-1983: | TPA, <i>Transportation In America</i> , 1985, p. 8. |
| Highway: | |
| Passenger Car and Taxi: | |
| 1973-1983: | U.S. DOT/FHWA, <i>Highway Statistics</i> , 1983, Table VM-1 and similar table in earlier editions. Vehicle-miles multiplied by a constant average occupancy of 2.3. |
| Intercity Bus: | |
| 1973-1980: | ABA, <i>Bus Facts</i> , 1982, p. 2. |
| 1981-1983: | <i>Ibid.</i> , personal communication. |
| Class I Rail: | |
| Commutation and Other Than Commutation: | |
| 1973-1979: | AAR, <i>Statistics of Railroads of Class I in the U.S.</i> , 1980, p. 8 and p. 18. Amtrak and Auto-Train data (p. 18) subtracted from Class I data (p. 8). |
| 1980: | <i>Ibid.</i> , <i>Operating & Traffic Statistics</i> , 1981, p. 8. |
| 1981-1983: | TPA, <i>Transportation in America</i> , 1985, p. 35. |
| Amtrak: | |
| Commutation and Other Than Commutation: | |
| 1973-1979: | AAR, <i>Statistics of Railroads of Class I in the U.S.</i> , 1980, p. 18. |
| 1980: | <i>Ibid.</i> , <i>Operating & Traffic Statistics</i> , 1981, p. 8. |
| 1981-1983: | Amtrak, Marketing Department, personal communication. |

Table 7. Revenue Ton-Miles of Freight, 1973-1983

| | |
|--|---|
| Air Carrier: | |
| Certificated: | |
| 1973-1979: | CAB, <i>Air Carrier Traffic Statistics</i> , 1974-1980, p. 4/5, line 3. |
| 1980-1983: | <i>Ibid.</i> , 1981-1983, p. 2, line 3. |
| Oil Pipeline: | |
| 1973-1983: | TPA, <i>Transportation In America</i> , 1985, p. 6. |
| Class I Rail: | |
| 1973-1983: | AAR, <i>Railroad Ten-Year Trends</i> , 1984, Table III-E-8. |
| Motor Vehicles: | |
| 1973-1983: | TPA, <i>Transportation In America</i> , 1985, p. 6. |
| Water Transport: | |
| Inland Waterways, including Great Lakes: | |
| 1973-1983: | U.S. Army, Corps of Engineers, <i>Waterborne Commerce of the U.S.</i> , Part 5, Calendar year 1983, Section I, Table 6 and similar table in earlier editions. |
| Total Domestic Waterways: | |
| 1973-1980: | <i>Ibid.</i> , Part 5, Calendar year 1980, Section III, Table 3. |
| 1981: | <i>Ibid.</i> , Part 5, Calendar year 1981, Section III, Table 1. |
| 1982-1983: | <i>Ibid.</i> , Part 5, Calendar year 1982/1983, Section III, Table 2. |

Table 8. Basic Intercity Mileage Within the Continental United States, 1973-1983

| | |
|---------------------------|--|
| Railroads, All Line Haul: | |
| 1973-1982: | AAR, <i>Railroad Facts</i> , 1984, p. 42. Data represent aggregate length of roadway of all line-haul railroads, excluding mileage of yard tracks or sidings. Jointly used track is counted only once. |
| 1983: | <i>Ibid.</i> , personal communication. |

Table 9. Number of Vehicles, 1973-1983 (cont'd)

Passenger Cars and Pullman:

1973-1982: *Ibid.*, 1983, p. 10, line 8, minus Amtrak and Auto-Train data, p.17.
1983: *Ibid.*, Economics and Finance Department, personal communication.

Amtrak:

Passenger Cars and Pullman and Locomotives:

1973-1982: *Ibid.*, p. 17.
1983: *Ibid.*, *Railroad Facts*, 1984, p. 61.

Truck:

1973-1983: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table VM-1, and similar table in earlier editions.

Water Transport:

Total Inland Water Vessels:

1973-1983: Sum of Non-self-propelled vessels and Self-propelled vessels.

Non-self propelled vessels and Self-propelled vessels:

1973-1976: U.S. Army, Corps of Engineers, *Summary of U.S. Passenger Flag Vessels*, annual issues. Data as of Jan. 1, 1973, 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.*, Transportation Series Summary; beginning in 1981 data are collected every 2 years and are shown in 1982 column.
1983: Data not available; collected on a 2 year basis.

Oceangoing Steam and Motor Ships:

1973-1974: U.S. DOC, *Commerce News, Merchant Marine Data Sheet*, 1973-1974.
1975: *Ibid.*, *Merchant Fleets of the World*, 1976, p. 6.
1976: *Ibid.*, *Merchant Fleets of the World*, 1977, p. 2.
1977-1978: *Ibid.*, *Merchant Fleets of the World*, 1979, 1980, p. 7.
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: *Ibid.*, *Merchant Fleets of the World*, 1983, p. 4.
1983: *Ibid.*, 1984.

Table 10. Number of New Vehicles Purchased, By Mode, 1973-1983

Air Carrier:

1973-1983: Aerospace Industries Association, *1984 Aerospace Year-End Review and Forecast*, Table V.

General Aviation:

1973-1978: U.S. DOT/FAA, *Statistical Handbook of Aviation*, 1978, Table 9-2.
1979-1983: General Aviation Manufacturers Association, personal communication, data includes shipments of aircraft only.

Passenger Car and Taxi:

1973-1980: U.S. DOC, Bureau of Economic Analysis, *Survey of Current Business*, July issues, p. S-36/S-40.
1981-1983: *Ibid.*, July issues, p. S-32.

Motorcycle:

1973-1983: Motorcycle Industry Council, Inc., *1984 Motorcycle Statistical Annual*, p. 12.

Mopeds:

1974-1983: *Ibid.*

Bicycle:

1973-1983: Bicycle Mfg. Assoc. of America, *The 1984 Bicycle Market in Review*.

Truck:

1973-1980: U.S. DOC, Bureau of Economic Analysis, *Survey of Current Business*, July issues, p. S-36/S-40.
1981-1983: *Ibid.*, July issue, p. S-32, total of light, medium, and heavy duty.

Table 12. Number of Fatalities by Mode, 1973-1984 (cont'd)

| | |
|----------------------------|---|
| 1979: | <i>Ibid.</i> , 1980 annual summary, p. 26. |
| 1980: | <i>Ibid.</i> , 1981 annual summary, Tables 11, 12 and 13. |
| 1981-1983: | <i>Ibid.</i> , 1984 annual summary, Table 9. |
| U.S. Air Carriers: | |
| 1973-1983: | <i>Ibid.</i> , 1984 annual summary, Chart 19. |
| Commuter Air Carriers: | |
| 1973-1974: | Not available. |
| 1975-1983: | <i>Ibid.</i> , 1984 annual summary, Table 12. |
| On-Demand Air Taxi: | |
| 1973-1974: | Not available. |
| 1975-1983: | <i>Ibid.</i> , 1984 annual summary, Table 13. |
| U.S. General Aviation: | |
| 1973-1983: | <i>Ibid.</i> , 1984 annual summary, Chart 29. |
| Waterborne Transportation: | |
| 1973-1983: | <i>Ibid.</i> , 1984 annual summary, Chart 38. |
| Recreational Boating: | |
| 1973-1983: | <i>Ibid.</i> , 1984 annual summary, Chart 45. |
| Liquid Pipeline: | |
| 1973-1983: | <i>Ibid.</i> , 1984 annual summary, Chart 50B. |
| Gas Pipeline: | |
| 1973-1983: | <i>Ibid.</i> , 1984 annual summary, Chart 50B. |
| Hazardous Materials: | |
| 1973-1983: | <i>Ibid.</i> , 1984 annual summary, Chart 53B. |

Table 19. Personal Consumption Expenditures by Transportation Sector, 1973-1983

| | |
|------------|---|
| 1973-1976: | U.S. DOC, Bureau of Economic Analysis, <i>National Income and Product Accounts of the U.S.</i> , 1929-1979 Statistics, Table 2.4, lines 63-81. |
| 1977-1979: | <i>Ibid.</i> , <i>Survey of Current Business</i> , July 1982, Table 2.4, lines 63-81 (excluding line 67), and similar table in earlier editions |
| 1980-1983: | <i>Ibid.</i> , July 1984, Table 2.4, lines 63-81 (excluding line 67), and similar table in earlier editions. |

Table 20. Personal Consumption Expenditures by Type of Product, 1973-1983

| | |
|------------|---|
| 1973-1976: | <i>Ibid.</i> , Bureau of Economic Analysis, <i>National Income and Product Accounts of the U.S.</i> , 1929-1979 Statistics, Table 2.4, lines 2, 11, 20, 23, 28, 44, 55, 63, 82, 98, 102, and 104. |
| 1977-1979: | <i>Ibid.</i> , <i>Survey of Current Business</i> , July 1982, Table 2.4, and similar table in earlier editions. |
| 1980-1983: | <i>Ibid.</i> , July 1984, Table 2.4, and similar table in earlier editions. |

Table 21. National Income by Transportation Sector, 1973-1983

| | |
|------------|---|
| 1973-1976: | <i>Ibid.</i> , Bureau of Economic Analysis, <i>National Income and Product Tables</i> , 1973-1979, Table 6.3B, lines 38-45. |
| 1977-1979: | <i>Ibid.</i> , <i>Survey of Current Business</i> , July 1982, Table 6.3B, lines 38-45. |
| 1980-1983: | <i>Ibid.</i> , July 1984, Table 6.3B, lines 38-45. |

Table 24. Employment in Transportation and Related Industries, 1973-1983 (cont'd)

Transportation Services:

- 1973-1976: *Ibid.*, *Employment and Earnings, United States, 1909-78*, SIC 47.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data, 1984*, SIC 47.

Equipment Manufacturing:

Aircraft and Parts:

- 1973-1976: *Ibid.*, *Employment and Earnings, United States, 1909-78*, SIC 372.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data, 1984*, SIC 372.

Motor Vehicles and Equipment:

- 1973-1976: *Ibid.*, *Employment and Earnings, United States, 1909-78*, SIC 301 and 371, sum of motor vehicles and equipment and tires.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data, 1984*, SIC 301 and 371, sum of motor vehicles and equipment and tires.

Railroad Equipment:

- 1973-1976: *Ibid.*, *Employment and Earnings, United States, 1909-78*, SIC 374.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data, 1984*, SIC 374.

Ships and Boat Building and Repair:

- 1973-1976: *Ibid.*, *Employment and Earnings, United States, 1909-78*, SIC 373.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data, 1984*, SIC 373.

Other:

- 1973-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data, 1984*, sum of SIC 376 and SIC 379.

Related Industries:

Automotive and Accessory Retailers:

- 1973-1976: *Ibid.*, *Employment and Earnings, United States, 1909-78*, SIC 551, 2 and 553.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data, 1984*, SIC 551, 2 and 553, sum of new and used automobile dealers and other auto and home supply stores.

Automotive Wholesalers:

- 1973-1976: *Ibid.*, *Employment and Earnings, United States, 1909-78*, SIC 501.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data, 1984*, SIC 501.

Automotive Services and Garages:

- 1973-1976: *Ibid.*, *Employment and Earnings, United States, 1909-78*, SIC 75.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data, 1984*, SIC 75.

Gasoline Service Stations:

- 1973-1976: *Ibid.*, *Employment and Earnings, United States, 1909-78*, SIC 554.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data, 1984*, SIC 554.

Highway and Street Construction:

- 1973-1976: *Ibid.*, *Employment and Earnings, United States, 1909-78*, SIC 161.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data, 1984*, SIC 161.

Petroleum:

- 1973-1976: *Ibid.*, *Employment and Earnings, United States, 1909-78*, 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.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data, June 1983*, 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:

- 1973-1979: TAA, *Transportation Facts and Trends*, July issues, p. 22/23.
1980-1983: TPA, *Transportation in America*, 1985, p. 18.

Table 27. Expenditures and Overseas Travel by U.S. Residents and Foreign Visitors, 1973-1983 (cont'd)

Travel Payments in Foreign Countries:

1973: U.S. DOC, Bureau of the Census, *Statistical Abstract of the U.S.*, 1981, Table 414.
 1974-1983: *Ibid.*, 1985, Table 399.

Passenger Fare Payments to Foreign Countries:

1973: *Ibid.*, 1981, Table 414.
 1974-1983: *Ibid.*, 1985, Table 399.

Foreign Visitors to U.S.:

1973: *Ibid.*, 1981, Table 413.
 1974-1983: *Ibid.*, 1985, Table 398.

Average Expenditures of Visitors:

1973-1980: *Ibid.*, Bureau of Economic Analysis, *Survey of Current Business*, 1981, Table 4, and similar table in earlier editions.
 1981-1983: *Ibid.*, May 1984, Table 6.

Total Travel and Passenger Fare Transactions:

1973-1983: Sum of travel receipts and passenger fare receipts in U.S.

Travel Receipts in U.S.:

1973: U.S. DOC, Bureau of the Census, *Statistical Abstract of the U.S.*, 1981, Table 413.
 1974-1983: *Ibid.*, 1985, Table 398.

Passenger Fare Receipts in U.S.:

1973: *Ibid.*, 1981, Table 413.
 1974-1983: *Ibid.*, 1985, Table 398.

Table 30. Fuel Consumption by Mode of Transportation, 1973-1983

Class I Rail:

Locomotives:

1973-1983: Diesel Oil, AAR, *Railroad Ten-Year Trends*, 1984, Table III-D-2.
 1973-1982: Electricity, AAR, *Statistics of Railroads of Class I in the U.S.*, 1983, p. 15.
 1983: *Ibid.*, Economics and Finance Department, personal communication.
 1973-1979: Coal, Tons, AAR, *Statistics of Railroads of Class I in the U.S.*, 1983, p. 15
 1980-1983: *Ibid.*, *Railroad Ten-Year Trends*, 1984, Table III-D-6.

Motor Cars:

1973-1983: Diesel Oil, AAR, *Railroad Ten-Year Trends*, 1984, Table III-D-2.
 1973-1983: Electricity, *Ibid.*, Table III-D-5.

Air Carriers:

Certificated Carriers, Domestic and International:

1973-1975: U.S. DOT/FAA, *FAA Statistical Handbook of Aviation*, 1975, Table 6.27.
 1976-1979: CAB, *Fuel Cost and Consumption, Twelve Months Ended Dec. 31, 1980 and 1979*. Total of Tables 2, 3, 4, 6 and 7 and similar tables in earlier editions.
 1980-1983: *Ibid.*, *Twelve Months Ended Dec. 31, 1983 and 1982; 1981 and 1980*, p. 1.

General Aviation:

1973-1975: U.S. DOT/FAA, Information and Statistical Division, personal communication.
 1976-1977: *Ibid.*, Office of Aviation Policy, personal communication.
 1978-1983: *Ibid.*, *General Aviation Activity and Avionics Survey*, 1984, Table 2-21, and similar table in earlier editions.

Highway:

1973-1983: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table VM-1 and similar table in earlier editions.

APPENDIX B

Glossary

COMMUTER AIR CARRIERS: Commuter air carriers are certificated air taxi operators who perform scheduled services, as defined by the CAB as "those operators who perform, pursuant to published schedules, at least five round trips per week between two or more points, or carry mail." These operations are conducted under 14 CFR 135.

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 Illinois, Air Midwest, Air Wisconsin, Alaska International, America West, American International, Empire, Evergreen, Hawaii Express, International Air Service, Jet America, Midway, Muse, New York Air, Pacific Express, People Express, Reeve, Southern Air, Sunworld and Zantop.

MAJORS: Carrier groups with annual operating revenues of \$1,000,000,000 +. Included in this group are American, Braniff, Continental, Delta, Eastern, Northwest, Pan American, Republic, Trans World, United, USAir, and Western.

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 Aerostar, Air Nevada, Air North, Air North/Nenana, All Star, Altair, American Trans Air, Arista, Arrow, Aspen, Best, Big Sky, Blue Bell, Cascade, Challenge, Colgan, Elan, Emerald, Galaxy, Global, Golden West, Great American, Gulf Air Transport, Guy-America, Imperial, Jet Charter, Jet Fleet, Kodiak, L.A.B., Mid-South, Midstate, Mississippi Valley, Munz, NewAir, Northeastern, Northern Air, Overseas, Pacific East, Peninsula, Rich, Rocky Mountain, Sea Airmotive, Sky West, South Pacific, Sun Country, T-Bird, Western Yukon, and Wright.

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, Air Florida, Alaska, Aloha, Capitol, Flying Tiger/Metro Intl., Frontier, Hawaiian, Ozark, Pacific Southwest, Piedmont, Southwest, Texas International, Transamerica, Wien and World.

NONOPERATING 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.

NONREVENUE 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.

NONSCHEDULED FREIGHT: Property carried in charter operations.

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.

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).

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

INTERCITY BUS--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.

MOTORBUS: Rubber-tired, self-propelled transit vehicle with fuel supply carried onboard the vehicle.

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.

RAIL RAPID TRANSIT CARS: Rail cars with motive capability, driven by electric power taken from overhead lines or third rails, configured for passenger traffic and usually operated on exclusive right-of-way.

REVENUE PASSENGERS CARRIED: The total number of transit rides from origin to destination taken by passengers. Thus, a multi-vehicle ride would be counted only once. A ride by a nonrevenue passenger would not be counted.

REVENUE VEHICLE-MILES: One vehicle (bus, trolleybus, streetcar, etc.) traveling one mile (5,280 feet) while revenue passengers are on board generates one revenue vehicle-mile. The revenue vehicle-miles reported thus represent the total mileage traveled by vehicles in scheduled or unscheduled revenue-producing services.

SCHOOL BUSES: Type I and Type II school vehicles as defined in Highway Safety Program Standard No. 17, used exclusively to transport students, personnel, and equipment.

STREETCARS: Relatively lightweight passenger rail cars operating singly or in short trains or fixed rails in right-of-way that is not always separated from other traffic for much of the way. Streetcars do not necessarily have the right-of-way at grade crossings with other traffic.

TROLLEYBUSES: Rubber-tired, electrically powered passenger vehicles operated on city streets drawing power from overhead lines with trolleys.

UNLINKED PASSENGER TRIPS: The number of passengers who board public transportation vehicles. Passengers are counted each time they board a vehicle, even though more than one vehicle may be used for a single journey from origin to destination.

VEHICLE MILES: The total distance traveled by revenue vehicles, including both revenue miles and deadhead miles.

VEHICLE OPERATIONS EXPENSES: The costs associated with operating vehicles, such as operators' wages and fringe benefits, fuel, tires, and vehicle licensing.

WATER TRANSPORT TERMINOLOGY

BULK CARRIER: Carries dry cargo in bulk, stowed in cargo holds within vessel hull. Cargo is poured aboard from elevator spouts, conveyor belts or slurry pipelines. It is unloaded using grab buckets, conveyor systems or vacuum equipment. Only nine vessels, mostly converted tankships are presently eligible for domestic service. Commonly referred to as "dry bulker."

BUNKER C/NUMBER 6 FUEL OIL: A high viscosity oil used mostly by ships, industry, and large-scale heating installations. This heavy fuel requires preheating in the storage tank to permit pumping and additional preheating to permit atomizing at the burners.

CLASS A CARRIERS BY INLAND AND COASTAL WATERWAYS: A Class A carrier by water is one with an average annual operation revenue that exceeds \$500,000.

CLASS B CARRIERS BY INLAND AND COASTAL WATERWAYS: A Class B carrier by water is one with an average annual operating revenue greater than \$100,000 but less than \$500,000.

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

CONTAINERSHIP: Carries cargo in special intermodal cargo containers which are stowed below deck in specially fitted holds and stacked on deck several units high. Loading and unloading are accomplished by shoreside traveling crane or, occasionally, by shipboard gantry crane. Sometimes referred to as "lift-on/lift-off" vessel. Twenty-six are presently in domestic service.

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

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

TANKSHIP: Carries liquid cargo in bulk, stowed in cargo tanks within vessel hull. Cargo is pumped aboard by a shore terminal and unloaded using the vessel's installed pumping system. It is one of the largest and newest vessels used in domestic commerce, with sizes ranging from 16,000 to 190,000 deadweight tons. Commonly referred to as "tanker." Approximately 180 are presently in domestic service.

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

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.

OTHER DISTILLATE FUEL OILS: All other refined petroleum products not included in any other category and which, when produced in conventional distillation operations, have a boiling range from 10% point at 167 degrees C to 90% point at 375 degrees C. Included are products known as No. 1 and No. 4 distillate fuel oils and diesel oils.

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)

| | |
|--|--------------------|
| earnings, per full-time employee | 84, 85 |
| employment | 88 |
| energy, | |
| consumed in transportation | 11 |
| intensiveness | 128, 135 |
| expenditures, personal consumption | 78, 79 |
| fatalities | 10, 23, 70, 71 |
| fleets | 76 |
| fuel, | |
| consumption and travel | 99, 100, 101 |
| efficiency | 112, 113, 114, 116 |
| gasoline, cost per mile | 123, 124 |
| income, national | 82, 83 |
| injury severity | 69 |
| miles, | |
| passenger | 8, 60, 61 |
| vehicle | 6, 58, 59 |
| profile | 23 |
| sales, | |
| production and factory, U.S. | 74 |
| model year, market shares and sales-weighted fuel efficiency | 114 |
| retail, U.S. | 74 |
| vehicles, | |
| number of | 9, 66 |
| purchased | 67 |
| world production | 75 |
| Boating - see inland waterways and water | |
| Buses - see also motor vehicles | |
| employment | 88 |
| energy, | |
| consumed in transportation | 11 |
| intensiveness | 130, 131, 135 |
| expenditures, personal consumption | 78, 79 |
| fares, passenger | 54, 55 |
| fatalities | 10, 25, 70, 71 |
| fuel, consumption and travel | 100, 102 |
| miles, | |
| passenger | 7, 60, 61 |
| vehicle | 6, 58, 59 |
| profile | 25 |
| revenues, | |
| operating | 5, 56, 57 |
| passenger | 50, 51 |
| sales, factory, U.S. | 74 |
| vehicles, | |
| number of | 9, 66 |
| purchased | 67 |
| world production | 75 |
| Cargo | |
| miles, ton | 8, 62, 63, 89 |
| 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 | |

Index (cont'd)

| | |
|---|------------|
| consumption and travel, | |
| bus | 102 |
| passenger vehicle | 101 |
| truck | 103 |
| distillate oil deliveries, by use | 164 |
| domestic supply and demand, | |
| kerosene jet fuel | 158 |
| kerosene and naphtha jet fuel | 159 |
| naphtha jet fuel | 157 |
| efficiency, | |
| passenger cars | 112, 113 |
| sales-weighted, domestic and imported automobiles | 114 |
| sales-weighted, domestic and imported light trucks | 115 |
| gasoline, | |
| cost, per mile | 123, 124 |
| domestic demand | 156 |
| motor, domestic supply and demand | 155 |
| miles, gas utility | 146 |
| price, | |
| retail | 109 |
| trend of gasoline vs other consumer goods | 111 |
| trend of regular grade gasoline | 113 |
| residual oil deliveries, by use | 163 |
| Gasoline - see fuel | |
| General Aviation - see also air carriers | |
| energy, | |
| consumed in transportation | 11 |
| intensiveness | 134, 135 |
| fatalities | 10, 70, 71 |
| fuel, | |
| consumption | 99 |
| price, retail | 109 |
| miles, | |
| passenger | 7, 60, 61 |
| vehicle | 6, 58, 59 |
| profile | 20 |
| vehicles, | |
| number of | 9, 66 |
| purchased | 67 |
| Gross National Product | |
| national transportation and economic trends | 89 |
| Highway - see also automobiles, buses and trucks | |
| employment | 88 |
| energy, consumed in transportation | 11 |
| fatalities | 10, 70, 71 |
| fuel, | |
| price, retail | 109 |
| miles, intercity | 64 |
| profile | 22 |
| 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 | 72 |
| crude oil imports/exports | 166 |
| departures between U.S. and foreign countries | 73 |

Index (cont'd)

Pipeline

| | |
|---|------------|
| earnings, per full-time employee | 84, 85 |
| energy, | |
| consumed in transportation | 11 |
| shipments | 144 |
| employment | 88 |
| fatalities | 10, 70, 71 |
| fuel, consumption | 99 |
| income, national | 82, 83 |
| miles, | |
| cargo ton | 8, 62, 63 |
| gas utility | 146 |
| intercity | 64, 65 |
| petroleum | 145 |
| natural gas profile | 41 |
| oil profile | 40 |
| revenues, | |
| freight | 52, 53 |
| operating | 5, 56, 57 |
| transportation, | |
| crude oil | 140 |
| crude petroleum and petroleum products, U.S. | 142, 143 |
| petroleum, refined | 141 |
| wages and salaries | 86, 87 |

Price

| | |
|---|----------|
| cost of owning/operating, | |
| automobiles and vans, 1984 | 125 |
| compact size, 1984 | 120 |
| intermediate size, 1984 | 119 |
| large size, 1984 | 118 |
| passenger vans, 1984 | 122 |
| subcompact size, 1984 | 121 |
| gasoline, cost per mile | 123, 124 |
| transportation, | |
| fuel, retail | 109 |
| sector and energy source | 110 |
| trend of gasoline vs other consumer goods | 111 |
| trend of regular grade gasoline | 113 |

Producer Price Index

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

Railroads - includes Class I - see also amtrak

| | |
|---|------------|
| earnings, per full-time employee | 84, 85 |
| employment | 88 |
| energy, | |
| consumed in transportation | 11 |
| intensiveness | 131, 135 |
| expenditures, personal consumption | 78, 79 |
| fares, passenger | 54, 55 |
| fatalities | 10, 70, 71 |
| fuel, | |
| consumption | 99 |
| price, retail | 109 |
| income, national | 82, 83 |
| miles, | |
| cargo ton | 8, 62, 63 |
| intercity | 64, 65 |
| passenger | 60, 61 |
| profile | 37 |
| revenues, | |
| freight | 52, 53 |
| operating | 5, 56, 57 |
| passenger | 5, 50, 51 |
| transportation, | |
| crude oil | 140 |
| crude petroleum and petroleum products, U.S. | 142, 143 |
| petroleum, refined | 141 |

Index (cont'd)

Water - see also inland waterways

| | |
|---|------------|
| commodities carried, principal | 139 |
| employment | 88 |
| energy, | |
| consumed in transportation | 11 |
| transported, foreign and domestic commerce | 138 |
| fatalities | 10, 70, 71 |
| fuel, consumption | 99 |
| income, national | 82, 83 |
| miles, | |
| cargo ton | 62, 63 |
| vehicles | 6, 58, 59 |
| profile | 34 |
| revenues, | |
| freight | 52, 53 |
| operating | 5, 56, 57 |
| transportation, | |
| crude oil | 140 |
| crude petroleum and petroleum products, U.S. | 142, 143 |
| petroleum, refined | 141 |
| vehicles, | |
| number of | 9, 66 |
| purchased | 67 |
| wages and salaries | 86, 87 |

Bibliography (cont'd)

32. NTSB, Safety Studies and Analysis Division, annual news release, Washington, D C
33. Oak Ridge National Laboratory, *Motor Vehicle MPG and Market Shares Report*, 1984.
34. Oak Ridge National Laboratory, *Transportation Energy Data Book*, 7th edition.
35. Penn Well Publishing Company, *Oil and Gas Journal*, 1984, 1982, 1981, 1980, 1979, 1976.
36. Transportation Association of America, *Transportation Facts and Trends*, 1981, 1980, 1978, 1975, and Quarterly Supplements, Washington, D.C.
37. Transportation Policy Associates, *Transportation In America*, 1985, Washington, D.C
38. Sun Oil Company, Division of Planning and Industrial Affairs, *Analysis of World Tank Ship Fleet*. 1977, Chester, PA.
39. U.S. Army, Corps of Engineers, *Summary of U.S. Passenger Flag Vessels*, annual issues, 1973-1983, Washington, D.C.
40. U.S. Army, Corps of Engineers, *Waterborne Commerce of the United States*, Part 5, Calendar Years 1983, 1982, 1981, 1980, Washington, D.C.
41. U.S. Coast Guard (USCG), *Boating Statistics*, 1983, 1982, 1973, Washington, D.C.
42. USCG, *Proceedings of the Marine Safety Council*, 1983, 1982, 1974, Washington, D.C.
43. U.S. Department of Commerce (DOC), *A Statistical Analysis of the World's Merchant Fleets*, 1981, Washington, D.C.
44. U.S. DOC, Bureau of the Census, *Statistical Abstract of the U.S.*, 1985, 1984, 1983, 1982, 1981, Washington, D.C.
45. U.S. DOC, Bureau of Economic Analysis, *National Income and Product Accounts of the U.S.*, 1929-1979 Statistics, Washington, D.C.
46. U.S. DOC, Bureau of Economic Analysis. *Survey of Current Business*, May and July issues, 1973-1984, Washington, D.C.
47. U.S.DOC. *Commerce News, Merchant Marine Data Sheet*, 1973-1974, Washington, D.C.
48. U.S. DOC, *Merchant Fleets of the World*, annual issues 1973-1980, Washington, D C
49. U.S. Department of Energy (DOE), Energy Information Administration (EIA), *Annual Report to Congress*, 1982, 1981, Washington, D.C.
50. U.S. DOE/EIA, *Annual Energy Review 1984*, Washington, D.C.
51. U.S. DOE/EIA, *Energy Data Reports, Crude Oil and Refined Products Pipeline Mileage in the U.S.*, 1976, Washington, D.C.
52. U.S. DOE/EIA, *Energy Data Reports, Deliveries of Fuel Oil and Kerosene*, Washington, D.C.
53. U.S. DOE/EIA, *Monthly Energy Review*, 1984, Washington, D.C.
54. U.S. DOE/EIA, *Natural Gas Annual*, 1983, 1980, Washington, D.C.
55. U.S. DOE/EIA, *Energy Data Reports, Petroleum Supply Annual*, 1982, Washington, D.C.
56. U.S. DOE/EIA, *Energy Data Reports, Petroleum Supply Monthly*, 1977-1984, Washington, D.C.
57. U.S. DOE/EIA, *Statistics of Interstate Natural Gas Pipeline Companies*, 1983, 1981, Washington, D.C.
58. U.S. DOE, *Mineral Industry Surveys; Crude Oil and Product Pipelines*, Triennial, 1977, Washington, D.C.
59. U.S. Department of Interior (DOI), Bureau of Mines, *Mineral Industry Surveys, Fuel Oil Sales Annual, U.S.*, 1976, Washington, D.C.
60. U.S. DOI, Bureau of Mines, *Mineral Industry Surveys, Petroleum Statement Annual*, 1965-1975, Washington, D.C.
61. U.S. DOI, Bureau of Mines, *Natural Gas Annual*, 1975, Washington, D.C.
62. U.S. Department of Labor (DOL)/Bureau of Labor Statistics, *Consumer Price Index*, 1985, Washington, D.C.

Dear NTS User:

Please answer the following questions about the National Transportation Statistics (NTS) Annual Report. Your comments and suggestions will enable us to improve and expand future editions. Upon completion, fold on dotted line and place in mail.

1. With which organization are you affiliated? (please check)

federal government____ industry/commerce____ consulting firm____
state/local government____ library____ publisher/media____
foreign government____ nonprofit/educational institution____ other____

2. What is your occupation? (please check)

manager____ researcher____ statistician____
technician____ librarian____ planner____
journalist____ public official____ other____

3. What do you use this publication for? (please check)

research____ policy formulation____ general information____
legislation/regulation____ projection____ other____
instruction____ planning____

4. The following are the major categories of data in NTS. Please rate each category by placing a check under the column which best describes its usefulness to you and your organization.

| | Very Useful | Fairly Useful | Not Useful |
|--|-------------|---------------|------------|
| A. Tree Displays | _____ | _____ | _____ |
| B. Modal Profiles | _____ | _____ | _____ |
| C. Selected Passenger and Cargo Performance Indicators | _____ | _____ | _____ |
| D. Transportation Trends | _____ | _____ | _____ |
| E. Supplementary Data | _____ | _____ | _____ |
| F. Section I. Transportation and the Economy | _____ | _____ | _____ |
| G. Section II. Energy in Transportation | | | |
| • Part 1. Energy Consumption | _____ | _____ | _____ |
| • Part 2. Energy Intensiveness | _____ | _____ | _____ |
| • Part 3. Energy Transport | _____ | _____ | _____ |
| • Part 4. Energy Supply and Demand | _____ | _____ | _____ |

5. Is the overall format and layout easy to use? yes____ no____

If no, why not? _____

6. What specific additions, deletions or corrections would you like to see made to this publication? _____

7. Other comments or suggestions _____

Thank you for your assistance.