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BUREAU OF TRANSPORTATION STATISTICS

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Preface

Congress requires the Bureau of Transportation Statistics (BTS) of the Research and Innovative Technology Administration to report on transportation statistics to the President and Congress. This Transportation Statistics Annual Report (TSAR) is the twelfth such report prepared in response to this congressional mandate, laid out in 49 U.S.C. 111 (l). In addition to presenting the state of transportation statistics, the report focuses on transportation indicators related to 13 topics specified in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users.

The BTS publication, National Transportation Statistics (NTS), a companion to this annual report, has more comprehensive and longer time series data than could be accommodated here. NTS is available online at www.bts.gov.

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Chapter 1

Summary

Summary

This edition of the Transportation Statistics Annual Report presents selected transportation data on 13 topics specified in the legislative mandate of the Bureau of Transportation Statistics (BTS) of the U.S. Department of Transportation's Research and Innovative Technology Administration (RITA). The data are presented in Chapter 2. They are summarized here, under four headings: Mobility and Access to Transportation, Safety and Security, Global Connectivity, and Energy and Environment. In most cases, the data cover the 10 most recent years for which data are available. The Summary has references to tables in Chapter 2 that identify data sources. An appendix table provides context information on U.S. population, labor force, and economic conditions—variables that influence traveling behavior and goods movements (1 of the 13 topics).

The Safe, Accountable, Flexible, Efficient Transportation Act: A Legacy for Users (SAFETEA-LU) also requires RITA's BTS to make recommendations for improving transportation statistical information and to document methods used to obtain and ensure the quality of the report's statistics. These two subjects are discussed in Chapter 3. The focus for improvements is on data gaps, including gaps that may arise because of suspension of several data collection efforts. The chapter also discusses methodological guidelines that apply to federal data quality; documentation on specific data accompanies each table in Chapter 2.

Mobility and Access to Transportation

The United States, the fourth largest country by land area, has developed an extensive transportation system to serve its 300 million residents and 7 million business establishments. Americans travel a great deal as they go to and from work, run errands and shop, transport children, visit their family and friends, take vacations, enjoy leisure time activities, and engage in other pursuits. Whether they travel long distance or locally, they overwhelmingly use personal vehicles (cars, minivans, sport utility vehicles, etc). Nearly 90 percent of their long-distance trips are in personal vehicles, followed by airplanes at 7 percent, and intercity bus at 2 percent. They use personal vehicles to make 87 percent of their daily trips, followed by walking (9 percent), transit, and other modes. U.S. businesses depend on the transportation system as they move their goods to markets here and abroad, set up supply chains and distribution networks, and send employees throughout the country and world to conduct business. Trucks are the most widely used means of transporting freight in domestic transportation, but rail, water, and pipeline together account for a majority of ton-miles, and, while the tonnage is small, air freight is rapidly growing, especially for high-value commodities that need to be delivered quickly. Both passenger travel and freight shipments require an interconnected system of transportation modes to function effectively.

Table 1

Key Elements of the U.S. Transportation System
2005 (unless otherwise noted)

Air

Extent

5,270 public use airports
14,584 private use airports

Aircraft and use

8,186 certificated air carrier aircraft, 7.71 billion airplane-miles flown, 795.12 billion passenger-miles traveled; 17.78 billion revenue ton-miles of freight

Passenger and freight companies

17 major air carriers, 72 other air carriers, 558 thousand employees

Highways

Extent

2.6 million miles of paved roads; 8.4 million lane miles of paved roads
1.4 million miles of unpaved roads
0.6 million highway bridges

Personal vehicles and light trucks

136.6 million passenger cars; 1.690 trillion vehicle-miles traveled;
2.670 trillion person-miles traveled
95.3 million light trucks; 1.060 trillion vehicle-miles traveled;
1.837 trillion person-miles traveled
6.2 million motorcycles; 10.77 billion vehicle-miles traveled;
13.68 billion person-miles traveled

Heavy truck vehicles and use

8.5 million heavy trucks; 222.29 billion vehicle-miles traveled

Pipeline (2004)

Extent

162 thousand miles of hazardous liquid pipeline
328 thousand miles of natural gas gathering and transmission pipeline
1.2 million miles of natural gas distribution pipeline

Pipeline operators

282 hazardous liquid pipeline operators,
903 natural gas transmission pipeline operators,
1,318 natural gas distribution pipeline operators

38 thousand employees

(continued)

(Table 1 continued)

Rail

Extent

95,664 miles owned by Class I railroads
15,388 miles owned by Regional railroads
29,197 miles owned by Local railroads

Equipment and use

1.3 million freight cars in service; 1.696 trillion revenue ton-miles
of freight by Class I companies
22,779 Class I locomotives

Freight rail

7 Class I companies with 162 thousand employees
30 Regional companies with 7 thousand employees
523 Local companies with 12 thousand employees

Passenger rail (Amtrak)

22,007 miles operated by Amtrak
527 Amtrak stations
1,186 Amtrak-owned passenger cars in service; 25.1 million revenue passengers
carried
258 Amtrak-owned locomotives in service
19 thousand employees

Transit

Extent (2004)

215,252 bus directional route miles at 100 largest transit agencies
6,875 directional route miles of commuter rail
1,596 directional route miles of heavy rail
1,187 directional route miles of light rail

Vehicles (2004) and use

81,033 buses, 21.38 billion passenger-miles, 5.09 billion
unlinked trips
10,858 heavy rail cars, 14.35 billion passenger-miles, 2.75 billion
unlinked trips
6,288 commuter rail cars and locomotives, 9.71 billion passenger-miles,
413.9 million unlinked trips
1,622 light rail cars, 1.58 billion passenger-miles, 349.9 million
unlinked trips
37,078 demand response vehicles

Transit agencies (2004)

6,429 transit agencies, 345 thousand employees

Water (2004)

Extent

26 thousand miles of navigable waterways; 9,133 commercial facilities

Vessels

31,296 nonself propelled vessels, 8,994 self-propelled vessels, 412 oceangoing steam and motor ships in the U.S.-flag domestic fleet

Marine vessel operators

767 marine vessels operators, 56 thousand employees

SOURCES:

Air: Airports—U.S. Department of Transportation, Federal Aviation Administration, *Administrator's Factbook* (Washington, DC: March 2005). Number of Aircraft—Aerospace Industries Association, *Aerospace Facts and Figures 2005/6* (Washington, DC: 2005), p. 90. VMT, PMT, ton-miles—U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *Air Carrier Traffic Statistics* (Washington, DC: Annual December issues). Passenger and Freight Companies—U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-2, available at <http://www.bts.gov/>. Employees—U.S. Department of Labor, Bureau of Labor Statistics Data, National Employment Hours and Earnings, table B-1.

Highways: Public Roads—U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics 2005* (Washington, DC: 2006), table HM-12. Lane Miles—*ibid*, table HM-48. Vehicles, VMT, PMT—*ibid*, table VM-1. Bridges—U.S. Department of Transportation, Federal Highway Administration, Office of Bridge Technology, National Bridge Inventory Database, available at <http://www.fhwa.dot.gov/bridge/britab.htm>.

Pipeline: Mileage—Oil: U.S. Department of Transportation, Pipeline and Hazardous Materials Administration, Office of Pipeline Safety, Pipeline Statistics, Internet site <http://ops.dot.gov/stats.htm>. Natural Gas: American Gas Association, *Gas Facts, 2005* (Arlington, VA: 2006), table 5-1. Pipeline Operators—U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-2, available at <http://www.bts.gov/>.

Rail: Miles of track, Equipment, Passenger and Freight Companies, Amtrak pmt, Employees—Association of American Railroads, *Railroad Facts 2006* (Washington, DC: 2006). Stations—Amtrak, State Fact Sheets, available at <http://www.amtrak.com/>.

Transit: American Public Transit Association, *Public Transportation Fact Book* (Washington, DC: various years).

Water: Navigable Waterways—U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-1, available at <http://www.bts.gov/>. Vessels—U.S. Department of Transportation, Maritime Administration, *Top 20 Merchant Fleet of the World* (Washington, DC: 2004). Operators—U.S. Army Corps of Engineers, *Waterborne Transportation Lines of the United States, Volume 1, National Summaries* (New Orleans, LA: Annual issues). Employees—U.S. Department of Labor, Bureau of Labor Statistics Data, National Employment Hours and Earnings, table B-1.

Extent, connectivity, and condition of the transportation system

Extent

- The United States has about 4 million miles of roads, 140,000 miles of railroad, more than 1.6 million miles of oil and gas pipelines, and 26,000 miles of navigable waterways. (Table L-1 in Chapter 2 and Table 1) If laid end to end, the nation's waterways would circle the earth once, its railroads would circle the earth more than five times; its pipelines, 56 times, and its roads 160 times.
- The U.S. has 5,270 public use airports, 9,133 waterway facilities, 2,909 rail transit stations, and 527 intercity railway stations. (Tables L-3, L-4, and L-5)
- Transportation capital stock, a measure of the amount of productive assets (buildings, structures, machinery, and equipment) in use at a particular time, reached almost \$4.4 trillion in 2004, \$1.4 trillion more than a decade earlier. Although highways and consumer motor vehicles constitute more than \$3 trillion of the total, all components have grown—with air growing fastest (more than doubling) in the decade. (Table L-7)
- In 2004, there were about 243 million highway motor vehicles (41 million more than a decade earlier), nearly 13 million recreational boats and vessels, 1.3 million railcars and locomotives, and about 220,000 general aviation and commercial airplanes (2003 data) in the United States. (Table L-6)
- Freight was hauled in more than 9 million trucks, rail cars, water vessels, and airplanes in 2004. (Table L-6)

Condition

- The condition of interstates and other freeways or expressways generally improved between 1994 and 2004, although some road categories (rural and urban collectors and urban minor arterials) showed a higher percentage of roads in poor or mediocre condition. (Table L-8 in Chapter 2)
- The number of deficient bridges declined 16 percent between 1995 and 2005, while the total number of bridges increased 2 percent. (Table L-9)
- Seventy-five percent of airports identified in the National Plan of Integrated Airport Systems as significant to national air transportation were in “good” condition in 2005; only 4 percent were in poor condition. (Table L-10)

Vehicle weights and other vehicle characteristics

- The median age of passenger cars in 2005 was 9 years. (Table E-4 in Chapter 2)
- The average age of full-size transit buses in 2004 was 7.2 years. (Table E-5)
- The average age of all commercial aircraft in 2003 was 11 years. (Table E-8)

- Light trucks (a category that includes vans, pickup trucks and sport utility vehicles) under 10,001 pounds increased 45 percent between 1992 and 2002, the last year for which detailed data are available, while medium trucks (between 10,001 and 19,000 pounds) increased 52 percent. Heavy trucks (greater than 26,000 pounds) increased 27 percent. (Table E-1)
- Between 1998 and 2005, the average freight loading capacity of oceangoing vessels calling at U.S. ports increased by nearly 4,800 deadweight tons. (Table E-2)
- Average loaded railcar weights have declined from the high point of 66.6 tons in 1996 to 61.0 tons in 2005. (Table E-3)

Traffic flows for all modes of transportation

- U.S. vehicle-miles of travel (vmt) for all modes of transportation approached 3 trillion in 2004, compared to 2.4 trillion in 1994. Vehicle-miles grew for all modes, but the most rapid vmt growth was for air carriers, which increased by 50 percent. (Table B-1 in Chapter 2)
- Passenger-miles of travel (pmt) in the United States exceeded 5.0 trillion in 2004, or about 17,500 miles for every man, woman, and child. (Table B-2)
- Almost 86 percent of pmt in 2003 was in personal vehicles (passenger cars and light trucks, which include sport utility vehicles, pickup trucks, and minivans). Air carriers accounted for another 10 percent of pmt. (Table B-2)
- Vehicle-miles of transit grew by 26 percent between 1994 and 2003, to 4 billion miles, while passenger-miles of transit grew 21 percent to 48 billion. (Tables B-1 and B-2)
- In 2004, travelers from other countries made 185 million visits to the United States, while travelers from the United States made 153 million visits to foreign countries. (Table B-12)
- In 2005, 249 million people (both U.S. residents and residents of other countries) crossed into the United States from Canada and Mexico in personal vehicles, compared to 266 million in 1995 and 331 million in 1999, the high point. The number of pedestrians crossing into the country in 2005 was 46.4 million, compared to 33.5 million in 1995, and 52.2 million in 2001. (Tables B-8 and B-11)
- Freight ton-miles within the United States amounted to 4.6 trillion in 2004, compared to 3.9 trillion in 1994. (Table B-3)
- In 2005, 11.5 million trucks crossed into the United States from Mexico and Canada, and 1.8 million full rail containers crossed into the United States. (Tables B-5 and B-7)

Box 1

Domestic Freight Shipments

The Research and Innovative Technology Administration's Bureau of Transportation Statistics and the Federal Highway Administration have developed new estimates of the amount of freight shipped in the United States. The new estimates combine data from the Commodity Flow Survey – the most comprehensive nationwide source of freight data – and data from other sources to provide the most complete picture of freight movements in America yet available. The BTS publication, *Freight in America*, discusses these estimates in detail. The data shown below highlight some of the multimodal findings from *Freight in America*.

- Freight shipments weighing more than 19 billion tons (an average of 68 tons per capita) and valued at \$13 trillion (an average of \$45,324 per capita) were transported on the nation's transportation network in 2002. (Table B-4 in Chapter 2)
- Trucks carried almost 12 billion tons of freight valued at \$9 trillion in 2002. (Table B-4)
- The air mode (including truck and air) carried 6 million tons of freight valued at \$563 billion in 2002. (Table B-4)
- Rail carried almost 2 billion tons of freight valued at \$392 billion in 2002. (Table B-4)
- Maritime ships carried 1.7 billion tons of cargo valued at \$673 billion in 2002. (Table B-4)
- Pipelines carried 3.5 billion tons of crude oil and petroleum products valued at \$896 billion in 2002. (Table B-4)

Travel times and measures of congestion

- Highway travel times increased between 1993 and 2003 in all but 3 of the 85 urban areas (98 percent) studied by the Texas Transportation Institute. (Table D-1 in Chapter 2)
- It took 37 percent longer, on average, in 2003 to make a peak period trip (from 6 to 9 a.m. and 4 to 7 p.m.) in these urban areas compared with the time it would take if traffic were flowing freely. (Table D-1)
- About 75 percent of domestic air flights arrived on time in 2006 and 1996. (Table D-2)
- The scheduled travel time for all flights rose by 20 percent between 1990 and 2004. During the same period, the actual travel time rose by only 19 percent. (Table D-3)
- Seventy percent of Amtrak trains arrived at their final destination on time in 2005. Short-distance trains—those with runs of less than 400 miles—consistently registered better on-time performance than long-distance trains. (Table D-6)
- Average line-haul speed of Class I freight railroads has been generally decreasing since a peak in early 2002. Between the second quarter 2002 and the fourth quarter 2005, line-haul speed decreased 19 percent. (Table D-4)
- The average wait time in 2004 for passenger vehicles crossing the border between the United States and Canada was 6 minutes, and for passenger vehicles crossing between the United States and Mexico the average wait time was 15 minutes. The average wait time in 2004 for commercial vehicles entering the United States from Canada was 8 minutes, and the average wait time for those entering from Mexico was 7 minutes. (Tables D-7 and D-8)

Availability and use of mass transit and other forms of for-hire passenger transportation

- U.S. domestic commercial airlines carried 701 million passengers in 2005. (Table H-1 in Chapter 2)
- Total domestic enplanements in the United States increased 33 percent between 1995 and 2005. Enplanements at large hubs increased only 23 percent, while enplanements at small hubs increased 58 percent. (Table H-1)
- Amtrak carried 25.1 million riders in fiscal year 2005. Ridership increased about 23 percent between 1995 and 2005. (Table H-2)
- Approximately 65 percent of all unlinked transit passenger trips (6.2 billion trips in 2004) were within the service area of only 20 transit authorities. New York City alone accounted for 28 percent of all transit trips in 2004. (Table H-3)
- There were 49 billion transit passenger-miles traveled (pmt) in 2004 compared with 39.6 billion pmt in 1994, an increase of 24 percent. As they have historically, transit buses had the largest pmt share in 2004, generating 21 billion pmt or 44 percent of all transit pmt. (Table H-4)
- Measured in unlinked trips, transit ridership has grown 16 percent since 1994 to 8.9 billion unlinked trips in 2004. Bus ridership comprised the majority of unlinked trips (5.1 billion) in 2004. However, rail transit ridership – including heavy rail, light rail, and commuter rail – with 3.5 billion trips in 2004, posted stronger growth (26 percent) between 1994 and 2004. (Table H-5)
- As of 2004, 58 percent of transit rail stations had complied with the Americans with Disabilities Act (ADA) accessibility requirements. This represented a 32-percent increase from 1994. Ninety-eight percent of transit buses, also subject to ADA requirements, were equipped with lifts or ramps by 2004. (Tables H-6 and H-7)

Box 2

Personal Travel

The National Household Travel Survey, last conducted in 2001, is a U.S. Department of Transportation effort sponsored by the Research and Innovative Technology Administration's Bureau of Transportation Statistics and the Federal Highway Administration to collect data on both long-distance and local travel by the American public. The survey gathers trip-related data such as mode of transportation, duration, distance, and purpose of trip. It also gathers demographic, geographic, and economic data for analysis purposes. U.S. residents on average travel about 14,500 miles each year on daily trips, more than half way around the world.

- U.S. residents' total 1.4 trillion person-miles of long-distance travel a year on about 2.6 billion long distance trips. (Table F-2 in Chapter 2)
- Nine out of 10 long-distance trips are by personal vehicle (Table F-2)
- Eighty-eight percent of people commuting to work use personal vehicles (Table F-5)
- There are more personal vehicles per household (1.9) in the United States than drivers (1.8). (Table F-4)

Safety and Security

Reducing transportation-related deaths, injuries, and property damage is a priority goal of the transportation community. In most categories fatality rates in relation to miles traveled have declined over time, which means the transportation system is safer than in prior years. While much progress has been made in reducing the number of deaths from their high point in the 1970s, the absolute number of fatalities and injuries remains very high, and some categories (e.g., fatalities among people on motorcycles) have shown recent increases. Security issues for travelers, vehicles, and transportation systems encompass vulnerability to terrorism attacks, impact of criminal activities, and system breakdowns (short- and long-term) because of natural disasters.

Safety and security for travelers, vehicles, and transportation systems

Safety

- There were nearly 45,000 fatalities in transportation accidents in the United States in 2004, of which 95 percent involved highway motor vehicles (Table J-2 in Chapter 2).
- In 2005, 43,443 motorists and nonmotorists were killed in crashes involving motor vehicles, up 1% compared with 2004, and about 2.7 million people were injured. (Tables J-1 and J-3)
- There were 1.47 fatalities per 100 million vehicle-miles of highway travel in 2005. (Tables J-1 and B-1)
- There were 5,665 pedestrians and pedalcyclists killed in traffic crashes in 2005. (Table J-1)
- More than 4,500 motorcyclists were killed in traffic crashes in 2005, 13% more than in 2004. (Table J-1)
- There were 248 transit fatalities in 2004. (Table J-1)
- Twenty-two people were killed in U.S. domestic commercial aviation accidents in 2005, while 562 fatalities resulted from general aviation accidents. (Table J-1)
- There were 36 waterborne commerce vessel-related fatalities in 2004 and 676 recreational boating fatalities in 2004. (Table J-1)
- There were 19 pipeline fatalities in 2005. (Table J-1)

- Of the 888 railroad-related fatalities in 2005, 357 fatalities were at highway-rail grade crossings, and the other 531 fatalities were rail only. Sixteen passengers on trains were killed. (Table J-1)
- An estimated 2.8 million people suffered some kind of transportation-related injury in 2004. Most of these injuries, about 99 percent, resulted from highway crashes. (Table J-3)

Security

- The total number of prohibited items intercepted at airport screening checkpoints doubled between 2004 and 2005; the large increase was primarily due to the prohibition of lighters on board beginning in April 2005. (Table J-7 in Chapter 2)

Frequency of vehicle and transportation facility repairs and other interruptions of transportation service

- Class I railroad companies maintained 167,312 miles of track in 2004, down from 183,685 miles of track in 1994. In 2004, rail companies replaced 591,400 tons of rail (18 percent less than in 1994) and 13.3 million crossties (8 percent more than in 1994). Railroads also periodically replace or rebuild locomotives and freight cars. On average, new and rebuilt locomotives made up around 4 percent of Class I railroad fleets between 1995 and 2005. (Tables I-2, I-3 and I-4 in Chapter 2)
- Transit service interruptions for all types of transit decreased 20 percent between 1995 and 2000 and 18 percent between 2001 and 2004. (Table I-5)
- Forty-eight percent of downtime at St. Lawrence Seaway locks in 2005 was caused by weather; the next largest cause of downtime was vessel incidents. (Table I-6)
- There were more than 2 million roadside truck inspections in 2005, with about 490,000 out-of-service orders issued for serious violations. (Table I-1)

Global Connectivity

Transportation is an essential component of the domestic and world economy. As a sizable element of the country's gross domestic product, transportation employs millions of people and consumes substantial goods and services. It also enables economic growth and development. Transportation contributes to economic activity and to a nation's global competitiveness as a service, an industry, and an infrastructure. It affects the price competitiveness of domestic goods and services because final market prices incorporate transportation costs.

Productivity in various parts of the transportation sector

- Labor productivity for the rail sector increased 65 percent from 1993 to 2003. Despite a decline of 6 percent between 2000 and 2001, air transportation labor productivity grew 32 percent over the entire period from 1993 to 2003. (Table A-1 in Chapter 2)
- Multifactor productivity of all business sectors combined increased 10 percent between 1991 and 2001, while multifactor productivity in air transportation increased 16 percent. Data are not available for the same period for rail transportation, but between 1991 and 1999, multifactor productivity in this industry increased by 26 percent (an annual rate of 3 percent). (Table A-2)

Transportation costs for passenger travel and goods movement

- U.S. households spent almost \$7,500 on average on transportation in 2004 – second in spending behind housing. (Table G-3 in Chapter 2)
- Driving an automobile 15,000 miles per year cost 56¢ per mile in 2004, or 44 percent more than it did in 1994, when total costs per mile were 39¢. (Table G-6)
- For those using transit, the average fare ranged from 88¢ to \$1.02 between 1995 and 2005. (Table G-4)
- On average, intercity trips via Amtrak cost \$49.08 in 2005, up 23 percent from \$39.92 in 1995. Meanwhile, average intercity Class I bus fares rose 50 percent, from \$20.10 to \$30.11 between 1995 and 2002. (Table G-4)
- RITA's BTS Air Travel Price Index (ATPI) comprises three indexes: U.S. origin flights, foreign origin flights, and combined U.S and foreign origin flights. The ATPI "U.S. origin only" index increased 17 percent between the first quarter of 1995 and the second quarter of 2006. During the same period, the ATPI "Foreign origin only" index decreased 3.6 percent. (Table G-5)

Box 3

Government Transportation Revenues and Expenditures

The Research and Innovative Technology Administration's Bureau of Transportation Statistics gathers Government Transportation Financial Statistics (GTFS) data from various sources — including the Office of Management and Budget, the U.S. Census Bureau, the Federal Highway Administration, the Federal Aviation Administration, the U.S. Army Corps of Engineers, the Saint Lawrence Seaway Development Corporation, the National Aeronautics and Space Administration, and other federal government agencies — that provide statistics on transportation-related revenues and expenditures of the federal, state, and local governments for all modes of transportation. GTFS also contains federal budget authority and obligations, and grants to state and local governments. Statistics on federal expenditures, budget authority, and obligations are provided at the agency and program level. All data are reported in current and chained 2000 dollars except for federal budget authority and obligations, which are provided in current dollars only.

- Federal transportation revenues targeted to finance transportation programs increased 3 percent from \$33 billion in 1993 to \$42 billion in 2003 (in chained 2000 dollars). (Table C-1 in Chapter 2)
- Spending on building, maintaining, operating, and administering the nation's transportation system by all levels of government totaled \$176 billion in 2001 (chained 2000 dollars). (Table C-3)
- In 2003, federal government spending on highways amounted to \$32 billion and accounted for 55 percent of total federal government transportation expenditures. (Table C-4)
- Gross government transportation investment, including infrastructure and vehicles, is a measure of public transportation capital expansion. Gross investment has risen steadily over the last decade from \$70 billion in 1993 to \$86 billion in 2003 (in chained 2000 dollars). Infrastructure accounted for 92 percent of government transportation investment in 2003; 75 percent of infrastructure investment was allocated to highways. (Tables C-5 and C-7)
- Net federal subsidies for passenger transportation have increased from \$4,162 million in 1993 to \$8,195 million in 2002 (in chained 2000 dollars). (Table C-8)

Transportation-related variables that influence the domestic economy and global competitiveness

- U.S. prices for transportation goods and services in 2002 were relatively lower than prices in 19 out of 24 Organization for Economic Cooperation and Development countries. However, one of the nation's top merchandise trade partners, Mexico, had lower relative prices in 2002 than the United States. (Table M-1 in Chapter 2)
- The United States traded \$356.7 billion (in current dollars) of transportation-related goods (e.g., cars, trains, boats, and airplanes and their related parts) in 2005 with its partners. As is the case with its overall international trade, the United States had a merchandise trade deficit in transportation-related goods (with an excess of imports over exports) totaling \$82.3 billion in 2005. (Table M-2)
- U.S. trade in transportation services in 2005 totaled \$151.3 billion (in current dollars). The United States had a surplus in transportation services from 1995 through 1997. The trade surplus was highest in 1995. By 2005, however, 58 percent of trade was imports (payments to foreign countries), resulting in a trade deficit of \$25.0 billion. (Table M-4)
- Transportation-related demand accounted for more than 10 percent of U.S. Gross Domestic Product in 2004. This broad measure includes consumer and government purchases of goods and services ranging from vehicles, fuels, and insurance to road building and public transportation. (Table M-6)
- The contribution of for-hire transportation industries to the U.S. economy, as measured by their value added (or net output), increased (in chained 2000 dollars) from \$242.7 billion in 1995 to \$335.2 billion in 2005. In the same time period, this segment's share in the GDP fluctuated slightly, at around 3 percent. (Table M-5)
- More than 12 million people worked in a transportation-related job in the United States in 2004. That is equal to approximately 1 out of every 10 workers. (Table M-7)

Energy and Environment

As people travel and freight is transported, damage can occur to the human and natural environment. Transportation also impacts the environment when transportation equipment and fuels are produced and infrastructure is built, during repair and maintenance of equipment and infrastructure, and when equipment and infrastructure are no longer usable and are discarded and dismantled. The extent of damage throughout these life cycles of transportation fuel, equipment, and infrastructure can vary by mode. In all cases, actual impacts on the human and natural environment are dependent on ambient levels or concentrations of pollutants and rates of exposure. Many of the environmental consequences of transportation arise from widespread use of petroleum, such as, air quality impacts from burning fossil fuels and water quality impacts from spills while transporting petroleum.

Consequences of transportation for the human and natural environment

- The transportation sector used 17 percent more energy in 2005 (28.0 quadrillion British thermal units—Btu) than it did in 1995 (24.0 quadrillion Btu). (Table K-1 in Chapter 2)
- Transportation consumed 67% of U.S. petroleum usage in 2005. (Table K-3)
- Highway vehicles emitted 82% of all transportation carbon dioxide emissions in 2004. (Table K-4)
- Transportation emitted 58% of the nation's pollution from carbon monoxide, 45% of nitrogen oxides, 36% of volatile organic compounds, and 3% of sulfur dioxide in 2002. All of these emissions have generally declined in the last decade despite a rise in vehicle-miles of travel. (Table K-5)
- Travel in passenger cars was 6.5% more energy efficient in 2004 than in 1994. (Table K-6)

State of Transportation Statistics

Resource constraints in the past year have resulted in the reduction in scope or discontinuation of two transportation statistics data series that extend back several decades—the passenger travel and vehicle inventory and use surveys.

Passenger travel survey: The U.S. Department of Transportation has undertaken nationwide passenger travel surveys since the late 1960s; long-distance travel has also been the subject of several surveys, extending back to 1977. RITA's BTS will not conduct a long-distance travel survey in 2007/2008 as had been planned, and the Federal Highway Administration will require additional resources if it is to field a daily (largely local) travel survey in 2008 that would produce a nationally representative sample. FHWA is continuing its add-on programs. Under the add-on, states can provide funds to carryout surveys in their own areas. Several states and at least one metropolitan area are participating.

Vehicle inventory and use survey: The Census Bureau has conducted a truck or vehicle inventory and use survey as part of the economic census since 1963. The 2002 version of this survey covered light, medium, and heavy trucks. The survey has been discontinued.

Likewise, the U.S. Army Corps of Engineers (USACE) has discontinued one of its international maritime statistics data sets—the U.S. foreign trade-based data series. Monthly U.S. foreign waterborne trade and transportation data will no longer be publicly available from the USACE. The U.S. foreign waterborne commerce annual data set will be publicly available but will not include cargo value. The data will continue to be collected by the Census Bureau of the U.S. Department of Commerce and Customs and Border Protection of the Department of Homeland Security, the monthly data will no longer be released by the USACE.

Finally, due to resource constraints, the U.S. Department of Transportation and the National Resource Council have not put in place an agreement to carry out a transportation information needs assessment called for in SAFETEA-LU¹. The assessment was to comprehensively examine information needs at the federal, state, and local levels by 2008 and identify priorities and costs.

There is continuing recognition in the transportation community, however, of the need to develop priorities for transportation data needs. In a separate effort, the Transportation Research Board (TRB) has engaged its many committees of professionals in transportation fields to get their input on key data needs. TRB has just

¹ Section 5601 (d) of the Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

issued a circular detailing the results and has suggested that its committees annually evaluate data needs, priorities, and costs.² Meetings of the TRB committees attract transportation professionals from all fields and regions of the country. Whether there will be a sustained commitment for action that is broader than transportation professionals remains to be seen: Availability of good data for transportation decisionmaking is ultimately a question of resources. The importance of good data for effective transportation decisionmaking will continue, but it is uncertain whether sufficient data will continue to be available to meet the needs of decisionmakers.

² Transportation Research Board, Data and Information Systems Section, *Transportation Research Circular E-C109: Transportation Information Assets and Impacts* (Washington, DC: Transportation Research Board of the National Academy of Sciences) December 2006

Chapter 2

Transportation Indicators

Introduction

Annually, the Bureau of Transportation Statistics (BTS) of the U.S. Department of Transportation’s Research and Innovative Technology Administration (RITA) reports on 13 transportation data topics designated in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy For Users (SAFETEA-LU). The table below lists the topics, as described in SAFETEA-LU.

In Chapter 2, each topic is represented by a set of data tables. For most data, a 10-year span of data is reported. Many of the indicators also have a graphic representation to demonstrate changes over time.

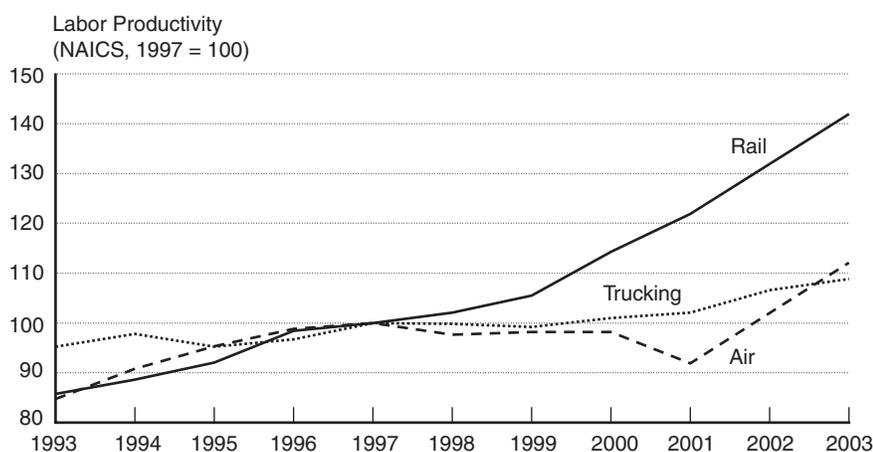
Data Reporting Requirements in SAFETEA-LU Sec. 5601(c)(5)

Subsection	Topic
A	Productivity in various parts of the transportation sector
B	Traffic flows for all modes of transportation
C	Elements of the Intermodal Transportation Database
D	Travel times and measures of congestion
E	Vehicle weights and other vehicle characteristics
F	Demographic, economic, and other variables influencing traveling behavior, including choice of transportation mode, and goods movement
G	Transportation costs for passenger travel and goods movement
H	Availability and use of mass transit (including number of passengers served by each mass transit authority) and other forms of for-hire passenger travel
I	Frequency of vehicle and transportation facility repairs and other interruptions of transportation service
J	Safety and security for travelers, vehicles, and transportation systems
K	Consequences of transportation for the human and natural environment
L	The extent, connectivity, and condition of the transportation system, building on the National Transportation Atlas Database
M	Transportation-related variables that influence the domestic economy and global competitiveness.

Transportation Sector Productivity

Labor productivity, a measure of efficiency, is the output resulting from labor input.

TABLE A-1 Labor Productivity of the For-Hire Transportation Industries: 1993–2003



NAICS categories (1997=100)

SIC categories (1987=100)

	NAICS categories (1997=100)			SIC categories (1987=100)		
	Railroad	Trucking, long distance	Air	Trucking, except local	Bus carriers, Class I	Petroleum pipeline
1993	86	95	85	127	109	104
1994	89	98	91	130	99	108
1995	92	95	95	125	110	116
1996	98	97	99	131	106	131
1997	100	100	100	132	125	134
1998	102	100	98	130	105	137
1999	106	99	98	132	135	145
2000	114	101	98	131	112	141
2001	122	102	92	U	U	U
2002	132	107	102	U	U	U
2003	142	109	112	U	U	U

KEY: U = data are unavailable.

NOTES: Output per hour worked is based on the number of paid hours. Labor productivity measures quality-adjusted ton- and passenger-miles per hour. Quality adjustment corrects for differences in services and handling, e.g., the difference between flying first class and coach or differences in the handling requirements and revenue generation of high- and low-value commodities. Railroad includes line-haul railroads primarily engaged in transportation of passengers and cargo over a long distance within a rail network. Trucking comprises establishments engaged in providing long-distance general freight trucking, usually between metropolitan areas that may cross North American country borders. Air includes establishments that provide scheduled and nonscheduled air transportation of passengers and cargo using aircraft, e.g., airplanes and helicopters.

These productivity measures capture railroad, long-distance trucking, and air transportation as defined by the North American Industry Classification System (NAICS), whereas those for trucking except local, bus, and petroleum pipeline are defined by the Standard Industrial Classification (SIC) system. At the time this report was prepared, the Bureau of Labor Statistics did not have plans to continue estimating productivity measures for petroleum pipeline, trucking, and bus carriers because of a lack of reliable data.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Industry Productivity, available at <http://www.bls.gov/lpc/>, as of August 2006.

Multifactor productivity measures the changes in output per unit of combined input and is a measure of the efficiency with which inputs are utilized. Inputs include labor, capital services, and intermediate purchases. Examples of nonlabor inputs include rail cars and airplanes, as well as fuel.

TABLE A-2 Multifactor Productivity: 1991–2001
Index: 1991 = 100.0

	Railroad transportation	Air transportation	Business sector (all industries)
1991	100.0	100.0	100.0
1992	106.4	103.6	102.3
1993	109.8	100.5	102.8
1994	112.2	107.0	103.9
1995	118.8	111.3	104.1
1996	123.2	115.5	105.8
1997	123.3	116.8	107.1
1998	122.0	115.7	108.5
1999	125.9	117.8	109.4
2000	U	121.3	111.1
2001	U	116.2	109.9

KEY: U = data are unavailable.

NOTES: Rail productivity data are only available through 1999. Source data are indexes with base years of 1997 (air), 2000 (business), and 1987 (rail). The Bureau of Transportation Statistics reindexed these data so that 1991 is the base year for all.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, available at <http://www.bls.gov/>, as of August 2006. **Business sector**—"Most Requested Statistics." **Rail**—"Industry Multifactor Productivity Data Table by Industry, 1987–1999." **Air**—"Multifactor Productivity Data For Air Transportation."

Transportation Traffic Flows

FIGURE B-1 Index of U.S. Vehicle-Miles: 1994-2004

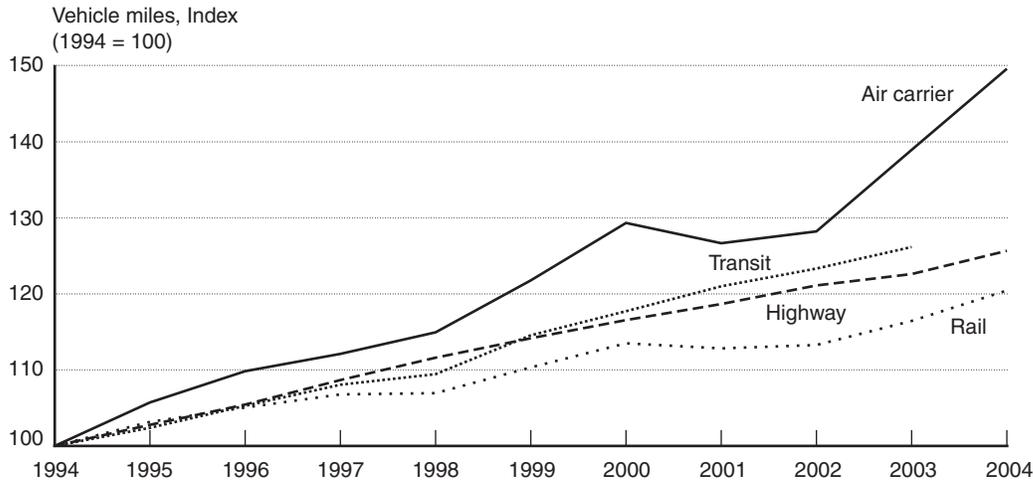


TABLE B-1 U.S. Vehicle-Miles: 1994-2004
Millions

	Air carrier, large certificated, domestic, all services	General aviation	Highway	Transit (car-miles)	Rail (train-miles)
1994	4,380	3,358	2,357,588	3,468	475
1995	4,629	3,795	2,422,696	3,550	490
1996	4,811	3,524	2,485,848	3,650	499
1997	4,911	3,877	2,561,695	3,746	507
1998	5,035	N	2,631,522	3,794	508
1999	5,332	N	2,691,056	3,972	524
2000	5,664	N	2,746,925	4,081	539
2001	5,548	N	2,797,287	4,196	536
2002	5,616	N	2,855,508	4,277	538
2003	6,085	N	2,890,450	4,375	553
2004	6,552	N	2,962,513	U	572

KEY: N= data do not exist; U= data are unavailable.

NOTES: *General aviation* data include all operations other than those operating under 14 CFR 121 and 14 CFR 135. Data for 1996 are not comparable to earlier years. *Transit* rail modes are measured in car-miles. Car-miles measure individual vehicle-miles in a train. 2003 transit data are preliminary. A train-mile is the movement of a train, which can consist of multiple vehicles (cars), the distance of 1 mile. This differs from a vehicle-mile, which is the movement of 1 vehicle the distance of 1 mile.

SOURCE: Various sources, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics 2006*, table 1-32, available at <http://www.bts.gov/>, as of March 2006.

FIGURE B-2 Index of U.S. Passenger Miles: 1994–2004

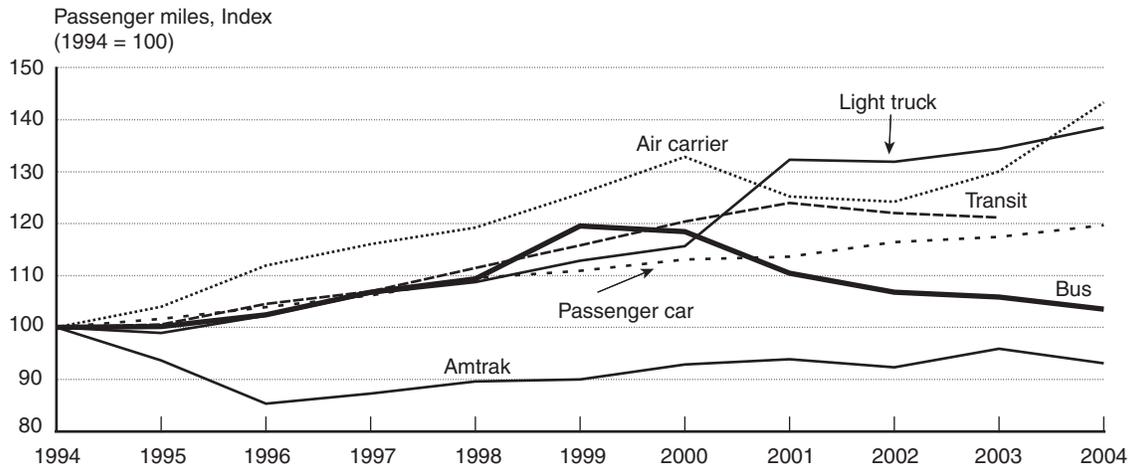


TABLE B-2 U.S. Passenger Miles: 1994–2004
Millions

	Air, certificated, domestic, all services	Passenger car	Light truck	Bus	Transit (car-miles)	Amtrak
1994	388,399	2,249,742	1,269,292	135,871	39,585	5,921
1995	403,888	2,286,887	1,256,146	136,104	39,808	5,545
1996	434,652	2,337,068	1,298,299	139,136	41,378	5,050
1997	450,612	2,389,065	1,352,675	145,060	42,339	5,166
1998	463,262	2,463,828	1,380,557	148,558	44,128	5,304
1999	488,357	2,494,870	1,432,625	162,445	45,857	5,330
2000	516,129	2,544,457	1,467,664	160,919	47,666	5,498
2001	486,506	2,556,481	1,678,853	150,042	49,070	5,559
2002	482,310	2,620,389	1,674,792	145,124	48,324	5,468
2003	505,159	2,641,885	1,706,103	143,801	47,972	5,680
2004	556,690	2,693,872	1,758,542	140,716	U	5,511

KEY: U= data are unavailable.

NOTES: *Passenger car* does not include motorcycle data. Motor bus and demand response are included in both *Bus* and *Transit*, resulting in some double counting. *Amtrak* does not include contract commuter passengers. The data presented here may not be consistent with other sources, particularly data that are revised on an irregular or frequent basis.

SOURCE: Various sources, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics 2006*, table 1-37, available at <http://www.bts.gov/>, as of March 2006.

FIGURE B-3 Index of Ton-Miles of Freight: 1994–2004

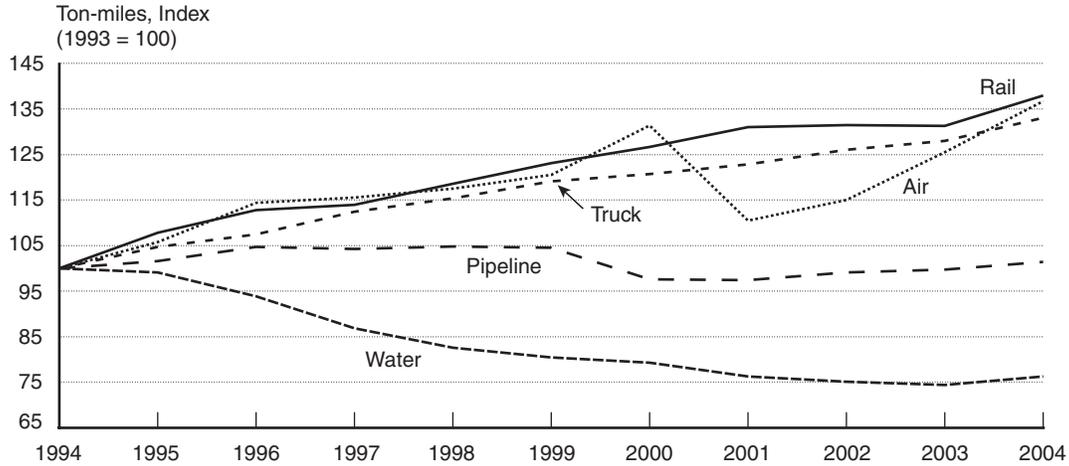


TABLE B-3 Ton-Miles of Freight: 1994–2004
Billions

	Air	Truck	Railroad	Water	Oil and Oil Products Pipeline	Natural Gas pipeline	Total
1994	12.0	987.9	1,221.1	814.9	591.4	317.6	3,945.0
1995	12.7	1,034.0	1,317.0	807.7	601.1	331.6	4,104.2
1996	13.8	1,062.0	1,377.1	764.7	619.2	337.4	4,174.1
1997	13.9	1,110.6	1,391.1	707.4	616.5	340.0	4,179.4
1998	14.1	1,139.8	1,448.4	672.8	619.8	333.7	4,228.6
1999	14.5	1,176.4	1,503.7	655.9	618.0	332.2	4,300.6
2000	15.8	1,192.8	1,546.3	645.8	577.0	350.9	4,328.6
2001	13.3	1,213.2	1,599.3	621.7	576.0	334.0	4,357.5
2002	13.8	1,245.5	1,605.5	612.1	586.0	346.0	4,409.0
2003	15.1	1,264.8	1,603.6	606.1	590.0	335.2	4,414.8
2004	16.5	1,314.6	1,684.5	621.2	599.6	338.4	4,574.7

NOTE: Data may not add to total because of independent rounding.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, special tabulation.

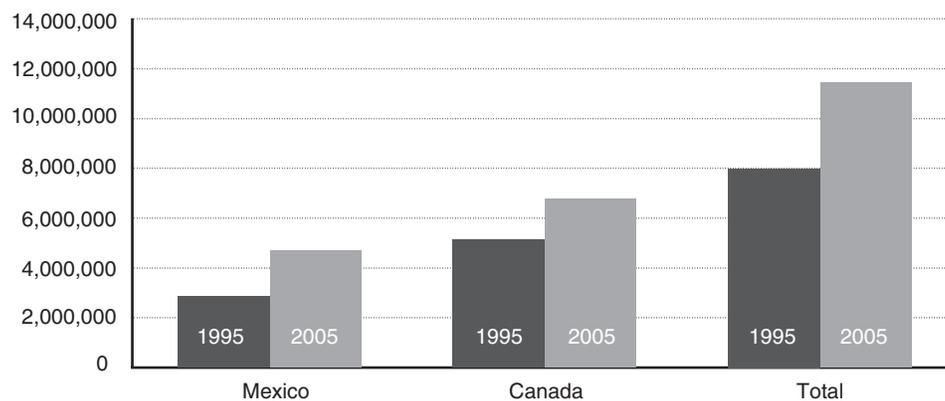
TABLE B-4 Value and Weight of U.S. Commercial Freight Shipments: 2002

	Value (billion \$)			Tons (million)		
	CFS 2002	Non CFS	Total	CFS 2002	Non CFS	Total
All Modes	8,397	4,655	13,052	11,668	7,819	19,487
Single modes	7,049	4,549	11,599	11,087	7,807	18,894
Truck	6,235	2,840	9,075	7,843	3,870	11,712
Rail	311	81	392	1,874	105	1,979
Water	89	584	673	681	987	1,668
Air (incl. truck and air)	265	298	563	4	3	6
Pipeline	149	747	896	685	2,844	3,529
Multiple modes	1,079	42	1,121	217	12	229
Parcel, post, or courier	988	34	1,022	26	2	27
Truck and rail	70	7	77	43	9	52
Other multiple modes	22	1	22	148	2	150
Unknown modes	269	62	331	365	—	365

KEY: — = data cell equal to zero or less than 1 unit of measure; CFS=Commodity Flow Survey.

NOTES: *Truck* as a single mode includes shipments that were made by only private truck, only for-hire truck, or a combination of private and for-hire truck. *Pipeline* includes shipments of crude petroleum. *Other multiple modes* include combination of truck and water, rail and water, and other combinations. The composite estimates include Commodity Flow Survey (CFS) data and out-of-scope shipments for sectors that are not included in the CFS such as imports, logging, construction, retail, services, publishing, municipal solid waste, and household and business moves. The composite estimates also include estimates of in-scope shipments for sectors that are covered in CFS but may have been underestimated due to small sample size, such as exports, intermodal, and petroleum products.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Freight in America* (Washington, DC: 2006), table 3.

FIGURE B-5 Incoming Truck Crossings to the United States from Mexico and Canada: 1995 and 2005**TABLE B-5 Incoming Truck Crossings to the United States from Mexico and Canada: 1995–2005**
Number

	Mexico	Canada	Total
1995	2,860,625	5,135,010	7,995,635
1996	3,254,084	5,431,096	8,685,180
1997	3,689,665	5,826,974	9,516,639
1998	3,946,543	6,270,934	10,217,477
1999	4,358,121	6,817,447	11,175,568
2000	4,525,579	7,048,128	11,573,707
2001	4,304,959	6,776,909	11,081,868
2002	4,426,593	6,915,973	11,342,566
2003	4,238,045	6,728,228	10,966,273
2004	4,503,688	6,903,882	11,407,570
2005	4,675,887	6,783,944	11,459,831

NOTE: Data do not include privately owned pickup trucks.

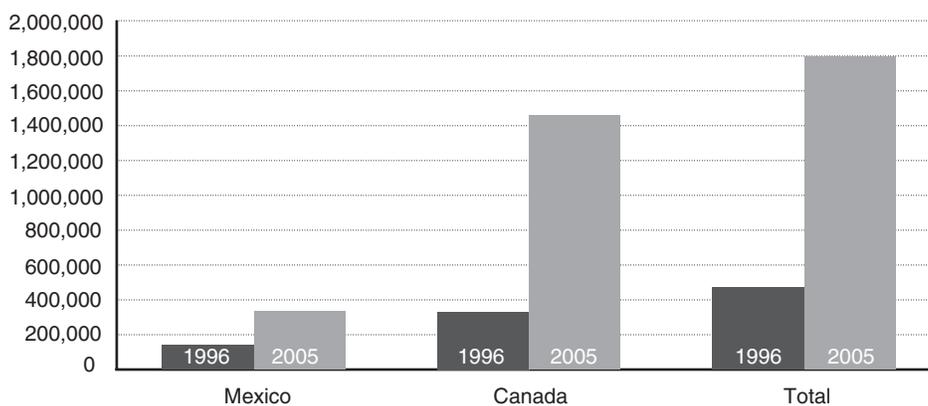
SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Border Crossing/Entry Data, available at <http://www.bts.gov/itt/>, as of June 2006.

TABLE B-6 Incoming Train Crossings to the United States from Mexico and Canada: 1995–2005

Number

	Mexico	Canada	Total
1995	9,432	31,021	40,453
1996	7,509	31,457	38,966
1997	7,678	32,863	40,541
1998	5,681	35,435	41,116
1999	6,019	32,930	38,949
2000	7,108	33,447	40,555
2001	7,469	33,577	41,046
2002	7,757	32,822	40,579
2003	7,774	34,137	41,911
2004	7,844	33,267	41,111
2005	9,458	32,807	42,265

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Border Crossing/Entry Data, available at <http://www.bts.gov/itt/>, as of June 2006.

FIGURE B-7 Incoming Full Rail Containers to the United States from Mexico and Canada: 1996 and 2005**TABLE B-7 Incoming Full Rail Containers to the United States from Mexico and Canada: 1996–2005**

	Mexico	Canada	Total
1996	142,236	329,983	472,219
1997	156,064	464,081	620,145
1998	175,490	903,584	1,079,074
1999	226,014	1,150,936	1,376,950
2000	266,235	1,215,439	1,481,674
2001	266,572	1,331,382	1,597,954
2002	269,550	1,386,143	1,655,693
2003	266,469	1,402,388	1,668,857
2004	305,748	1,484,634	1,790,382
2005	335,611	1,458,016	1,793,627

KEY: U = data are unavailable.

NOTE: A container is any conveyance entering the United States used for commercial purposes, full or empty. Data here apply only to the number of full rail containers arriving at a surface port and include containers moving as in-bond shipments.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Border Crossing/Entry Data, available at <http://www.bts.gov/itt/>, as of June 2006.

FIGURE B-8 Passenger Crossings into the United States by Personal Vehicles from Mexico and Canada: 1995–2005

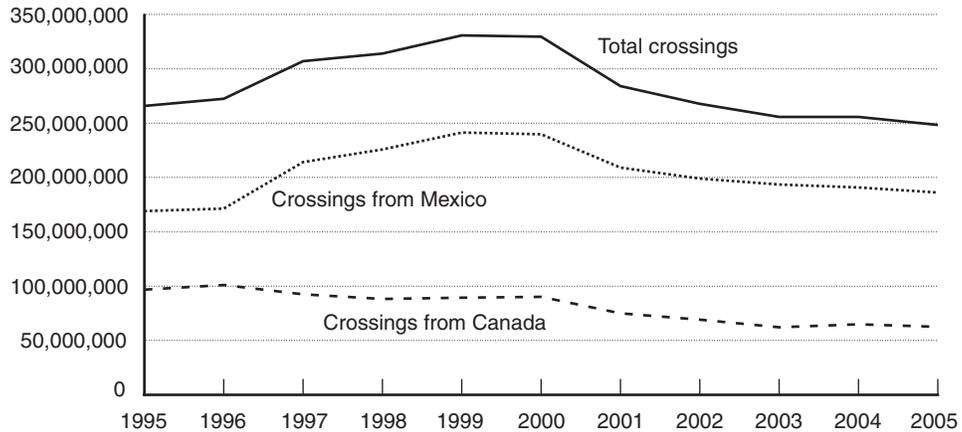


TABLE B-8 Passenger Crossings into the United States by Personal Vehicles from Mexico and Canada: 1995–2005

	Mexico	Canada	Total
1995	169,152,429	96,806,745	265,959,174
1996	171,522,486	101,070,734	272,593,220
1997	214,354,991	92,646,989	307,001,980
1998	226,012,670	88,283,187	314,295,857
1999	241,522,310	89,369,195	330,891,505
2000	239,794,552	90,046,948	329,841,500
2001	209,105,846	74,971,105	284,076,951
2002	199,020,692	68,986,616	268,007,308
2003	193,697,482	62,136,536	255,834,018
2004	190,936,607	64,848,466	255,785,073
2005	186,067,448	62,501,376	248,568,824

NOTES: *Passengers in personal vehicles* (privately owned vehicles) include persons arriving by private automobile, pickup truck, motorcycle, recreational vehicle, taxi, ambulance, hearse, tractor, snow-mobile, and other motorized private ground vehicles.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Border Crossing/Entry Data, available at <http://www.bts.gov/itt/>, as of June 2006.

TABLE B-9 Passenger Crossings into the United States by Bus from Mexico and Canada: 1995–2005

	Mexico	Canada	Total
1995	1,571,320	3,530,042	5,101,362
1996	1,943,697	3,870,081	5,813,778
1997	2,772,666	4,124,253	6,896,919
1998	3,638,812	3,969,672	7,608,484
1999	3,358,118	4,367,472	7,725,590
2000	3,465,916	4,872,943	8,338,859
2001	3,366,795	4,456,436	7,823,231
2002	3,926,154	4,212,863	8,139,017
2003	3,747,337	3,779,970	7,527,307
2004	3,388,517	3,890,380	7,278,897
2005	3,169,779	3,854,818	7,024,597

NOTE: *Passengers in buses* include both driver(s) and passengers arriving by bus requiring U.S. Customs processing.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Border Crossing/Entry Data, available at <http://www.bts.gov/itt/>, as of June 2006.

TABLE B-10 Passenger Crossings into the United States by Train from Mexico and Canada: 1995–2005

	Mexico	Canada	Total
1995	13,222	226,796	240,018
1996	11,285	213,596	224,881
1997	11,504	249,106	260,610
1998	12,691	245,933	258,624
1999	16,169	249,172	265,341
2000	18,254	269,502	287,756
2001	18,895	253,652	272,547
2002	15,108	255,134	270,242
2003	12,101	234,796	246,897
2004	12,664	223,477	236,141
2005	17,833	235,758	253,591

NOTE: *Passengers in trains* includes both passengers and crew arriving by train and requiring U.S. Customs processing.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Border Crossing/Entry Data, available at <http://www.bts.gov/itt/>, as of June 2006.

TABLE B-11 Pedestrian Crossings into the United States from Mexico and Canada: 1995–2005

	Mexico	Canada	Total
1995	32,835,972	697,963	33,533,935
1996	34,109,364	607,987	34,717,351
1997	43,911,311	549,875	44,461,186
1998	44,461,554	598,469	45,060,023
1999	48,213,234	587,830	48,801,064
2000	47,089,642	585,191	47,674,833
2001	51,501,321	749,805	52,251,126
2002	50,278,281	1,081,679	51,359,960
2003	48,663,773	937,477	49,601,250
2004	48,084,235	826,017	48,910,252
2005	45,829,612	605,339	46,434,951

NOTE: *Pedestrian crossings* include persons arriving on foot or by certain conveyances (e.g., bicycles, mopeds, or wheel chairs) requiring U.S. Customs processing.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Border Crossing/Entry Data, available at <http://www.bts.gov/itt/>, as of June 2006.

FIGURE B-12 Travel Between the United States and Foreign Countries
Thousands of visits

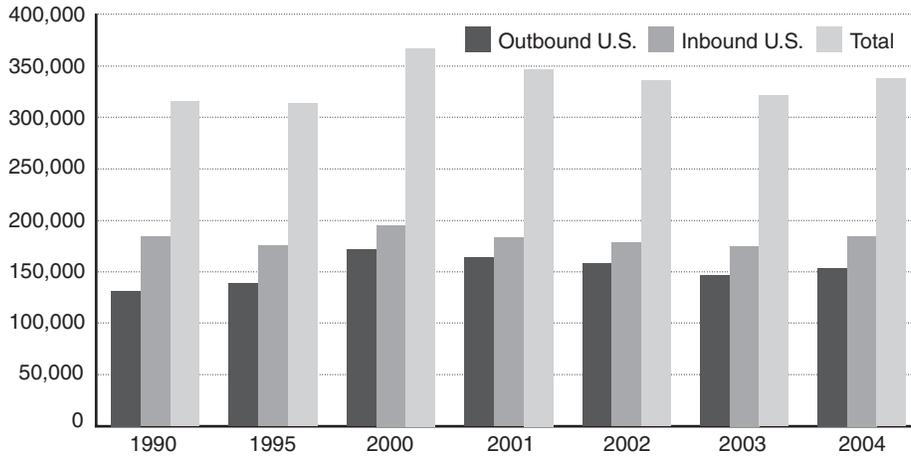


TABLE B-12 Travel Between the United States and Foreign Countries
Thousands of visits

	Outbound from the United States	Inbound to the United States	Total
1990	131,145	184,028	315,173
1995	138,670	175,518	314,188
2000	171,696	195,426	367,122
2001	163,846	183,070	346,916
2002	158,126	177,801	335,927
2003	146,217	174,674	320,891
2004	153,455	184,677	338,132

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *U.S. International Travel and Transportation Trends, 2006 Update*, Table 1.1 (Washington, DC: 2006) and *U.S. International Travel and Transportation Trends*, Table 1 (Washington, DC: 2002).

Other Elements of the Intermodal Transportation Database

Government transportation revenues consist of money collected by governments from transportation user charges and taxes to finance transportation programs. The following types of receipts are excluded: 1) revenues collected from users of the transportation system that are directed to the general fund and used for nontransportation purposes, 2) nontransportation general fund revenues that are used to finance transportation programs, and 3) proceeds from borrowing.

TABLE C-1 Federal, State, and Local Government Transportation Revenues: Fiscal Years 1993–2003

	Federal	State	Local	Total
Chained 2000 dollars (billions)				
1993	32.7	49.7	19.7	102.1
1994	31.5	50.1	20.6	102.2
1995	33.8	51.1	21.2	106.1
1996	33.7	51.2	22.0	106.9
1997	33.7	52.2	23.4	109.3
1998	41.3	53.8	24.0	119.1
1999	53.7	53.9	24.4	132.0
2000	46.8	54.1	24.9	125.9
2001	41.9	54.3	26.0	122.2
2002	41.3	54.5	U	U
2003	41.6	U	U	U
	Federal	State	Local	Total
Current dollars (billions)				
1993	27.4	41.4	16.4	85.2
1994	27.2	42.9	17.6	87.6
1995	30.2	44.8	18.6	93.7
1996	30.7	46.0	19.7	96.4
1997	31.4	47.7	21.3	100.5
1998	38.9	50.0	22.3	111.2
1999	52.0	51.6	23.3	126.9
2000	46.8	54.1	24.9	125.9
2001	42.7	55.8	26.7	125.2
2002	43.5	57.5	U	U
2003	44.8	U	U	U

KEY: U = Data are unavailable.

NOTE: Data may not add to total because of independent rounding. To eliminate the effects of inflation over time, the Bureau of Transportation Statistics converted current dollars to chained 2000 dollars.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Government Transportation Financial Statistics 2003*, available at <http://www.bts.gov/>, as of December 2006.

Federal Government transportation revenues consist of money collected by governments from transportation user charges and taxes to finance transportation programs. The following types of receipts are excluded: 1) revenues collected from users of the transportation system that are directed to the general fund and used for nontransportation purposes, 2) nontransportation general fund revenues that are used to finance transportation programs, and 3) proceeds from borrowing.

TABLE C-2 Federal Government Transportation Revenues by Mode: Fiscal Year 2003

	Chained 2000 dollars (billions)	Percentage of total
Highway	26.9	64.62
Air	9.4	22.51
Transit	4.4	10.62
Water	0.9	2.11
Pipeline	0.1	0.13
General support	0.0	0.02
Total	41.6	100.0

NOTES: Data may not add to total and percentages may not add to 100 because of independent rounding. To eliminate the effects of inflation over time, the Bureau of Transportation Statistics converted current dollars to chained 2000 dollars.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Government Transportation Financial Statistics 2003*, available at <http://www.bts.gov/>, as of December 2006.

Federal transportation expenditures consist of outlays of the federal government including not only direct spending but also grants made to state and local governments. State and local expenditures are from all fund sources except federal grants received.

TABLE C-3 Federal, State, and Local Government Transportation Expenditures: Fiscal Years 1993–2003

	Federal	State and local	Total
Chained 2000 dollars (billions)			
1993	44.6	95.1	139.7
1994	46.0	100.9	146.9
1995	45.7	102.2	147.9
1996	44.8	103.2	148.0
1997	44.9	105.7	150.5
1998	43.8	112.3	156.1
1999	45.2	116.0	161.1
2000	49.4	117.9	167.4
2001	53.1	123.1	176.2
2002	57.7	U	U
2003	U	U	U
	Federal	State and local	Total
Current dollars (billions)			
1993	37.3	79.2	116.5
1994	39.7	86.2	125.9
1995	40.8	89.7	130.5
1996	40.8	92.6	133.4
1997	41.8	96.6	138.4
1998	41.3	104.3	145.7
1999	43.8	111.0	154.7
2000	49.4	117.9	167.4
2001	56.5	126.6	183.1
2002	63.0	U	U
2003	U	U	U

KEY: U = Data are unavailable.

NOTES: Data may not add to total because of independent rounding. To eliminate the effects of inflation over time, the Bureau of Transportation Statistics converted current dollars to chained 2000 dollars. To avoid double counting, state and local transportation expenditures include their outlays from all sources of funds except federal grants received. State and local data are reported together because disaggregated federal grants data are not available.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Government Transportation Financial Statistics 2003*, available at <http://www.bts.gov/>, as of December 2006.

Federal transportation expenditures consist of outlays of the federal government including not only direct spending but also grants made to state and local governments.

TABLE C-4 Federal Government Transportation Expenditures by Mode: Fiscal Year 2002

	Chained 2000 dollars (billions)	Percentage of total
Highway	31.6	54.7
Transit	7.3	12.7
Rail	1.2	2.1
Air	12.4	21.4
Water	5.0	8.6
Pipeline	0.1	0.1
General support	0.2	0.4
Total	57.7	100.0

NOTES: Data may not add to total and percentages may not add to 100 because of independent rounding. To eliminate the effects of inflation over time, the Bureau of Transportation Statistics converted current dollars to chained 2000 dollars.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Government Transportation Financial Statistics 2003*, available at <http://www.bts.gov/>, as of December 2006.

Government investment in transportation infrastructure consists of the purchase or construction value of transportation facilities and structures. Investment in rolling stock covers government outlays for motor vehicles only, because data for other rolling stock (e.g., aircraft, vessels, and boats) are not available.

TABLE C-5 Gross Government Investments in Transportation Infrastructure and Rolling Stock: 1993–2003

	Infrastructure	Rolling stock	Total
Chained 2000 dollars (billions)			
1993	63.4	6.8	70.2
1994	66.0	7.0	73.0
1995	63.4	7.2	70.6
1996	64.0	7.0	71.1
1997	65.4	7.5	72.9
1998	66.3	8.2	74.5
1999	70.8	8.6	79.4
2000	76.1	8.8	84.9
2001	79.9	8.7	88.6
2002	80.3	7.5	87.8
2003	79.2	7.2	86.4
Current dollars (billions)			
1993	48.6	6.1	54.7
1994	51.8	6.5	58.3
1995	52.3	6.8	59.2
1996	55.1	6.7	61.8
1997	58.6	7.2	65.8
1998	60.8	7.9	68.8
1999	67.1	8.5	75.6
2000	75.5	8.8	84.4
2001	81.7	9.4	91.1
2002	85.2	7.5	92.7
2003	85.7	7.3	93.0

NOTES: Investment data here are in terms of calendar years unlike the other data in this section which are in terms of fiscal years. Federal, state, and local data are combined. Data include all modes except pipeline; state and local rail infrastructure investment data were only available from 1993–2000 when this report was prepared. These transportation investment data are not comparable to those in the earlier editions of this report because of changes in methodology and data sources. Data may not add to total because of independent rounding.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, "Transportation Investment," forthcoming.

Government investment in transportation infrastructure consists of the purchase or construction value of transportation facilities and structures.

TABLE C-6 Gross Government Investment in Transportation Infrastructure by Level of Government: 1993–2003

	Federal (direct)	State and local	Total
Chained 2000 dollars (billions)			
1993	4.4	59.0	63.4
1994	4.7	61.3	66.0
1995	4.7	58.7	63.4
1996	4.5	59.5	64.0
1997	4.5	60.9	65.4
1998	4.3	62.0	66.3
1999	3.9	66.8	70.8
2000	4.3	71.8	76.1
2001	4.4	75.5	79.9
2002	4.7	75.6	80.3
2003	4.4	74.8	79.2

	Federal (direct)	State and local	Total
Current dollars (billions)			
1993	3.5	45.2	48.7
1994	3.9	48.1	52.0
1995	4.0	48.5	52.5
1996	4.0	51.2	55.2
1997	4.0	54.7	58.7
1998	4.0	57.1	61.1
1999	3.8	63.6	67.4
2000	4.3	71.8	76.1
2001	4.6	77.7	82.2
2002	5.0	80.3	85.2
2003	4.8	80.9	85.7

NOTES: Investment data here are in terms of calendar years unlike the other data this section, which are in terms of fiscal years. Data include all modes except pipeline. These transportation investment data are not comparable to those in earlier editions of this report because of changes in methodology and data sources. Data may not add to total because of independent rounding.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, "Transportation Investment," forthcoming.

Government investment in transportation infrastructure consists of the purchase or construction value of transportation facilities and structures.

TABLE C-7 Gross Government Investment in Transportation Infrastructure by Mode: 1993–2003

	Highway	Air	Water	Transit	Railroad	Total
Chained 2000 dollars (billions)						
1993	46.4	8.8	1.6	5.7	0.7	63.2
1994	49.0	7.7	1.6	6.6	1.0	65.8
1995	46.8	6.8	1.8	6.7	1.1	63.2
1996	47.0	7.3	1.9	6.7	1.1	63.9
1997	49.4	7.5	1.8	5.4	1.1	65.2
1998	50.5	7.9	1.9	4.6	1.2	66.1
1999	53.5	8.3	2.0	5.2	1.5	70.6
2000	55.0	9.2	3.9	5.5	2.2	75.9
2001	58.6	9.9	3.3	6.1	1.7	79.7
2002	59.0	10.0	3.2	6.7	1.2	80.0
2003	59.1	10.1	2.3	6.5	1.0	79.0
	Highway	Air	Water	Transit	Railroad	Total
Current dollars (billions)						
1993	35.4	6.9	1.3	4.5	0.6	48.6
1994	38.4	6.2	1.3	5.2	0.8	51.8
1995	38.7	5.7	1.5	5.5	0.9	52.3
1996	40.5	6.3	1.6	5.7	0.9	55.1
1997	44.5	6.7	1.6	4.8	1.0	58.6
1998	46.4	7.3	1.8	4.3	1.1	60.8
1999	50.9	7.9	2.0	5.0	1.4	67.2
2000	55.0	9.2	3.9	5.5	2.2	75.9
2001	60.7	10.1	3.4	6.2	1.7	82.0
2002	62.7	10.5	3.4	7.1	1.3	85.0
2003	63.9	10.9	2.5	7.1	1.0	85.5

NOTES: Investment data here are in terms of calendar years unlike the other data in this section, which are in terms of fiscal years. Federal, state, and local data are combined. Data include all modes except pipeline. Highway does not include investment in public parking lots. These transportation investment data are not comparable to those in the earlier editions of this report because of changes in methodology and data sources. Data may not add to total because of independent rounding.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, "Transportation Investment," forthcoming.

Net federal subsidy is estimated as federal outlays minus federal receipts from transportation taxes and user fees.

TABLE C-8 Net Federal Subsidies to Passenger Transportation by Mode: Fiscal Years 1993-2003

	Highway	Autos, pickups, and vans	School buses	Transit buses	Intercity buses	Air	Commercial aviation	General aviation	Transit	Railroad	Total, all modes
Chained 2000 dollars (millions)											
1993	-5,248	-5,390	85	58	-2	4,338	3,065	1,274	4,200	872	4,162
1994	-7,592	-7,740	92	62	-6	4,143	2,993	1,150	4,364	858	1,773
1995	-9,391	-9,530	89	60	-10	3,893	2,774	1,119	5,007	1,049	558
1996	-9,645	-9,784	89	60	-11	6,192	4,944	1,248	4,796	994	2,338
1997	-8,441	-8,584	91	61	-8	4,463	3,373	1,090	4,918	1,099	2,039
1998	-11,693	-11,822	87	59	-16	1,120	-19	1,139	4,564	2,160	-3,849
1999	-10,410	-10,558	96	65	-12	-1,083	-2,073	991	4,402	1,434	-5,657
2000	-8,909	-9,086	109	74	-7	-446	-1,433	987	5,334	629	-3,392
2001	-5,297	-5,494	116	78	2	2,898	1,472	1,427	6,917	591	5,108
2002	-4,238	-4,452	125	84	5	4,026	2,831	1,194	7,314	1,093	8,195
2003	U	U	U	U	U	U	U	U	U	976	U
	Highway	Autos, pickups, and vans	School buses	Transit buses	Intercity buses	Air	Commercial aviation	General aviation	Transit	Railroad	Total, all modes
Current dollars (millions)											
1993	-4,394	-4,513	72	48	-1	3,633	2,566	1,067	3,517	730	3,485
1994	-6,558	-6,686	79	54	-5	3,578	2,585	993	3,770	741	1,531
1995	-8,391	-8,515	79	54	-9	3,478	2,479	999	4,474	938	499
1996	-8,798	-8,925	82	55	-10	5,648	4,510	1,139	4,375	907	2,132
1997	-7,866	-8,000	84	57	-8	4,159	3,143	1,016	4,583	1,024	1,900
1998	-11,022	-11,144	82	55	-15	1,056	-17	1,074	4,302	2,036	-3,628
1999	-10,085	-10,229	93	63	-12	-1,049	-2,009	960	4,265	1,389	-5,480
2000	-8,909	-9,086	109	74	-7	-446	-1,433	987	5,334	629	-3,392
2001	-5,398	-5,598	118	80	2	2,953	1,500	1,454	7,048	602	5,205
2002	-4,459	-4,684	131	89	6	4,235	2,979	1,257	7,695	1,150	8,621
2003	U	U	U	U	U	U	U	U	4,922	1,051	U

KEY: U = data are unavailable.

NOTES: Data may not add to total because of independent rounding. Actual outlays and receipts are used in the calculation. Negative numbers show user charge payments to the federal government in excess of cost responsibility. The Taxpayer Relief Act of 1997 allowed motor fuel distributors to delay until Oct. 5, 1998, the payment of fuel taxes that otherwise would be due in August and September of 1998. This provision effectively shifted about \$6 billion in Highway Trust Fund receipts from 1998 to 1999. The Bureau of Transportation Statistics included these funds in fiscal year 1998, when they were actually paid by highway users.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Federal Subsidies to Passenger Transportation, available at <http://www.bts.gov/>, as of December 2006.

Net federal subsidy is estimated as federal outlays minus federal receipts from transportation taxes and user fees.

TABLE C-9 Net Federal Subsidies per Thousand Passenger-Miles by Mode: Fiscal Years 1993-2003

	Highway	Autos, pickups, and vans	Buses	Air	Commercial aviation	General aviation	Transit	Railroad	Total, all modes
Chained 2000 dollars per thousand passenger-miles									
1993	-1.5	-1.5	3.6	11.7	8.5	128.7	106.6	140.6	1.0
1994	-2.1	-2.2	3.7	10.4	7.7	117.4	110.2	145.0	0.4
1995	-2.5	-2.7	3.5	9.4	6.9	103.6	125.8	189.2	0.1
1996	-2.5	-2.7	3.4	13.9	11.4	104.0	115.9	196.9	0.5
1997	-2.2	-2.3	3.4	9.6	7.5	87.2	116.2	212.7	0.5
1998	-2.9	-3.1	2.9	2.4	-0.0	86.9	103.4	406.6	-0.9
1999	-2.5	-2.7	3.2	-2.2	-4.2	70.3	96.0	268.6	-1.2
2000	-2.1	-2.3	3.7	-0.8	-2.8	64.9	111.9	113.8	-0.7
2001	-1.2	-1.3	4.0	5.8	3.0	89.7	141.0	105.9	1.0
2002	-1.0	-1.0	4.4	U	6.7	U	151.4	199.3	1.8
2003	-1.1	-1.2	4.2	U	2.7	U	95.3	171.3	0.7
Current dollars per thousand passenger-miles									
1993	-1.2	-2.0	3.0	9.8	7.1	107.7	89.3	117.7	0.9
1994	-1.8	-3.0	3.2	9.0	6.7	101.4	95.2	125.2	0.4
1995	-2.3	-3.7	3.1	8.4	6.1	92.5	112.4	169.1	0.1
1996	-2.3	-3.8	3.1	12.6	10.4	94.9	105.7	179.6	0.5
1997	-2.0	-3.3	3.2	9.0	7.0	81.3	108.2	198.2	0.4
1998	-2.8	-4.5	2.8	2.2	-0.0	81.9	97.5	383.3	-0.8
1999	-2.5	-4.1	3.1	-2.1	-4.1	68.1	93.0	260.2	-1.2
2000	-2.1	-3.6	3.7	-0.8	-2.8	64.9	111.9	113.8	-0.7
2001	-1.2	-2.2	4.1	5.9	3.1	91.4	143.6	107.9	1.1
2002	-1.0	-1.8	4.7	U	7.0	U	159.2	209.7	1.9
2003	-1.2	-2.1	4.6	U	2.9	U	102.6	184.4	0.7

KEY: U = data are unavailable.

NOTES: Data may not add to total because of independent rounding. Actual outlays and receipts are used in the calculation. Negative numbers show user charge payments to the federal government in excess of cost responsibility. The Taxpayer Relief Act of 1997 allowed motor fuel distributors to delay until Oct. 5, 1998, the payment of fuel taxes that otherwise would be due in August and September of 1998. This provision effectively shifted about \$6 billion in Highway Trust Fund receipts from 1998 to 1999. The Bureau of Transportation Statistics included these funds in fiscal year 1998, when they were actually paid by highway users. There is some double counting of bus passenger-miles in the highway and transit modes. However, no adjustments were made since data are not available to reliably estimate the magnitude of the double counting.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Federal Subsidies to Passenger Transportation, available at <http://www.bts.gov/>, as of December 2006.

The Transportation Services Index (TSI) is a monthly measure of the volume of services performed by the for-hire transportation sector. The TSI tells us how the output of transportation services has increased or decreased from month to month.

FIGURE C-10 Transportation Services Index: 1990 - 2006
 Index: Monthly average of 2000 = 100.0; seasonally adjusted

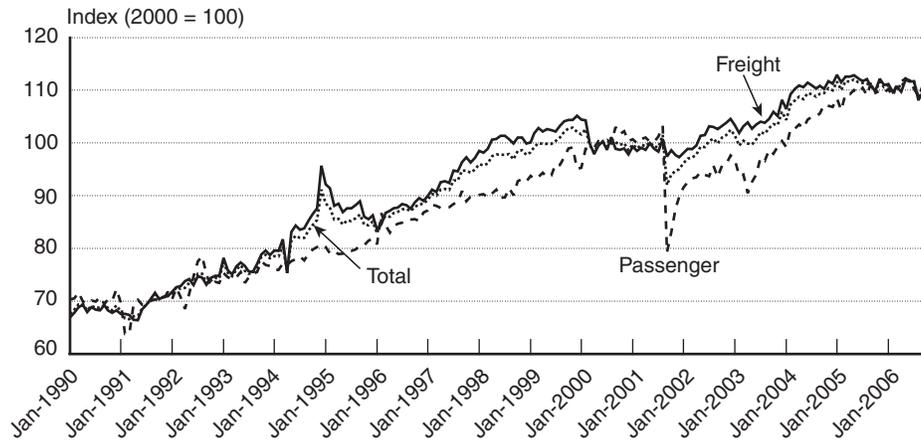


TABLE C-10 Transportation Services Index (TSI): October 2005–October 2006
 Index: 2000=100

	TSI total	TSI freight	TSI passenger
October-05	109.79	109.93	109.44
November-05	111.51	112.12	109.85
December-05	110.51	110.90	109.47
January-06	110.89	111.12	110.17
February-06	109.43	109.66	108.70
March-06	110.89	110.60	111.02
April-06	110.52	109.62	111.60
May-06	112.14	111.90	112.15
June-06	111.79	111.60	111.72
July-06	111.46	111.68	110.18
August-06	108.71	108.07	108.82
September-06	110.32	109.50	110.70
October-06	110.30	109.11	111.31

NOTE: August–October 2006 data are preliminary. See source for balance of data.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Transportation Services Index*, available at <http://www.bts.gov/>, as of December 2006.

Travel Times and Congestion Measures

The Travel Time Index (TTI) is the ratio of peak period travel time to free-flow travel time. It expresses the average amount of extra time it takes to travel in the peak period relative to free-flow travel.

TABLE D-1 Travel Time Index by Metro Area: 1993 and 2003

Urban areas	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Akron, OH	1.06	1.07	1.06	1.09	1.11	1.11	1.11	1.10	1.10	1.09	1.09
Albany-Schenectady, NY	1.04	1.04	1.04	1.05	1.05	1.05	1.06	1.06	1.06	1.07	1.08
Albuquerque, NM	1.14	1.18	1.21	1.23	1.24	1.26	1.24	1.21	1.20	1.17	1.17
Allentown-Bethlehem, PA-NJ	1.12	1.13	1.13	1.15	1.15	1.15	1.14	1.15	1.15	1.15	1.14
Anchorage, AK	1.03	1.04	1.03	1.03	1.03	1.04	1.04	1.04	1.05	1.05	1.05
Atlanta, GA	1.18	1.24	1.26	1.29	1.31	1.34	1.32	1.35	1.40	1.42	1.46
Austin, TX	1.14	1.17	1.20	1.23	1.26	1.24	1.26	1.26	1.30	1.31	1.33
Bakersfield, CA	1.04	1.04	1.04	1.05	1.05	1.06	1.05	1.06	1.06	1.06	1.07
Baltimore, MD	1.20	1.22	1.24	1.24	1.26	1.25	1.26	1.27	1.30	1.35	1.37
Beaumont, TX	1.04	1.03	1.04	1.04	1.04	1.05	1.06	1.05	1.06	1.07	1.07
Birmingham, AL	1.08	1.10	1.11	1.12	1.13	1.15	1.15	1.15	1.15	1.16	1.17
Boston, MA-NH-RI	1.26	1.27	1.25	1.26	1.29	1.30	1.29	1.30	1.30	1.35	1.34
Boulder, CO	1.05	1.05	1.06	1.06	1.07	1.07	1.08	1.09	1.08	1.09	1.08
Bridgeport-Stamford, CT-NY	1.15	1.17	1.19	1.18	1.21	1.24	1.28	1.27	1.27	1.30	1.29
Brownsville, TX	1.04	1.05	1.05	1.05	1.06	1.07	1.07	1.08	1.08	1.07	1.06
Buffalo, NY	1.04	1.04	1.04	1.04	1.04	1.05	1.07	1.08	1.08	1.08	1.10
Cape Coral, FL	1.11	1.12	1.12	1.13	1.14	1.14	1.14	1.14	1.14	1.17	1.18
Charleston-North Charleston, SC	1.15	1.14	1.14	1.13	1.15	1.17	1.17	1.18	1.17	1.18	1.20
Charlotte, NC-SC	1.17	1.16	1.17	1.19	1.23	1.23	1.24	1.26	1.26	1.31	1.31
Chicago, IL-IN	1.34	1.33	1.38	1.44	1.43	1.47	1.47	1.44	1.47	1.54	1.57
Cincinnati, OH-KY-IN	1.15	1.18	1.18	1.20	1.22	1.22	1.21	1.23	1.22	1.22	1.22
Cleveland, OH	1.08	1.10	1.13	1.15	1.17	1.15	1.15	1.13	1.12	1.10	1.09
Colorado Springs, CO	1.07	1.08	1.10	1.11	1.13	1.16	1.18	1.21	1.22	1.21	1.19
Columbia, SC	1.04	1.04	1.04	1.04	1.04	1.04	1.05	1.05	1.05	1.05	1.06
Columbus, OH	1.14	1.17	1.18	1.20	1.21	1.21	1.22	1.19	1.18	1.19	1.19
Corpus Christi, TX	1.03	1.03	1.03	1.03	1.03	1.04	1.05	1.04	1.05	1.04	1.05
Dallas-Fort Worth-Arlington, TX	1.20	1.20	1.21	1.22	1.24	1.27	1.31	1.32	1.33	1.35	1.36
Dayton, OH	1.07	1.08	1.10	1.11	1.12	1.12	1.12	1.12	1.10	1.09	1.08
Denver-Aurora, CO	1.24	1.24	1.30	1.33	1.37	1.39	1.38	1.41	1.45	1.40	1.40
Detroit, MI	1.36	1.33	1.32	1.33	1.35	1.36	1.35	1.33	1.35	1.36	1.38

(continued on next page)

TABLE D-1 Travel Time Index by Metro Area: 1993 and 2003 (continued)

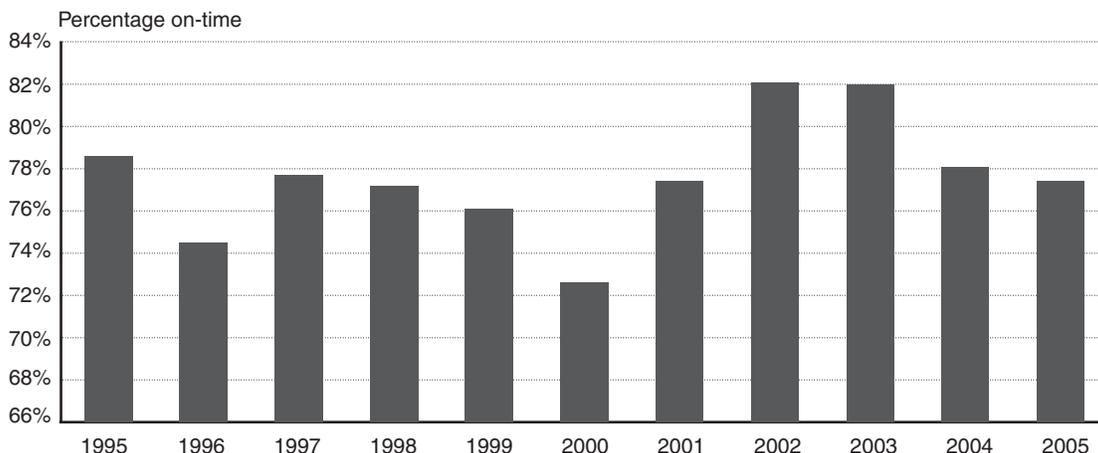
Urban areas	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
El Paso, TX-NM	1.07	1.09	1.08	1.07	1.09	1.10	1.14	1.16	1.17	1.17	1.17
Eugene, OR	1.05	1.05	1.05	1.06	1.06	1.07	1.09	1.12	1.11	1.10	1.11
Fresno, CA	1.12	1.11	1.13	1.13	1.16	1.18	1.20	1.19	1.16	1.15	1.14
Grand Rapids, MI	1.11	1.11	1.10	1.11	1.12	1.16	1.15	1.14	1.13	1.13	1.14
Hartford, CT	1.07	1.07	1.08	1.08	1.10	1.11	1.11	1.11	1.12	1.12	1.11
Honolulu, HI	1.21	1.22	1.23	1.23	1.20	1.21	1.21	1.19	1.19	1.18	1.19
Houston, TX	1.24	1.27	1.28	1.32	1.35	1.34	1.37	1.36	1.38	1.41	1.42
Indianapolis, IN	1.16	1.20	1.22	1.25	1.26	1.22	1.23	1.24	1.26	1.24	1.24
Jacksonville, FL	1.14	1.14	1.18	1.17	1.16	1.14	1.14	1.15	1.15	1.16	1.18
Kansas City, MO-KS	1.06	1.07	1.06	1.08	1.09	1.09	1.11	1.10	1.10	1.10	1.11
Laredo, TX	1.04	1.04	1.05	1.06	1.07	1.07	1.07	1.07	1.08	1.07	1.08
Las Vegas, NV	1.24	1.28	1.27	1.30	1.33	1.33	1.34	1.34	1.35	1.36	1.39
Little Rock, AK	1.03	1.03	1.03	1.04	1.04	1.05	1.06	1.05	1.07	1.06	1.06
Los Angeles-Long Beach-Santa Ana, CA	1.73	1.64	1.72	1.78	1.77	1.83	1.80	1.76	1.78	1.77	1.75
Louisville, KY-IN	1.15	1.16	1.16	1.19	1.21	1.22	1.24	1.23	1.22	1.24	1.24
Memphis, TN-MS-AR	1.11	1.14	1.17	1.18	1.19	1.19	1.19	1.19	1.20	1.22	1.22
Miami, FL	1.26	1.26	1.28	1.29	1.30	1.31	1.34	1.35	1.37	1.40	1.42
Milwaukee, WI	1.17	1.16	1.19	1.20	1.20	1.22	1.25	1.24	1.23	1.23	1.21
Minneapolis-St. Paul, MN	1.16	1.20	1.22	1.23	1.30	1.32	1.35	1.32	1.34	1.34	1.34
Nashville-Davidson, TN	1.09	1.12	1.13	1.14	1.16	1.15	1.17	1.18	1.17	1.19	1.18
New Haven, CT	1.08	1.09	1.09	1.07	1.09	1.12	1.13	1.14	1.15	1.14	1.13
New Orleans, LA	1.16	1.20	1.20	1.20	1.19	1.19	1.20	1.18	1.17	1.18	1.19
New York-Newark, NY-NJ-CT	1.28	1.31	1.33	1.34	1.36	1.36	1.40	1.38	1.38	1.40	1.39
Oklahoma City, OK	1.04	1.04	1.06	1.07	1.09	1.09	1.11	1.09	1.10	1.11	1.10
Omaha, NE-IA	1.10	1.12	1.12	1.14	1.13	1.14	1.15	1.15	1.16	1.17	1.18
Orlando, FL	1.21	1.20	1.21	1.22	1.24	1.27	1.27	1.28	1.30	1.31	1.30
Oxnard-Ventura, CA	1.10	1.14	1.15	1.16	1.14	1.15	1.19	1.19	1.21	1.21	1.23
Pensacola, FL-AL	1.11	1.10	1.11	1.10	1.12	1.12	1.12	1.14	1.12	1.12	1.12
Philadelphia, PA-NJ-DE-MD	1.20	1.21	1.24	1.27	1.27	1.33	1.33	1.31	1.35	1.35	1.32
Phoenix, AZ	1.27	1.28	1.24	1.30	1.33	1.31	1.38	1.38	1.40	1.35	1.35
Pittsburgh, PA	1.09	1.09	1.10	1.10	1.10	1.11	1.12	1.10	1.10	1.10	1.10
Portland, OR-WA	1.24	1.25	1.28	1.31	1.35	1.34	1.37	1.37	1.39	1.38	1.37
Providence, RI-MA	1.11	1.11	1.12	1.14	1.12	1.13	1.14	1.15	1.15	1.18	1.19
Raleigh-Durham, NC	1.12	1.13	1.14	1.13	1.15	1.15	1.14	1.16	1.19	1.18	1.19

TABLE D-1 Travel Time Index by Metro Area: 1993 and 2003 (continued)

Urban areas	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Richmond, VA	1.07	1.08	1.11	1.11	1.09	1.09	1.09	1.07	1.07	1.08	1.09
Riverside-San Bernardino, CA	1.27	1.23	1.26	1.28	1.27	1.31	1.33	1.33	1.32	1.34	1.37
Rochester, NY	1.04	1.04	1.05	1.05	1.06	1.05	1.06	1.06	1.06	1.06	1.07
Sacramento, CA	1.19	1.22	1.21	1.24	1.23	1.25	1.27	1.29	1.32	1.34	1.37
Salem, OR	1.06	1.07	1.06	1.07	1.07	1.08	1.08	1.08	1.09	1.11	1.11
Salt Lake City, UT	1.13	1.15	1.17	1.17	1.15	1.16	1.17	1.18	1.23	1.26	1.28
San Antonio, TX	1.07	1.08	1.12	1.12	1.13	1.16	1.22	1.24	1.22	1.23	1.22
San Diego, CA	1.22	1.22	1.22	1.23	1.25	1.26	1.32	1.32	1.32	1.40	1.41
San Francisco-Oakland, CA	1.44	1.40	1.45	1.45	1.42	1.47	1.49	1.54	1.54	1.55	1.54
San Jose, CA	1.34	1.33	1.34	1.33	1.30	1.34	1.39	1.42	1.43	1.39	1.37
Sarasota-Bradenton, FL	1.18	1.19	1.16	1.19	1.19	1.20	1.24	1.22	1.22	1.25	1.25
Seattle, WA	1.35	1.34	1.36	1.36	1.40	1.39	1.40	1.35	1.35	1.36	1.38
Spokane, WA	1.08	1.08	1.06	1.06	1.07	1.08	1.08	1.08	1.07	1.07	1.08
Springfield, MA-CT	1.06	1.05	1.06	1.06	1.06	1.06	1.07	1.07	1.06	1.07	1.06
St. Louis, MO-IL	1.18	1.19	1.21	1.21	1.24	1.24	1.25	1.25	1.23	1.24	1.22
Tampa-St. Petersburg, FL	1.30	1.32	1.32	1.31	1.29	1.28	1.29	1.27	1.31	1.31	1.33
Toledo, OH-MI	1.04	1.05	1.06	1.06	1.07	1.08	1.09	1.10	1.11	1.11	1.10
Tucson, AZ	1.14	1.15	1.15	1.15	1.19	1.20	1.20	1.19	1.22	1.28	1.31
Tulsa, OK	1.05	1.05	1.06	1.07	1.08	1.08	1.09	1.10	1.10	1.10	1.10
Virginia Beach, VA	1.13	1.15	1.16	1.18	1.18	1.19	1.19	1.16	1.18	1.20	1.21
Washington, DC-VA-MD	1.38	1.37	1.40	1.44	1.43	1.46	1.47	1.44	1.46	1.50	1.51
85-Area Average	1.28	1.27	1.29	1.31	1.32	1.34	1.35	1.34	1.35	1.37	1.37
Very Large Area Average	1.38	1.37	1.40	1.43	1.43	1.46	1.46	1.45	1.47	1.49	1.48
Large Area Average	1.19	1.20	1.21	1.23	1.24	1.25	1.26	1.26	1.27	1.28	1.28
Medium Area Average	1.11	1.12	1.13	1.14	1.15	1.15	1.16	1.16	1.17	1.18	1.18
Small Area Average	1.06	1.06	1.07	1.07	1.08	1.08	1.09	1.10	1.10	1.10	1.10

NOTE: To determine the increased travel time, a TTI of 1.3, for example, indicates a 20-minute free-flow trip will take 26 minutes during the peak travel time periods, a 6-minute (30 percent) travel time penalty.

SOURCE: Texas A&M University, Texas Transportation Institute, 2005 *Urban Mobility Report* (College Station, TX: 2005), also available at <http://tti.tamu.edu/>, as of July 2006.

FIGURE D-2 U.S. Air Carrier On-Time Performance: 1995–2005

TABLE D-2 U.S. Air Carrier On-Time Performance: 1995–2005

Thousands of flights

	Late departures	Late arrivals	Cancellations	Diversions	On-time flight operations (%)	Total operations
1995	828	1,039	92	10	79%	5,327
1996	974	1,220	129	14	75%	5,352
1997	847	1,084	98	12	78%	5,412
1998	870	1,070	145	13	77%	5,385
1999	937	1,153	154	14	76%	5,528
2000	1,132	1,356	187	14	73%	5,683
2001	954	1,104	231	13	77%	5,968
2002	717	868	65	8	82%	5,271
2003	834	1,058	101	11	82%	6,489
2004	1,188	1,421	128	14	78%	7,129
2005	1,279	1,466	134	14	77%	7,141
2006	1,424	1,615	121	16	75%	7,141

NOTES: *Late departures* are flights departing 15 minutes or more after the scheduled departure time. *Late arrivals* are flights arriving 15 minutes or more after the scheduled arrival time. Late departures and arrivals are strongly seasonal and are affected by weather and heavy demand in winter and summer months. *Cancellations* are flights that were not operated, but were listed in a carrier's computer reservation system within seven calendar days of the scheduled departure. *Diversions* are flights that left from the scheduled departure airport, but flew to a destination point other than the scheduled destination point.

In 2006 and 2005, 20 air carriers reported on-time performance data, including all major U.S. carriers (carriers with at least one percent of total domestic scheduled-service passenger revenues) and other carriers that reported voluntarily. The number of carriers reporting in previous years is as follows: 2004 (19); 2003 (18); 2002 (10); 2001 (12); 2000 (11); 1999 (10); 1998 (10); 1997 (10); 1996 (10); and 1995 (10).

SOURCES: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Summary of Airline On-Time Performance Year-to-date through December 2006* (Washington, DC: 2007). U.S. Department of Transportation, Office of the Secretary, *Air Travel Consumer Report* (Washington, DC: Annual February issues), table 1a.

TABLE D-3 Scheduled and Actual Travel Time for the Top City Pairs: 1990 and 2004
Minutes

	Average scheduled minutes per Flight		Average actual minutes per flight	
	1990	2004	1990	2004
All city pairs	110.1	132.5	117.1	139.5
Top 10 city pairs	115.9	126.6	123.6	134.4
Non top 10 city pairs	109.8	132.8	116.7	139.8
Top 20 city pairs	117.5	127.3	125.3	135.4
Non top 20 city pairs	109.5	133.0	116.3	139.9
Top 50 city pairs	121.1	131.8	129.2	140.0
Non top 50 city pairs	108.5	132.6	115.3	139.4

NOTES: Any city pair that was in the top 50 for any year from 1990 to 2004 is included. Only carriers reporting Airline Service Quality Performance data are included. Based on a dataset that includes only airports that were in the top 50 for any year from 1990-2004. Only flights with similar characteristics operated in consecutive years for the same month are included. Aggregates will be affected by changes in distance for the underlying flights.

SOURCE: U.S. Department of Transportation (USDOT), Research and Innovative Technology Administration, Bureau of Transportation Statistics (BTS), calculations using the following: USDOT, BTS, Airline Service Quality Performance data, July 2006.

Line-haul speed is a shipper-related indicator of the performance of the railroad industry. The average speed is the over-the-road train speed and does not include terminal dwell time, time for local pickup and delivery, and the time shipments spend in storage yards.

TABLE D-4 Rail Freight Average Speeds, Revenue Ton-Miles, and Terminal Dwell Times

Quarter	Average line-haul speed (mph)	Revenue ton-miles (billions)	Average terminal dwell time (hours)
1999 Q3	23.0	364.0	U
1999 Q4	23.3	372.8	U
2000 Q1	24.2	358.6	U
2000 Q2	23.9	359.7	U
2000 Q3	23.8	376.0	U
2000 Q4	24.0	361.3	U
2001 Q1	24.4	370.4	U
2001 Q2	24.0	364.6	U
2001 Q3	24.3	367.7	U
2001 Q4	24.8	371.3	U
2002 Q1	25.4	352.0	U
2002 Q2	25.6	369.1	U
2002 Q3	24.9	361.2	U
2002 Q4	25.2	364.2	U
2003 Q1	24.7	368.4	U
2003 Q2	24.3	379.2	U
2003 Q3	23.7	387.6	U
2003 Q4	23.6	396.0	U
2004 Q1	23.2	395.6	U
2004 Q2	22.3	409.8	27.0
2004 Q3	22.5	417.3	26.4
2004 Q4	22.1	429.3	27.3
2005 Q1	21.7	416.7	27.4
2005 Q2	21.6	417.8	26.3
2005 Q3	21.7	421.0	25.9
2005 Q4	20.8	420.6	27.2

KEY: U = data are unavailable.

NOTES: The Bureau of Transportation Statistics calculated the average overall line-haul speed by taking a weighted average (using freight car-miles) of the individual railroad average speeds. Data cover Class I railroads only (see Glossary for definition). Average line-haul speed and terminal dwell time exclude the Canadian National Railway because they have stopped releasing those data. Average line-haul speed data for 2005 are preliminary.

SOURCES: **Average line-haul speed and terminal dwell time**—U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, calculations using data reported by Class I railroads to the Association of American Railroads for posting at <http://www.railroadpm.org/>, and Surface Transportation Board (STB), *Statistics of Class I Railroads in the United States*, table 8, available at <http://www.stb.dot.gov/>, as of August 2006. **Revenue ton-miles**—STB, *Quarterly Selected Earnings Report*, available at <http://www.stb.dot.gov/>, as of August 2006.

TABLE D-5 Amtrak Hours of Delay by Cause: 2000–2005

	Amtrak	Host railroad	Other	Total
2000	23,337	43,881	3,176	70,396
2001	27,822	52,273	3,741	83,837
2002	26,575	55,090	4,266	85,932
2003	25,711	57,346	5,355	88,413
2004	28,328	61,256	5,577	95,162
2005	25,549	64,097	5,613	95,259

NOTES: Data may not add to total because of independent rounding. Data not collected prior to 2000. *Amtrak* includes all delays when operating on Amtrak-owned tracks and delays for equipment or engine failure, passenger handling, holding for connections, train servicing, and mail/baggage handling when on tracks of a host railroad.

Host railroad includes all operating delays not attributable to Amtrak when operating on tracks of a host railroad, such as track- and signal-related delays, power failures, freight and commuter train interference, and routing delays. Also includes delays for track repairs/track conditions, freight train interference, and signal delays.

Other includes delays not attributable to Amtrak or host railroads, such as customs and immigrations, law enforcement action, weather, or waiting for scheduled departure time.

SOURCE: Amtrak, personal communication, November 2006.

TABLE D-6 Amtrak Trains Arriving On Time: 1995–2000 and 2001–2005
Percent

	System on-time performance	Short distance (<400 miles)	Long distance (400 miles)
1995	76	81	57
1996	71	76	49
1997	74	79	53
1998	79	81	59
1999	79	80	61
2000	77	82	52
2001	75	78	55
2002	76	81	46
2003	74	78	50
2004	71	75	41
2005	70	74	42

NOTES: *Short distance* includes all Amtrak Northeast Corridor and Empire Service (New York State) trains. Amtrak revised its methodology for collecting and calculating on-time performance data in 2001. This resulted in minor changes in short-distance, long-distance, and system on-time performance percentages starting in 2001 compared with previous years.

SOURCES: **1995–1999**—National Railroad Passenger Corp. (Amtrak), *Amtrak Annual Report* (Washington, DC: annual issues). **2000–2005**—Amtrak, personal communication, November 2006.

TABLE D-7 Average Daytime Wait Times for Commercial Vehicles at Selected U.S. Surface Border Gateways: 2003 and 2004
Minutes

	2003	2004
United States–Canada border		
Port Huron-Bluewater Bridge, MI	26.8	25.2
Blaine-Pacific Highway, WA	18.7	15.0
Detroit-Ambassador Bridge, MI	16.1	14.8
Buffalo/Niagara Falls-Peace Bridge, NY	10.0	12.5
Champlain, NY	3.7	11.6
Sumas, WA	11.0	7.6
Buffalo/Niagara Falls-Lewiston Bridge, NY	12.1	7.2
Sweetgrass, MT	4.8	6.8
Derby Line, VT	6.1	5.6
Pembina, ND	5.6	5.4
Houlton, ME	3.3	5.3
Sault Ste. Marie, MI	6.7	5.1
Highgate Springs, VT	4.5	4.6
Detroit-Windsor Tunnel, MI	3.6	4.0
Calais-Ferry Point, ME	14.7	3.9
Jackman, ME	1.3	1.3
Average	9.3	8.5
United States–Mexico border		
Laredo-World Trade Bridge, TX	17.2	20.5
Nogales-Mariposa, AZ	10.4	18.2
Otay Mesa, CA	15.9	15.5
El Paso-Ysleta, TX	8.3	11.0
Brownsville-Veterans International, TX	8.8	10.0
Hidalgo/Pharr, Pharr, TX	7.8	8.8
Calexico-East, CA	7.9	6.6
Tecate, CA	5.0	6.1
El Paso-Bridge of the Americas (BOTA), TX	6.1	5.9
Laredo-Colombia Solidarity, TX	4.9	3.7
Del Rio, TX	3.0	2.6
Rio Grande City, TX	3.1	2.5
Brownsville-Los Indios, TX	1.5	1.3
Santa Teresa, NM	1.4	1.1
Progreso, TX	0.7	0.8
Presidio, TX	1.6	0.5
Eagle Pass–Bridge I, TX	1.6	U
Average	6.2	7.3

KEY: U = data are unavailable.

NOTES: Wait times for commercial vehicles are recorded hourly. Daytime hours (between 8:00 a.m. and 6:00 p.m.) are generally the busiest portion of the day and are representative of typical delays encountered by the majority of vehicles. Wait times can, however, vary considerably by crossing, time of day, and day of the week, and the actual delays that occur on occasion may be substantially longer than the averages represented above.

SOURCE: U.S. Department of Homeland Security, U.S. Customs and Border Protection, personal communication, April 2005.

TABLE D-8 Average Daytime Wait Times for Passenger Vehicles at Selected U.S. Surface Border Gateways: 2003 and 2004
Minutes

	2003	2004
United States–Canada border		
Blaine-Peace Arch, WA	21.1	13.7
Buffalo/Niagara Falls-Lewiston Bridge, NY	7.8	10.0
Blaine-Pacific Highway, WA	11.5	9.1
Champlain, NY	4.1	7.5
Sumas, WA	6.4	7.0
Port Huron-Bluewater Bridge, MI	7.7	6.7
Buffalo/Niagara Falls-Rainbow Bridge, NY	3.6	6.2
Buffalo/Niagara Falls-Peace Bridge, NY	5.5	5.9
Sault Ste. Marie, MI	8.0	5.8
Sweetgrass, MT	8.1	4.9
Detroit-Windsor Tunnel, MI	6.8	4.9
Calais-Ferry Point, ME	14.9	3.9
Pembina, ND	2.9	3.9
Highgate Springs, VT	6.8	3.5
Detroit-Ambassador Bridge, MI	4.7	3.3
Jackman, ME	3.4	2.2
Derby Line, VT	3.4	1.3
Average	7.5	5.9
United States-Mexico border		
San Ysidro, CA	42.3	36.1
Nogales-Deconcini, AZ	27.0	33.0
Nogales-Mariposa, AZ	21.2	28.6
Calexico-West, CA	21.9	25.1
Otay Mesa, CA	27.8	24.1
El Paso-Bridge of the Americas (BOTA), TX	35.4	23.8
San Luis, AZ	23.9	21.3
Laredo-Bridge II, TX	16.6	19.4
Laredo-Bridge I, TX	12.8	18.4
Tecate, CA	17.2	17.5
Hidalgo/Pharr, Hidalgo, TX	21.6	17.2
El Paso-Ysleta, TX	17.1	16.8
El Paso-Paso Del Norte (PDN), TX	17.2	16.0
Calexico-East, CA	9.1	14.0
Douglas, AZ	10.8	13.7
Hidalgo/Pharr, Pharr, TX	12.6	12.3
Brownsville-Gateway, TX	12.8	11.0
Brownsville-B&M, TX	13.2	11.0
Del Rio, TX	11.1	10.9
Brownsville-Veterans International, TX	12.0	9.5
Eagle Pass-Bridge I, TX	7.7	7.7
Andrade, CA	3.9	7.1
Eagle Pass-Bridge II, TX	6.8	6.1
Progreso, TX	4.5	5.8
Brownsville-Los Indios, TX	6.0	4.7
Roma, TX	4.5	4.3
Rio Grande City, TX	3.9	3.9
Santa Teresa, NM	4.1	2.1
Presidio, TX	6.0	0.9
Average	14.5	14.6

NOTES: Wait times for private vehicles are recorded hourly. Daytime hours (between 8:00 a.m. and 6:00 p.m.) are generally the busiest portion of the day and are representative of typical delays encountered by the majority of vehicles. Wait times can, however, vary considerably by crossing, time of day, and day of the week, and the actual delays that occur on occasion may be substantially longer than the averages represented above.

SOURCE: U.S. Department of Homeland Security, U.S. Customs and Border Protection, personal communication, April 2005.

Vehicle Weights and Other Vehicle Characteristics

FIGURE E-1 Number of Trucks by Weight: 1992, 1997, and 2002

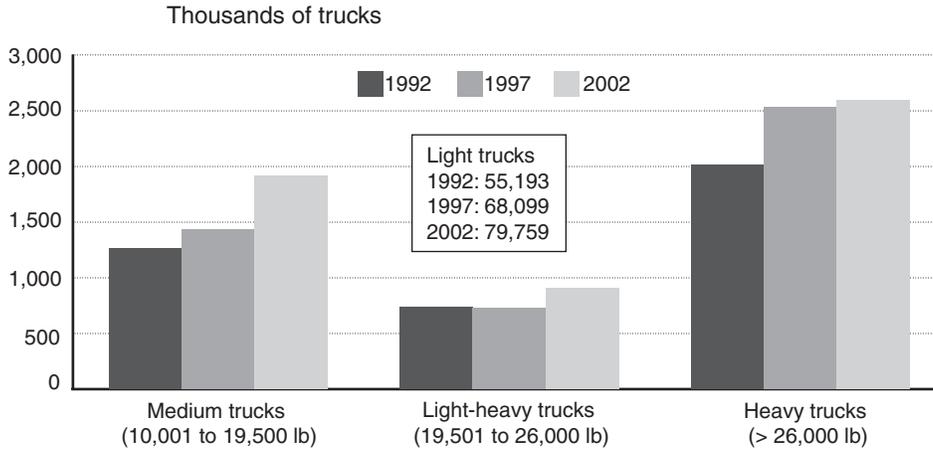


TABLE E-1 Number of Trucks by Weight: 1992, 1997, and 2002

Thousands of trucks

	Light trucks (< 10,001 lb)	Medium trucks (10,001 to 19,500 lb)	Light-heavy Trucks (19,501 to 26,000 lb)	Heavy trucks (> 26,000 lb)	Total
1992	55,193.2	1,259.0	732.0	2,016.5	59,200.8
1997	68,099.9	1,435.6	729.3	2,535.6	72,800.3
2002	79,759.6	1,914.1	910.3	2,590.9	85,174.8

KEY: lb = pound.

NOTES: Weight is the empty weight of the vehicle plus the average vehicle load. Data may not add to total because of independent rounding. Excludes vehicles owned by federal, state, or local governments; ambulances; buses; motor homes; farm tractors; unpowered trailer units; and trucks reported to have been sold, junked, or wrecked prior to July 1 of the year preceding the 1992 and 1997 surveys and January 1, 2002, for the 2002 survey. The definition of Light Trucks in this table differs from the definition in Table E-4.

SOURCE: 1992 and 1997—U.S. Census Bureau, *1997 Economic Census: Vehicle Inventory and Use Survey: United States*, EC97TV-US (Washington, DC: 1999). 2002—U.S. Census Bureau, *2002 Economic Census: Vehicle Inventory and Use Survey: United States*, EC02TV-US (Washington, DC: 2004).

TABLE E-2 Average Capacity of Vessels Calling at U.S. Ports by Type: 1998–2005
Deadweight tons (dwt) per call

	Combination	Tanker	Dry bulk	Container	Roll-on, roll-off vessels	Gas carriers	General cargo	All vessels
1998	82,895	68,670	41,740	36,243	19,898	29,954	21,409	45,289
1999	88,433	67,723	41,833	36,586	18,662	31,402	22,331	45,117
2000	89,462	67,551	41,694	37,784	18,456	31,397	22,857	45,646
2001	87,873	69,313	42,142	39,656	20,445	33,438	23,416	47,034
2002	84,459	69,412	42,876	42,158	20,376	32,099	23,496	47,625
2003	84,016	72,387	42,685	43,168	20,270	37,818	23,655	49,557
2004	84,699	70,690	42,972	43,610	20,190	39,145	24,542	49,125
2005	87,151	72,056	43,276	44,593	19,838	41,411	25,101	50,083

NOTES: Calls are by oceangoing vessels of 10,000 dwt or greater at U.S. ports, excluding Great Lakes ports. 1998 is the first year for which data are available. Beginning in 2002, chemical tanker data are no longer reported separately and are, instead, included in tanker data; historical data were adjusted for consistency. *Combination* includes ore/bulk/oil carriers, and bulk/oil carriers. *Gas carriers* includes liquefied natural gas carriers (LNG), liquefied petroleum gas (LPG) carriers, and LNG/LPG carriers. *General cargo* includes general cargo carriers, partial containerships, refrigerated ships, barge carriers, and livestock carriers. *Roll-on, roll-off* vessels are especially designed to carry wheeled container trailers or other wheeled cargo and use the roll-on, roll-off method for loading and unloading.

SOURCE: U.S. Department of Transportation, Maritime Administration, Office of Statistical and Economic Analysis, *Vessel Calls at U.S. Ports (annual releases)*, table S-1, available at http://www.marad.dot.gov/marad_statistics/, as of June 2006.

TABLE E-3 Average Loaded U.S. Railcar Weight: 1995–2005

	Tons per carload
1995	65.3
1996	66.6
1997	63.4
1998	64.1
1999	63.4
2000	62.6
2001	64.0
2002	63.3
2003	62.3
2004	61.3
2005	61.0

NOTE: Average railcar weight is total tons transported divided by total carloads transported.

SOURCE: Association of American *Railroads*, *Railroad Facts 2006* (Washington, DC: 2006), pp. 37.

TABLE E-4 Median Age of Automobiles and Trucks in Operation in the United States: 1995–2005
Years

	Cars	Light trucks	All trucks
1995	7.7	7.4	7.6
1996	7.9	7.5	7.7
1997	8.1	7.3	7.8
1998	8.3	7.1	7.6
1999	8.3	6.9	7.2
2000	8.3	6.7	6.9
2001	8.3	6.1	6.8
2002	8.4	6.6	6.8
2003	8.6	6.5	6.7
2004	8.9	6.4	6.6
2005	9.0	6.6	6.8

NOTE: *Light Trucks* are 14,000 lbs and under (gross vehicle weight classes 1-3). This definition of Light Trucks differs from the definition used in Table E-1.

SOURCE: The R.L. Polk Co., available at <http://www.polk.com/>, as of February 2006.

TABLE E-5 Average Age of Urban Transit Vehicles: 1994–2004
Years

	Heavy-rail passenger cars	Commuter- rail passenger coaches	Light-rail vehicles	Full-size transit buses	Vans	Ferryboats
1994	15.8	20.1	16.7	8.7	3.9	23.5
1995	19.3	21.4	16.8	8.6	3.1	23.4
1996	20.2	24.1	16.0	8.7	3.1	25.3
1997	21.1	21.6	15.9	8.5	3.0	25.4
1998	22.0	19.4	15.7	8.5	2.9	25.8
1999	22.5	17.5	15.7	8.4	3.1	25.1
2000	22.9	16.9	16.1	8.1	3.1	25.6
2001	21.7	18.1	16.4	7.8	3.3	24.7
2002	20.0	20.1	16.3	7.5	4.9	26.8
2003	19.0	20.5	15.6	7.3	3.4	27.1
2004	19.8	17.9	15.5	7.2	3.4	25.6

NOTES: *Full-size transit buses* have more than 35 seats. Data are for directly operated service vehicles only.

SOURCES: All data except full-size transit buses—U.S. Department of Transportation, Federal Transit Administration, *National Transit Database 2004* (Washington, DC: 2005). Full-size transit buses—U.S. Department of Transportation, Federal Transit Administration, *National Transit Summaries and Trends 2004* (Washington, DC: 2005).

TABLE E-6 Average Age of Amtrak Locomotive and Train Car Fleets: Fiscal Years 1995–2005

Years

	Locomotives	Passenger and other train cars
1995	13.9	21.8
1996	14.4	20.7
1997	12.0	19.8
1998	12.6	21.1
1999	12.8	22.2
2000	11.2	19.4
2001	13.9	18.5
2002	13.7	20.4
2003	14.8	21.4
2004	15.7	22.4
2005	16.4	23.3

SOURCES: 1995-2000—U.S. Department of Transportation (USDOT), Research and Innovative Technology Administration, Bureau of Transportation Statistics (BTS), *National Transportation Statistics 2003*, table 1-30, available at <http://www.bts.gov/>, as of March 2004. **2001**—USDOT, BTS, calculation based on data provided by Amtrak, personal communication, March 2004. **2002-2005**—USDOT, BTS, calculations based on data provided by Amtrak, personal communication, July 2006.

TABLE E-7 U.S. Flag Vessels by Type and Age: 2004
Number

Vessel types	Age group (years)					
	< 6	6-10	11-15	16-20	21-25	> 25
Dry cargo	126	112	95	132	130	390
Tanker	11	10	3	8	31	40
Towboat	367	272	166	157	1,083	3,262
Passenger	72	97	119	144	92	308
Offshore support/crewboats	279	198	109	64	580	512
Dry barge	4,556	4,840	3,057	1,169	6,240	7,152
Tank/liquid barge	676	453	296	35	639	1,970

NOTES: Data includes vessels available for operation. Age is based on the year vessels were built or rebuilt.
Passenger includes passenger excursion/sightseeing, combination passenger and dry-cargo vessels, and ferries.

SOURCE: U.S. Army Corps of Engineers, *Waterborne Transportation Lines of the United States, Volume 1, National Summaries* (New Orleans, LA: annual issues).

TABLE E-8 Average Age of U.S. Commercial Aircraft: 1993–2003
 Years, unless noted

	All commercial aircraft	Major airlines aircraft	Major airlines share of commercial aircraft (%)
1993	11.6	10.4	82.1
1994	12.2	10.8	79.9
1995	12.4	11.3	76.1
1996	13.2	12.3	72.5
1997	13.5	12.4	78.7
1998	13.6	12.3	77.8
1999	12.9	11.8	78.5
2000	12.8	11.8	78.8
2001	12.3	11.6	82.9
2002	11.7	11.7	77.8
2003	11.0	11.7	72.9

NOTES: Average aircraft age is based on the year that an aircraft was delivered to the original owner from the manufacturer and does not reflect the age of the engines or other parts that may have been replaced more recently. *Commercial aircraft* are aircraft of air carriers providing scheduled or nonscheduled passenger or freight service, including commuter and air taxi on-demand services. *Major airlines* includes only commercial airlines with operating revenues greater than \$1 billion annually. In 2003 they were: America West Airlines, American Airlines, American Eagle Airlines, ATA Airlines, Alaska Airlines, Continental Airlines, Delta Airlines, DHL Airways, Federal Express, Northwest Airlines, Southwest Airlines, United Airlines, United Parcel Service, and US Airways.

SOURCE: U.S. Department of Transportation (USDOT), Research and Innovative Technology Administration (RITA), Bureau of Transportation Statistics (BTS), calculations using data from USDOT, RITA, BTS, Form 41, Schedule B-43, 1993–2003.

TABLE E-9 Average Fuel Efficiency of U.S. Passenger Cars and Light Trucks: 1995–2005
Miles per gallon

	Average U.S. passenger car fuel efficiency (calendar year)		New vehicle fuel efficiency (model year)				CAFE standards (model year)	
	Passenger car	Other 2-axle 4-tire vehicle	Passenger car	Domestic	Imported	Light truck (<8,500 lbs GVWR)	Passenger car	Light truck
1995	21.1	17.3	28.6	27.7	30.3	20.5	27.5	20.6
1996	21.2	17.2	28.5	28.1	29.6	20.8	27.5	20.7
1997	21.5	17.2	28.7	27.8	30.1	20.6	27.5	20.7
1998	21.6	17.2	28.8	28.6	29.2	21.0	27.5	20.7
1999	21.4	17.0	28.3	28.0	29.0	20.9	27.5	20.7
2000	21.9	17.4	28.5	28.7	28.3	21.3	27.5	20.7
2001	22.1	17.6	28.8	28.7	29.0	20.9	27.5	20.7
2002	22.0	17.5	29.0	29.1	28.8	21.4	27.5	20.7
2003	22.2	16.2	29.5	29.1	29.9	21.8	27.5	20.7
2004	22.5	16.2	29.1	29.3	28.7	21.5	27.5	20.7
2005	22.9	16.2	30.0	30.0	29.9	21.8	27.5	21.0

KEY: CAFE = Corporate Average Fuel Economy; GVWR = gross vehicle weight rating.

NOTES: *New vehicle fuel efficiency* and *CAFE standards* assume 55% city and 45% highway-miles. The fuel efficiency figures for light duty vehicles represent the sales-weighted harmonic average of the combined passenger car and light truck fuel economies.

SOURCES: **Average U.S. passenger car fuel efficiency:** —USDOT, FHWA, *Highway Statistics* (Washington, DC: annual issues), table VM-1.

New vehicle fuel efficiency (based on model year production) and CAFE standards: —USDOT, National Highway Traffic Safety Administration, *Summary of Fuel Economy Performance* (Washington, DC: 2005).

Variables Influencing Travel Behavior, Mode Choice, and Goods Movement

TABLE F-1 Long-Distance Travel in the U.S. by Selected Trip Characteristics: 2001
(Roundtrips to destinations at least 50 miles away)

	Person trips (thousands)		Person-miles (millions)		Personal-use vehicle trips (thousands)		Personal-use vehicle-miles (millions)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
TOTAL	2,617,126	100.0	1,360,813	100.0	2,336,094	100.0	760,325	100.0
Principal means of transportation								
Personal-use vehicle	2,336,094	89.3	760,325	55.9	2,336,094	100.0	760,325	100.0
Airplane	193,290	7.4	557,609	41.0	NA	NA	NA	NA
Commercial airplane	187,063	7.1	551,314	40.5	NA	NA	NA	NA
Bus	55,443	2.1	27,081	2.0	NA	NA	NA	NA
Intercity	22,941	0.9	9,945	0.7	NA	NA	NA	NA
Charter or tour	32,502	1.2	17,136	1.3	NA	NA	NA	NA
Train	21,144	0.8	10,546	0.8	NA	NA	NA	NA
Ship, boat, or ferry	2,040	0.1	4,278	0.3	NA	NA	NA	NA
Other	3,728	0.1	840	0.1	NA	NA	NA	NA
Not reported	5,388	0.2	133	0.0	NA	NA	NA	NA
Roundtrip distance	2,617,126	100.0	1,360,813	100.0	2,336,094	100.0	760,325	100.0
Less than 200 miles	1,249,018	47.7	175,171	12.9	1,209,312	51.8	170,441	22.4
200–299 miles	456,100	17.4	110,937	8.2	439,120	18.8	106,748	14.0
300–499 miles	377,177	14.4	144,972	10.7	355,501	15.2	136,328	17.9
500–999 miles	269,109	10.3	185,695	13.6	231,182	9.9	157,405	20.7
1,000–1,999 miles	132,548	5.1	189,468	13.9	71,481	3.1	97,652	12.8
2,000 miles or more	133,174	5.1	554,569	40.8	29,498	1.3	91,749	12.1
Mean (miles)	520	NA	NA	NA	325	NA	NA	NA
Median (miles)	209	NA	NA	NA	194	NA	NA	NA
Calendar quarter	2,617,126	100.0	1,360,813	100.0	2,336,094	100.0	760,325	100.0
1st quarter	576,111	22.0	291,733	21.4	510,906	21.9	162,400	21.4
2nd quarter	684,382	26.2	397,302	29.2	602,396	25.8	199,958	26.3
3rd quarter	733,488	28.0	374,407	27.5	667,600	28.6	220,300	29.0
4th quarter	623,146	23.8	297,371	21.9	555,192	23.8	177,666	23.4
Main purpose of trip	2,617,126	100.0	1,360,813	100.0	2,336,094	100.0	760,325	100.0
Commute	330,369	12.6	67,599	5.0	318,336	13.6	57,571	7.6
Business	399,312	15.3	279,337	20.5	316,006	13.5	100,665	13.2
Pleasure	1,464,914	56.0	827,035	60.8	1,322,501	56.6	476,681	62.7
Visit relatives or friends	663,203	25.3	357,095	26.2	609,457	26.1	220,583	29.0

(continued on next page)

TABLE F-1 Long-Distance Travel in the U.S. by Selected Trip Characteristics: 2001 (continued)
(Roundtrips to destinations at least 50 miles away)

	Person trips (thousands)		Person-miles (millions)		Personal-use vehicle trips (thousands)		Personal-use vehicle-miles (millions)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Leisure	786,532	30.1	456,201	33.5	700,467	30.0	250,863	33.0
Rest or relaxation	73,810	2.8	30,431	2.2	68,750	2.9	21,602	2.8
Sightseeing	39,764	1.5	20,591	1.5	34,721	1.5	12,828	1.7
Outdoor recreation	125,627	4.8	44,203	3.2	116,724	5.0	34,802	4.6
Entertainment	176,062	6.7	61,561	4.5	154,347	6.6	43,581	5.7
Personal business	245,679	9.4	108,752	8.0	229,706	9.8	76,814	10.1
Other	176,202	6.7	77,342	5.7	149,019	6.4	48,437	6.4
Not reported	651	0.02	748	0.05	526	0.02	157	0.02
Nights away from home	2,617,126	100.0	1,360,813	100.0	2,336,094	100.0	760,325	100.0
None	1,472,089	56.2	321,353	23.6	1,401,406	60.0	279,249	36.7
1-3 nights	821,311	31.4	431,155	31.7	728,311	31.2	284,967	37.5
4-7 nights	230,335	8.8	326,913	24.0	155,194	6.6	124,495	16.4
8 or more nights	93,392	3.6	281,390	20.7	51,183	2.2	71,613	9.4
Mean, excluding none (nights)	3.5	NA	NA	NA	3.0	NA	NA	NA
Type of lodging at destination	2,617,126	100.0	1,360,813	100.0	2,336,094	100.0	760,325	100.0
Friend's or relative's home	480,887	18.4	370,166	27.2	416,652	17.8	204,705	26.9
Hotel, motel, or resort	369,065	14.1	469,505	34.5	252,951	10.8	149,185	19.6
Rented cabin, condo, or vacation home	48,041	1.8	41,529	3.1	42,016	1.8	25,037	3.3
Owned cabin, condo, or vacation home	67,816	2.6	36,725	2.7	63,248	2.7	23,988	3.2
Camper, trailer, recreational vehicle, tent	60,815	2.3	35,118	2.6	59,519	2.5	29,924	3.9
Other type of lodging	99,902	3.8	73,314	5.4	83,930	3.6	38,356	5.0
Did not stay overnight	1,489,330	56.9	333,896	24.5	1,417,045	60.7	288,922	38.0
Not reported	1,271	0.05	559	0.04	731	0.03	208	0.03
Nights at destination								
Mean nights at destination	1.5	NA	NA	NA	1.1	NA	NA	NA
Friend's or relative's home	3.3	NA	NA	NA	2.7	NA	NA	NA
Hotel, motel, or resort	2.8	NA	NA	NA	2.3	NA	NA	NA

KEY: NA = not applicable.

NOTES: Includes other leisure purposes not shown separately. Data may not add to total because of independent rounding.

SOURCE: U.S. Department of Transportation (USDOT), Research and Innovative Technology Administration, Bureau of Transportation Statistics and USDOT, Federal Highway Administration, 2001 National Household Travel Survey Data, CD-ROM, February 2004.

TABLE F-2 Long-Distance Travel in the U.S. by Selected Traveler Characteristics: 2001
(Roundtrips to destinations at least 50 miles away)

	Persons (thousands)		Person trips (thousands)		Person-miles (millions)		Personal-use vehicle trips (thousands)		Personal-use vehicle-miles (millions)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
TOTAL	277,208	100.0	2,617,126	100.0	1,360,813	100.0	2,336,094	100.0	760,325	100.0
Age, total	277,208	100.0	2,617,126	100.0	1,360,813	100.0	2,336,094	100.0	760,325	100.0
Under 5	19,281	7.0	113,329	4.3	56,136	4.1	107,012	4.6	37,220	4.9
5-17 years	52,450	18.9	337,984	12.9	169,303	12.4	297,520	12.7	101,565	13.4
18-24 years	23,918	8.6	209,171	8.0	97,575	7.2	192,499	8.2	60,386	7.9
25-29 years	18,432	6.6	192,382	7.4	109,392	8.0	172,075	7.4	56,290	7.4
30-39 years	43,114	15.6	505,463	19.3	260,673	19.2	447,666	19.2	136,738	18.0
40-49 years	40,924	14.8	483,005	18.5	257,444	18.9	428,672	18.3	134,938	17.7
50-59 years	30,498	11.0	391,161	14.9	204,614	15.0	351,977	15.1	110,109	14.5
60-64 years	11,250	4.1	123,103	4.7	67,517	5.0	111,692	4.8	39,101	5.1
65-74 years	18,345	6.6	155,190	5.9	81,500	6.0	140,226	6.0	53,741	7.1
75 years and over	18,997	6.9	106,337	4.1	56,659	4.2	86,755	3.7	30,237	4.0
Median (years)	33.5	N/A	37.3	NA	NA	NA	37.4	NA	NA	NA
Sex, total	277,208	100.0	2,617,126	100.0	1,360,813	100.0	2,336,094	100.0	760,325	100.0
Male	135,291	48.8	1,499,967	57.3	757,454	55.7	1,347,123	57.7	429,259	56.5
Female	141,917	51.2	1,117,160	42.7	603,358	44.3	988,971	42.3	331,066	43.5
Race, total	277,208	100.0	2,617,126	100.0	1,360,813	100.0	2,336,094	100.0	760,325	100.0
White	193,338	69.7	2,033,914	77.7	1,058,412	77.8	1,821,143	78.0	595,944	78.4
Black	33,877	12.2	207,350	7.9	91,393	6.7	180,399	7.7	59,363	7.8
Asian or Pacific Islander	7,223	2.6	49,559	1.9	59,235	4.4	39,501	1.7	12,067	1.6
American Indian, Eskimo, or Aleutian	1,316	0.5	12,565	0.5	5,975	0.4	11,688	0.5	3,693	0.5
Other	39,472	14.2	294,628	11.3	136,480	10.0	266,200	11.4	84,115	11.1
Not reported	1,983	0.7	19,110	0.7	9,318	0.7	17,163	0.7	5,144	0.7
Ethnicity, total	277,208	100.0	2,617,126	100.0	1,360,813	100.0	2,336,094	100.0	760,325	100.0
Hispanic origin	35,043	12.6	253,100	9.7	118,516	8.7	227,266	9.7	71,465	9.4
Not of Hispanic origin	242,165	87.4	2,364,026	90.3	1,242,297	91.3	2,108,828	90.3	688,859	90.6
Household income	277,208	100.0	2,617,126	100.0	1,360,813	100.0	2,336,094	100.0	760,325	100.0
Less than \$25,000	58,935	21.3	327,852	12.5	133,903	9.8	302,354	12.9	95,773	12.6
\$25,000-\$39,999	54,404	19.6	454,543	17.4	188,296	13.8	422,556	18.1	138,312	18.2
\$40,000-\$49,999	29,471	10.6	297,383	11.4	135,256	9.9	278,871	11.9	86,849	11.4
\$50,000-\$59,999	26,622	9.6	285,398	10.9	147,926	10.9	260,465	11.1	85,859	11.3
\$60,000-\$74,999	25,557	9.2	305,461	11.7	134,024	9.8	281,037	12.0	83,941	11.0
\$75,000-\$99,999	32,264	11.6	380,371	14.5	221,657	16.3	332,095	14.2	107,055	14.1
\$100,000 or more	33,587	12.1	444,802	17.0	334,526	24.6	359,642	15.4	129,050	17.0
Not reported	16,369	5.9	121,316	4.6	65,224	4.8	99,074	4.2	33,486	4.4

(continued on next page)

TABLE F-2 Long-Distance Travel in the U.S. by Selected Traveler Characteristics: 2001 (continued)
(Roundtrips to destinations at least 50 miles away)

Household type	Persons (thousands)		Person trips (thousands)		Person-miles (millions)		Personal-use vehicle trips (thousands)		Personal-use vehicle-miles (millions)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Household type	277,208	100.0	2,617,126	100.0	1,360,813	100.0	2,336,094	100.0	760,325	100.0
One adult, no children	13,743	5.0	139,195	5.3	84,619	6.2	119,661	5.1	38,003	5.0
One adult, youngest child 0-5	5,736	2.1	25,736	1.0	15,239	1.1	21,777	0.9	6,528	0.9
One adult, youngest child 6-15	8,242	3.0	70,325	2.7	31,689	2.3	63,413	2.7	18,918	2.5
One adult, youngest child 16-21	2,614	0.9	22,080	0.8	7,677	0.6	18,741	0.8	4,967	0.7
One adult, retired, no children	8,750	3.2	42,932	1.6	23,648	1.7	36,142	1.5	11,325	1.5
Two or more adults, no children	50,160	18.1	620,148	23.7	355,433	26.1	542,463	23.2	175,694	23.1
Two or more adults, youngest child 0-5	69,688	25.1	593,106	22.7	291,117	21.4	536,070	22.9	172,395	22.7
Two or more adults, youngest child 6-15	64,237	23.2	590,787	22.6	292,422	21.5	530,746	22.7	167,498	22.0
Two or more adults, youngest child 16-21	18,741	6.8	205,093	7.8	101,686	7.5	182,859	7.8	57,110	7.5
Two or more adults, retired, no children	35,297	12.7	307,725	11.8	157,284	11.6	284,221	12.2	107,887	14.2
Educational attainment, total (Persons 16 years and over)	208,479	100.0	2,173,473	100.0	1,144,890	100.0	1,940,042	100.0	624,049	100.0
Less than high school graduate	30,601	14.7	183,801	8.5	84,797	7.4	162,768	8.4	49,856	8.0
High school graduate	63,428	30.4	585,117	26.9	225,637	19.7	554,002	28.6	168,467	27.0
Some college, no degree	43,377	20.8	458,953	21.1	211,462	18.5	423,517	21.8	137,884	22.1
Associate's degree	13,570	6.5	162,145	7.5	80,413	7.0	146,649	7.6	46,528	7.5
Bachelor's degree	33,063	15.9	437,767	20.1	285,168	24.9	369,402	19.0	126,532	20.3
Some grad school or grad degree	23,237	11.1	339,237	15.6	253,592	22.1	278,227	14.3	93,484	15.0
Not reported	1,202	0.6	6,453	0.3	3,822	0.3	5,477	0.3	1,299	0.2
Activity status, total (Persons 16 years and over)	208,479	100.0	2,173,473	100.0	1,144,890	100.0	1,940,042	100.0	624,049	100.0
Working full time	115,428	55.4	1,426,531	65.6	716,671	62.6	1,275,103	65.7	382,355	61.3
Retired	35,611	17.1	254,291	11.7	137,388	12.0	230,254	11.9	85,957	13.8
Other	57,098	27.4	491,046	22.6	289,717	25.3	433,191	22.3	155,015	24.8
Not reported	342	0.2	1,605	0.1	1,115	0.1	1,495	0.1	722	0.1

KEY: NA = not applicable.

NOTES: Data may not add to total because of independent rounding.

SOURCE: U.S. Department of Transportation (USDOT), Research and Innovative Technology Administration, Bureau of Transportation Statistics and USDOT, Federal Highway Administration, 2001 National Household Travel Survey Data, CD-ROM, February 2004.

TABLE F-3 Households Without a Vehicle

	Percentage of households				
	All occupied units	Below poverty level	65 or older	Black	Hispanic
1993	10.3	32.7	19.7	28.0	17.5
1995	9.8	30.3	18.4	24.7	17.1
1997	9.5	29.1	17.9	24.2	15.3
1999	9.3	27.4	17.1	22.6	15.1
2001	8.8	27.2	16.9	20.9	13.4
2003	8.6	26.6	15.8	19.8	13.4
2005	8.5	26.6	15.6	20.2	11.9

	Number of households (thousands)				
	All occupied units	Below poverty level	65 or older	Black	Hispanic
1993	9,793	4,512	4,017	3,114	1,155
1995	9,583	4,446	3,844	2,913	1,327
1997	9,447	4,580	3,742	2,919	1,306
1999	9,542	3,902	3,656	2,923	1,369
2001	9,342	3,977	3,697	2,783	1,311
2003	9,089	3,708	3,418	2,578	1,482
2005	9,227	4,026	3,465	2,712	1,382

NOTE: *Households without a vehicle* do not have a car, truck or van. A housing unit is classified as occupied if there is at least one person who lives in the unit as a usual resident at the time of the survey or if the occupants are only temporarily absent (e.g., on vacation).

SOURCE: U.S. Department of Housing and Urban Development and U.S. Department of Commerce, U.S. Census Bureau, *American Housing Survey for the United States*, H150 (Washington, DC: Biennial issues).

TABLE F-4 Vehicle Availability by Household

	Vehicles per household	Licensed drivers per household
1969	1.16	1.65
1977	1.59	1.69
1983	1.68	1.72
1990	1.77	1.75
1995	1.78	1.78
2001	1.90	1.75

SOURCE: 1969, 1977, 1983, 1990, 1995—U.S. Department of Transportation, Federal Highway Administration, *Summary of Travel Trends, 1995 Nationwide Personal Transportation Survey* (Washington, DC: 1999). **2001**—U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Highlights of the 2001 National Household Travel Survey (Washington, DC: 2003).

TABLE F-5 How People Get to Work: 2005

	Percentage of workers	Number of workers (thousands)
Drives self	79.3	97,781
Carpool	9.1	11,224
Mass transportation	4.4	5,424
Works at home	3.4	4,148
Walks only	2.3	2,875
Taxicab and other means	0.9	1,093
Bicycle or motorcycle	0.6	705
Total	100.0	123,250

NOTE: Data may not add to total due to independent rounding.

SOURCE: U.S. Department of Housing and Urban Development and U.S. Department of Commerce, U.S. Census Bureau, *American Housing Survey for the United States*, H150 (Washington, DC: Biennial issues).

TABLE F-6 Departure Time to Work
Number of households (thousands)

	1997	1999	2001	2003	2005
12:00 a.m. to 2:59 a.m.	663	729	690	658	678
3:00 a.m. to 5:59 a.m.	10,810	11,355	12,189	11,624	13,477
6:00 a.m. to 6:59 a.m.	20,722	20,737	21,469	20,291	21,428
7:00 a.m. to 7:29 a.m.	16,559	16,604	16,982	15,632	17,089
7:30 a.m. to 7:59 a.m.	15,869	15,328	15,849	14,279	14,779
8:00 a.m. to 8:29 a.m.	12,379	12,622	12,235	12,548	12,911
8:30 a.m. to 8:59 a.m.	5,834	5,790	6,021	5,936	6,336
9:00 a.m. to 9:59 a.m.	5,610	5,646	6,162	6,197	7,015
10:00 a.m. to 3:59 p.m.	10,847	10,777	11,069	10,460	11,713
4:00 p.m. to 11:59 p.m.	7,382	7,050	7,036	6,484	6,892
Not reported	6,185	8,117	6,785	7,696	6,784

NOTE: Does not include those that worked at home.

SOURCE: U.S. Department of Housing and Urban Development and U.S. Department of Commerce, U.S. Census Bureau, *American Housing Survey for the United States*, H150 (Washington, DC: Biennial issues).

Transportation Costs for Passengers and Goods Movement

TABLE G-1 Expenditures on Passenger and Freight Transportation: 1991–2001
Millions (Current dollars)

	TOTAL passenger transportation expenditures	Highway	Air	Rail	Water
1991	591,715	513,069	72,841	4,414	1,391
1992	626,791	546,971	73,780	4,571	1,469
1993	664,883	583,977	74,123	5,278	1,505
1994	717,787	635,195	76,146	4,882	1,564
1995	747,412	657,410	81,155	6,693	2,155
1996	799,807	709,738	82,331	5,895	1,843
1997	846,731	745,726	93,268	5,763	1,974
1998	867,445	762,367	97,358	5,691	2,029
1999	936,917	827,468	101,750	5,611	2,088
2000	991,190	859,697	119,997	6,834	4,663
2001	1,010,172	886,697	111,866	7,421	4,187

	TOTAL freight transportation expenditures	Highway	Air	Rail	Water	Oil pipeline	Other	TOTAL passenger and freight transportation expenditures
1991	355,209	274,381	14,353	30,003	20,306	8,095	8,071	946,924
1992	375,080	292,930	14,950	30,473	19,895	8,548	8,284	1,001,871
1993	396,335	311,878	15,805	30,775	20,768	8,470	8,639	1,061,218
1994	420,320	330,716	17,249	33,121	21,150	8,676	9,408	1,138,107
1995	442,597	348,109	18,755	34,605	22,709	9,077	9,342	1,190,009
1996	467,203	368,545	20,448	35,059	24,564	8,637	9,950	1,267,010
1997	495,065	396,668	22,831	35,349	21,031	8,632	10,554	1,341,796
1998	528,430	427,231	24,222	35,294	22,503	8,579	10,601	1,395,875
1999	561,755	456,781	25,277	35,893	24,494	9,067	10,243	1,498,672
2000	575,775	460,841	27,648	36,454	28,670	8,958	13,204	1,566,965
2001	579,610	467,299	25,810	36,736	27,632	9,066	13,068	1,589,782

NOTES: Expenditures include private and for-hire transportation. *Air passenger* includes aircraft and operating costs, plus domestic and international air passenger federal excise taxes. *Rail passenger* include federal operating subsidies and capital grants for Amtrak and the Northeast Corridor. *Water passenger* includes international. *Air freight* includes domestic and international. *Other* includes domestic freight forwarder's revenues after payment to live-haul carriers plus other shipper costs such as loading and unloading freight cars.

SOURCE: Eno Transportation Foundation Inc., *Transportation in America 2002* (Washington, DC: 2002), pp.38-41.

TABLE G-2 Sales Price of Transportation Fuel to End-Users: 1995-2005
Cents/gallon (Current dollars)

	Aviation fuel (excluding taxes)		Highway fuel (including taxes)				Railroad fuel
	Aviation gasoline	Jet fuel kerosene	Gasoline, premium	Gasoline, regular	Gasoline, all types	Diesel no. 2 (excluding taxes)	Diesel
1995	100.5	54.0	133.6	114.7	120.5	56.0	60.0
1996	111.6	65.1	141.3	123.1	128.8	68.1	67.7
1997	112.8	61.3	141.6	123.4	129.1	64.2	67.8
1998	97.5	45.2	125.0	105.9	111.5	49.4	57.0
1999	105.9	54.3	135.7	116.5	122.1	58.4	55.5
2000	130.6	89.9	169.3	151.0	156.3	93.5	87.5
2001	132.3	77.5	165.7	146.1	153.1	84.2	85.5
2002	128.8	72.1	155.6	135.8	144.1	76.2	73.3
2003	149.3	87.2	177.7	159.1	163.8	94.4	89.3
2004	181.9	120.7	206.8	188.0	192.3	124.3	107.0
2005	224.6	173.6	249.1	229.5	233.8	177.6	151.4

NOTES: All costs are yearly average. *Aviation gasoline, jet fuel kerosene, and diesel no. 2* include sales to end-users (those sales made directly to the ultimate consumer, including bulk customers in agriculture, industry, and utility). *Gasoline, premium, and regular* are average retail price.

SOURCE: All data except railroad fuel—U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review* (Washington, DC: March 2006), tables 9.4 and 9.7. **Railroad fuel**—Association of American Railroads, *Railroad Facts 2006* (Washington, DC: 2006).

TABLE G-3 Average Household Transportation Expenditures: 1994–2004
Chained 2000 dollars

	Vehicle purchases	Gasoline and motor oil	Other vehicle expenses	Other transportation	Total
1994	2,889	1,287	1,925	437	6,538
1995	2,693	1,293	1,979	396	6,361
1996	2,820	1,310	2,025	467	6,621
1997	2,732	1,330	2,206	421	6,689
1998	2,989	1,415	2,202	450	7,056
1999	3,320	1,349	2,262	407	7,337
2000	3,418	1,291	2,281	427	7,417
2001	3,561	1,328	2,317	393	7,600
2002	3,663	1,366	2,370	378	7,777
2003	3,822	1,268	2,216	363	7,669
2004	3,514	1,289	2,237	407	7,448

NOTES: Data may not add to total because of independent rounding. Data are based on survey results. Other transportation includes fares for mass transit, buses, trains, airlines, taxis, school buses for which a fee is charged, and boats.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Expenditure Survey*, available at <http://www.bls.gov/>, as of March 2006.

TABLE G-4 Average Passenger Fares: 1995–2005
Current dollars

	Air carrier, domestic, scheduled service	Class I bus, intercity	Transit, all modes (unlinked)	Commuter rail	Intercity rail/ Amtrak
1995	106.66	20.10	0.88	3.13	39.92
1996	110.37	22.85	0.93	3.25	43.31
1997	114.10	20.83	0.90	3.30	45.26
1998	114.34	23.14	0.91	3.29	44.75
1999	114.98	26.16	0.90	3.30	46.85
2000	121.27	29.46	0.93	3.32	49.61
2001	111.60	30.27	0.92	3.44	51.58
2002	101.94	30.11	0.89	3.49	55.15
2003	103.75	U	0.97	3.79	50.58
2004	103.59	U	1.02	3.90	50.04
2005	106.22	U	U	U	49.08

KEY: U = data are not available.

NOTE: *Class I bus* includes regular route intercity service.

Air carrier = passenger revenue/revenue passenger enplanements. Class I bus = operating revenue/revenue passengers. Transit = passenger fares/passenger trips. Commuter rail = passenger fares/passenger trips. Intercity rail = ticket revenue per passenger-mile/average trip length per passenger.

SOURCE: Various sources, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics 2006*, table 3-15a, available at <http://www.bts.gov/>, as of September 2006.

The Air Travel Price Index (ATPI) is a measure of the change over time in the prices paid by air travelers, based on actual fares paid by travelers, not published fares.

FIGURE G-5 Comparison of Air Travel Price Indexes: 1995–2005
Q1: 1995 = 100.0

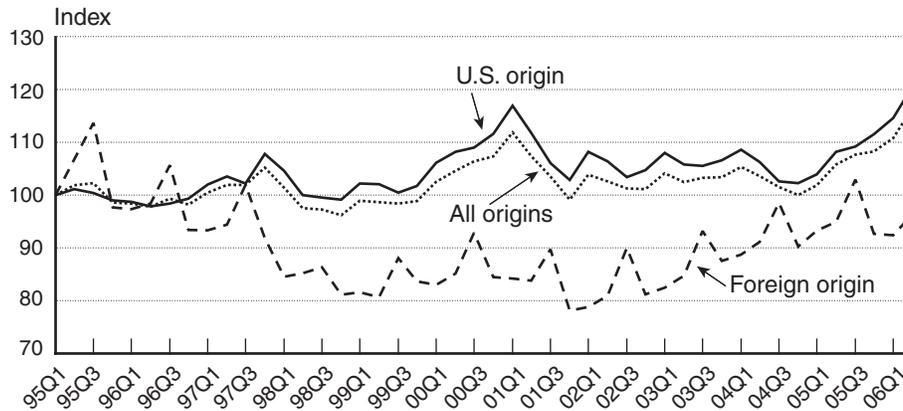


TABLE G-5 Comparison of Air Travel Price Indexes: 2000–2005
Not seasonally adjusted, domestic carriers only
Q1: 1995 = 100.0

Quarter	Air Travel Price Index (All origins)	Air Travel Price Index (U.S. origin only)	Air Travel Price Index (Foreign origin only)
00Q1	102.5	106.1	83.0
00Q2	104.6	108.2	85.1
00Q3	106.4	109.0	92.8
00Q4	107.3	111.6	84.4
01Q1	111.8	116.9	84.2
01Q2	107.4	111.8	83.8
01Q3	103.5	106.0	89.7
01Q4	99.1	102.9	78.1
02Q1	103.8	108.2	78.8
02Q2	102.6	106.4	80.9
02Q3	101.2	103.4	90.0
02Q4	101.1	104.7	81.2
03Q1	104.1	108.0	82.5
03Q2	102.5	105.8	84.7
03Q3	103.3	105.5	93.2
03Q4	103.4	106.6	87.5
04Q1	105.3	108.6	88.7
04Q2	103.6	106.2	91.1
04Q3	101.5	102.6	98.5
04Q4	100.0	102.2	90.3
05Q1	101.8	103.9	93.3
05Q2	105.8	108.2	94.9
05Q3	107.7	109.2	102.9
05Q4	108.3	111.5	92.6
06Q1	110.8	114.6	92.4
06Q2	116.5	120.6	96.4

NOTES: The Bureau of Transportation Statistics computes the *Air Travel Price Index* values using the Fisher Index formula. *U.S. origin only* measures change in the cost of itineraries originating in the United States, whether the destinations are domestic or international. *Foreign origin only* measures change in the cost of itineraries with a foreign origin and a U.S. destination. *All origins* (Full-scope ATPI) combines the U.S.- and foreign-origin itineraries. See source for balance of data.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Air Travel Price Index*, available at <http://www.bts.gov/>, as of November 2006.

TABLE G-6 Average Cost per Mile of Owning and Operating an Automobile: 1994–2004
Cents

	Variable costs	Fixed costs	Total costs
1994	9	30	39
1995	10	32	42
1996	10	33	43
1997	11	34	45
1998	11	35	46
1999	11	36	47
2000	12	37	49
2001	14	37	51
2002	12	38	50
2003	13	39	52
2004	13	44	56

NOTE: Data are the cost per mile based on 15,000 miles per year and a composite of three current model American automobiles. *Variable costs* include fuel, maintenance, and tires. Fuel costs are based on a late year average price per gallon of regular unleaded gasoline. *Fixed costs* (ownership costs) include insurance, license, registration, taxes, depreciation, and finance charges.

SOURCE: U.S. Department of Transportation (USDOT), Research and Innovative Technology Administration (RITA), Bureau of Transportation Statistics (BTS) calculations based on USDOT, RITA, BTS, *National Transportation Statistics 2006*, table 3-14, available at <http://www.bts.gov/>, as of June 2006.

Availability and Use of Mass Transit/ For-Hire Transportation

Table H-1 Domestic Enplanements at U.S. Airports: 1994–2004
Thousands of passengers

	Total enplanements	Large hubs	Medium hubs	Small hubs	Nonhubs
1994	508,458	372,731	88,601	34,444	12,682
1995	526,055	392,602	85,929	33,561	13,963
1996	558,184	417,340	89,019	37,123	14,702
1997	568,616	426,246	90,780	36,299	15,291
1998	588,335	442,402	91,756	37,675	16,502
1999	610,629	458,665	96,395	38,645	16,924
2000	639,447	467,620	113,405	40,389	18,033
2001	595,973	403,617	133,153	40,693	18,510
2002	577,423	426,962	97,579	37,713	15,168
2003	595,150	400,639	126,877	49,025	18,609
2004	655,116	462,825	123,871	50,491	17,928
2005	701,088	483,869	140,896	53,115	23,207

NOTE: U = data are unavailable.

SOURCE: 1994-1999— U.S. Department of Transportation (USDOT), Research and Innovative Technology Administration (RITA), Bureau of Transportation Statistics (BTS), *Airport Activity Statistics of Certified Route Air Carriers* (Washington, DC: Annual issues), tables 2, 3, 4, and 5. **2000-2005**— USDOT, RITA, BTS, Airport Activity Statistics Database (Form 41 Schedule T-3), special tabulation.

TABLE H-2 Amtrak Ridership: 1995–2005
Thousands of revenue passengers

	Passengers
1995	20,349
1996	19,700
1997	20,200
1998	21,248
1999	21,544
2000	22,985
2001	23,444
2002	23,269
2003	24,595
2004	25,215
2005	25,076

SOURCE: 1995-2002, 2004—Association of American Railroads, *Railroad Facts* (Washington, DC: annual issues). **2003, 2005**—U.S. Department of Transportation, Federal Railroad Administration, Office of Safety, Operational Data Tables, available at: <http://safetydata.fra.dot.gov/officeofsafety/>, as of June 2006.

TABLE H-3 Top 20 Transit Agencies by Unlinked Passenger Trips: FY 2004

Agency	Number of unlinked trips (thousands)
MTA New York City Transit (NYCT)	2,655,645
Chicago Transit Authority (CTA)	474,751
Washington Metropolitan Area Transit Authority (WMATA)	397,783
Los Angeles County Metropolitan Transportation Authority (LACMTA)	393,598
Massachusetts Bay Transportation Authority (MBTA)	389,910
Southeastern Pennsylvania Transportation Authority (SEPTA)	332,690
New Jersey Transit Corporation (NJTransit)	229,888
San Francisco Municipal Railway (MUNI)	215,744
Metropolitan Atlanta Rapid Transit Authority (MARTA)	136,157
Maryland Transit Administration (MTA)	112,634
King County Department of Transportation (King County Metro)	102,089
Miami-Dade Transit (MDT)	98,544
Tri-County Metropolitan Transportation District of Oregon (TriMet)	98,413
San Francisco Bay Area Rapid Transit District (BART)	97,546
MTA Long Island Rail Road (MTA-LIRR)	96,202
Metropolitan Transit Authority of Harris County, Texas (Metro)	95,882
Denver Regional Transportation District (RTD)	82,363
Dallas Area Rapid Transit (DART)	77,036
Metro-North Commuter Railroad Company (MTA-MNCR)	72,618
GTJC (MTA NYCT took over service in 2005)	69,759
Total, top 20 agencies	6,229,250
Total, all agencies	9,575,323
Top 20 agencies percent of all agencies	65.06

NOTES: Data may not add to total because of independent rounding. GTJC is the transit alliance between Green Bus Lines, Triboro Coach, Jamaica Buses, and Command Buses.

SOURCE: American Public Transportation Association, *2006 Public Transportation Factbook*, Table 3 and 4, available at <http://www.apta.com/>, as of May 2006.

TABLE H-4 Transit Passenger-Miles by Type of Service: 1994–2004

Millions

	Bus	Heavy rail	Commuter rail	Light rail	Paratransit	Other	Total
1994	18,832	10,668	7,996	833	577	679	39,585
1995	18,818	10,559	8,244	860	607	720	39,808
1996	19,096	11,530	8,351	957	656	788	41,378
1997	19,604	12,056	8,038	1,035	754	852	42,339
1998	20,360	12,284	8,704	1,128	735	917	44,128
1999	21,205	12,902	8,766	1,206	813	965	45,857
2000	21,241	13,844	9,402	1,356	839	984	47,666
2001	22,022	14,178	9,548	1,437	855	1,030	49,070
2002	21,841	13,663	9,504	1,432	853	1,031	48,324
2003	21,262	13,606	9,559	1,476	930	1,069	47,903
2004	21,377	14,354	9,719	1,576	962	1,084	49,073

NOTES: *Paratransit* (also called demand response or dial-a-ride) is comprised of passenger cars, vans or small buses operating in response to calls from passengers or their agents to the transit operator, who then dispatches a vehicle to pick up the passengers and transport them to their destinations. *Other* includes modes such as automated guideway, Alaska Railroad, cable car, ferryboat, inclined plane, monorail, trolleybus, and vanpool. Data may not add to total because of independent rounding.

SOURCE: American Public Transportation Association, *2006 Public Transportation Factbook*, Table 10, available at <http://www.apta.com/>, as of May 2006.

TABLE H-5 Transit Unlinked Trips by Type of Service: 1994–2004
 Millions of unlinked trips

	Bus	Heavy rail	Commuter rail	Light rail	Other	Total
1994	4,629.4	2,169.4	339.0	282.2	282.0	7,701.6
1995	4,579.1	2,033.5	343.5	249.3	298.0	7,503.7
1996	4,505.6	2,156.9	352.2	258.7	291.0	7,564.6
1997	4,602.0	2,429.5	357.2	259.4	306.0	7,954.2
1998	4,753.7	2,392.8	380.6	272.9	315.0	8,115.1
1999	4,991.9	2,521.4	395.7	288.6	326.0	8,523.2
2000	5,040.2	2,632.2	412.8	316.2	318.6	8,719.9
2001	5,215.1	2,728.3	418.1	333.9	312.0	9,007.8
2002	5,267.5	2,688.0	414.1	336.5	311.0	9,016.7
2003	5,146.5	2,666.8	409.7	337.7	315.3	8,876.0
2004	5,094.4	2,747.6	413.9	349.9	331.2	8,937.1

NOTE: *Other* includes vanpool, demand response, ferryboats, inclined planes, monorail, jitney, publico, Alaska Railroad, aerial tramway, and trolley buses. Data may not add to total because of independent rounding.

SOURCE: U.S. Department of Transportation, Federal Transit Administration, *National Transit Summaries and Trends*, annual reports, available at <http://www.ntdprogram.com/>, as of August 2006.

TABLE H-6 Transit Rail Stations that are ADA-Compliant by Service Type: 1994–2004
Number

	Commuter rail	Heavy rail	Light rail	Other rail	ADA-compliant stations	Total number of stations	ADA-compliant stations (percent)
1994	262	231	164	2	659	2,554	25.8
1995	322	237	168	2	729	2,573	28.3
1996	356	245	233	2	836	2,617	31.9
1997	388	256	265	2	911	2,643	34.5
1998	500	258	290	2	1,050	2,675	39.3
1999	533	284	351	2	1,170	2,728	42.9
2000	552	340	384	2	1,278	2,777	46.0
2001	583	359	408	5	1,355	2,807	48.3
2002	624	366	458	9	1,457	2,786	52.3
2003	643	416	466	12	1,537	2,799	54.9
2004	666	428	589	12	1,695	2,911	58.2

KEY: ADA = Americans with Disabilities Act.

NOTES: *Other rail* includes monorail and (for 2001-2004 only) Alaska Railroad. Table does not include station data for automated guideway, jitney, and inclined plane transit services. Data may not add to total because of independent rounding.

SOURCES: **1994-2001:** U.S. Department of Transportation (USDOT), Federal Transit Administration (FTA), personal communication, May 2005. **2002-2004:** USDOT, FTA, *National Transit Database Data Tables*, Annual Reports, table 21, available at <http://www.ntdprogram.com/>, as of April 2006.

TABLE H-7 Buses that are ADA-Compliant: 1994–2004
Number

	Total number of buses	ADA-compliant buses	ADA-compliant buses (percent)
1994	57,023	31,065	54.5
1995	57,322	35,381	61.7
1996	57,369	38,316	66.8
1997	58,975	40,932	69.4
1998	60,830	46,278	76.1
1999	63,618	51,213	80.5
2000	65,324	54,585	83.6
2001	67,379	58,785	87.2
2002	68,418	64,407	94.1
2003	68,596	65,375	95.3
2004	68,789	67,454	98.1

KEY: ADA = Americans with Disabilities Act.

SOURCE: U.S. Department of Transportation, Federal Transit Administration, *National Transit Summaries and Trends*, annual reports, available at <http://www.ntdprogram.com/>, as of August 2006.

Frequency of Transportation Service Interruptions

A roadside inspection is an examination of individual commercial motor vehicles and drivers to determine if they are in compliance with the Federal Motor Carrier Safety Regulations or Hazardous Materials Regulations. If a serious violation is detected, the driver is issued an out-of-service order. The violation must then be corrected before the driver or vehicle may return to service.

TABLE I-1 Roadside Truck Inspections: 1995–2005
Thousands

	Trucks inspected	Trucks taken out of service	Inspected trucks taken out of service (percent)
1995	1,840	417	23
1996	2,039	437	21
1997	2,148	439	20
1998	1,763	448	25
1999	1,862	453	24
2000	1,928	457	24
2001	2,072	486	23
2002	2,173	498	23
2003	2,165	495	23
2004	2,253	532	24
2005	2,093	490	23

NOTES: Trucks are taken out of service (OOS) when inspectors find serious violations that warrant the issuance of a vehicle OOS order. There may be data inconsistencies across the 1995-2005 time series. The Bureau of Transportation Statistics obtained the data at different times (see Sources) and was unable to verify the consistency of the entire data series prior to publication.

SOURCES: 1995-1998—U.S. Department of Transportation (USDOT), Federal Motor Carrier Safety Administration (FMCSA), Motor Carrier Management Information System, available at <http://www.fmcsa.dot.gov/>, as of June 2003.

1999-2000—USDOT, FMCSA, personal communication, Aug. 11, 2003.

2001-2002—USDOT, FMCSA, Roadside Inspection Activity Summary by Inspection Type, available at <http://ai.volpe.dot.gov/>, as of March 2005. **2003-2005**—USDOT, FMCSA, Roadside Inspection Activity Summary by Inspection Type, available at <http://ai.volpe.dot.gov/>, as of April 2006.

TABLE I-2 Rail Replaced or Added by U.S. Class I Railroads: 1994–2004
Thousands of tons

	Rail replaced	Rail added
1994	728.8	62.9
1995	657.6	61.3
1996	803.3	68.7
1997	642.7	113.8
1998	679.0	204.8
1999	769.3	213.4
2000	726.1	196.3
2001	660.1	197.0
2002	635.5	125.2
2003	632.6	139.4
2004	591.4	45.1

SOURCES: 1994-1999—Association of American Railroads, *Railroad Ten-Year Trends, 1990–2000* (Washington, DC: 2000); **2000–2004**—Association of American Railroads, *Analysis of Class I Railroads* (Washington, DC: 2001-2005).

TABLE I-3 Crossties Replaced or Added by U.S. Class I Railroads: 1994–2004
Millions of crossties

	Crossties replaced	Crossties added
1994	12.3	0.6
1995	12.1	0.7
1996	13.4	0.8
1997	11.9	1.5
1998	10.4	1.8
1999	10.8	1.3
2000	10.8	0.7
2001	11.4	0.5
2002	13.1	0.3
2003	13.2	0.5
2004	13.3	0.5

SOURCES: 1994–1999—Association of American Railroads, *Railroad Ten-Year Trends, 1990–2000* (Washington, DC: 2000); **2000–2004**—Association of American Railroads, *Analysis of Class I Railroads* (Washington, DC: 2001–2005).

TABLE I-4 New and Rebuilt Locomotives and Freight Cars: 1995–2005

	Locomotives	Percentage of fleet	Freight cars	Percentage of fleet
1995	1,129	6.0	66,052	5.4
1996	821	4.3	59,993	4.8
1997	811	4.1	51,963	4.1
1998	1,061	5.2	83,076	6.3
1999	865	4.3	77,901	5.7
2000	721	3.6	58,245	4.2
2001	755	3.8	35,475	2.7
2002	778	3.8	18,832	1.4
2003	621	3.0	33,155	2.6
2004	1,126	5.1	47,843	3.7
2005	911	4.0	70,154	5.3

NOTES: Locomotive data are for Class I railroads only. Freight car data cover Class I railroads, other railroads, and private car owners.

SOURCE: Association of American Railroads, *Railroad Facts 2006* (Washington, DC: 2006), pp. 49, 51, and 55.

TABLE I-5 Interruptions of Service by Type of Transit: 1995–2000 and 2001–2004
Number per 100,000 revenue vehicle-miles

	Motor bus	Light rail	Heavy rail	Commuter rail	Demand response
1995	38	33	4	4	4
1996	38	27	4	3	4
1997	37	21	3	3	5
1998	38	15	7	3	5
1999	38	17	7	3	5
2000	37	15	6	3	5
2001	27	14	3	2	4
2002	24	14	5	1	3
2003	22	14	3	1	4
2004	21	13	4	0	3

NOTES: Data from 1995–2000 and 2001–2004 are not comparable due to a methodology change. *Interruptions of service* include major and minor mechanical failures. Since 2001, if the vehicle operator was able to fix the problem and return the vehicle to service without assistance, the incident has not been considered an interruption of service. For definitions of service types, see Glossary.

SOURCES: U.S. Department of Transportation (USDOT), Research and Innovative Technology Administration, Bureau of Transportation Statistics, calculations based on various data. **Revenue vehicle-miles**—USDOT, Federal Transit Administration (FTA), National Transit Database, *2004 National Transit Summaries and Trends*, available at <http://www.ntdprogram.com/>, as of April 2005. **1995–2004 interruptions of service**—USDOT, FTA, National Transit Database, 2004 Data Tables, Revenue Vehicle Maintenance Performance table, available at <http://www.ntdprogram.com/>, as of August 2006.

TABLE I-6 St. Lawrence Seaway U.S. Locks Downtime by Cause: 1995–2005
Hours of downtime, unless otherwise noted

	Weather related	Vessel incident	All other causes	Total downtime hours	Weather (percentage of total)	System availability (percentage)
1995	88.5	32.6	16.7	137.8	64	99.0
1996	143.4	38.3	5.9	187.6	76	97.0
1997	65.2	31.2	35.6	132.0	49	98.0
1998	43.2	43.3	12.1	98.6	44	98.5
1999	2.0	46.3	1.3	49.6	4	99.2
2000	53.7	27.8	2.6	84.1	64	98.7
2001	56.8	45.1	8.9	110.8	51	98.3
2002	41.1	16.9	5.1	63.1	65	99.1
2003	57.6	15.9	0.0	73.5	78	98.9
2004	43.8	15.0	7.2	66.0	66	99.0
2005	16.9	12.1	6.0	35.0	48	99.5

NOTES: *Weather-related* causes includes poor visibility and high wind/ice; *All other causes* includes lock equipment malfunction, civil interference, pilotage, and water level/flow. These data pertain only to the two U.S. locks (Snell and Eisenhower) on the St. Lawrence Seaway between the Port of Montreal and Lake Ontario. Canada operates another five locks along this portion of the Seaway, as well as other Seaway locks at the Welland Canal.

SOURCES: **1995–2001**—U.S. Department of Transportation, Saint Lawrence Seaway Development Corp. (SLSDC), *Annual Reports* (Washington, DC: Various years). Reports for 1997–2001 available at <http://www.greatlakes-seaway.com/>, as of March 2004. **2002, 2003, 2004, and 2005**—SLDC, personal communication, March and December 2004, February 2005 and May 2006.

Safety and Security

TABLE J-1 Transportation Fatalities by Mode: 1995-2005

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Air	964	1,093	724	671	681	764	1,166	616	698	636	602
U.S. air carrier	168	380	8	1	12	92	531	0	22	14	22
Commuter carrier	9	14	46	0	12	5	13	0	2	0	0
On-demand air taxi	52	63	39	45	38	71	60	35	42	64	18
General aviation	735	636	631	625	619	596	562	581	632	558	562
Highway	41,817	42,065	42,013	41,501	41,717	41,945	42,196	43,005	42,884	42,836	43,443
Passenger car occupants	22,423	22,505	22,199	21,194	20,862	20,699	20,320	20,569	19,725	19,192	18,440
Motorcyclists	2,227	2,161	2,116	2,294	2,483	2,897	3,197	3,270	3,714	4,028	4,553
Truck occupants, light	9,568	9,932	10,249	10,705	11,265	11,526	11,723	12,274	12,546	12,674	12,975
Truck occupants, large	648	621	723	742	759	754	708	689	726	766	803
Bus occupants	33	21	18	38	59	22	34	45	41	42	58
Pedestrians	5,584	5,449	5,321	5,228	4,939	4,763	4,901	4,851	4,774	4,675	4,881
Pedalcyclists	833	765	814	760	754	693	732	665	629	727	784
Other	501	609	573	540	596	591	581	642	729	732	949
Pipeline	21	53	10	21	22	38	7	12	12	23	19
Hazardous liquid pipeline	3	5	0	2	4	1	0	1	0	5	2
Gas pipeline	18	48	10	19	18	37	7	11	12	18	17
Railroad	1,146	1,039	1,063	1,008	932	937	971	951	868	897	888
Highway-rail grade crossing	579	488	461	431	402	425	421	357	334	371	357
Railroad	567	551	602	577	530	512	550	594	534	526	531
Transit	274	264	275	286	299	295	267	280	234	248	U
Highway-rail grade crossing	17	7	12	26	21	20	13	24	21	29	U
Transit	257	257	263	260	278	275	254	256	213	219	U
Waterborne	1,016	906	989	1,033	928	888	828	886	830	769	U
Commercial vessel-related	53	55	48	69	58	53	53	62	53	36	U
Not related to vessel	134	142	120	149	136	134	94	74	74	57	U
Recreational boating	829	709	821	815	734	701	681	750	703	676	U

KEY: U = data are not available.

NOTES: The actual number of deaths for passengers on trains from 1995-2005 was: 1995 (0), 1996 (12), 1997 (6), 1998 (4), 1999 (14), 2000 (4), 2001 (3), 2002 (7), 2003 (3), 2004 (3), 2005 (16).

Caution is needed in comparing fatalities across modes because of different definitions. In particular, rail and transit fatalities include incident-related (as distinct from accident-related) fatalities, such as fatalities from falls in transit stations or railroad employee fatalities from a fire in a workshed, while fatalities at airports not caused by moving aircraft or fatalities from accidents in automobile repair shops are not counted.

The Federal Railroad Administration defines a grade crossing as a location where a public highway, road, street, or private roadway, including associated sidewalks and paths-ways, crosses one or more railroad tracks at grade. The Federal Transit Administration defines two types of grade crossings: (1) At grade, mixed, and cross traffic crossings, meaning railway right-of-way over which other traffic moving in the same direction or other cross directions may pass. This includes city street right-of-way; (2) At grade with cross traffic crossings, meaning railway right-of-way over which no other traffic may pass, except to cross at grade-level crossings. This can include median strip rights-of-way with grade level crossings at intersecting streets.

SOURCES: Various sources, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics 2006*, table 2-1 and table 2-35, available at <http://www.bts.gov/>, as of August 2006.

TABLE J-2 Distribution of Transportation Fatalities: 2004

	Number of fatalities	Percentage of all transportation fatalities
Passenger-car occupants	19,091	42.61
Light-truck occupants	12,602	28.13
Pedestrians struck by highway vehicles	4,641	10.36
Motorcyclists	4,008	8.95
Heavy-truck occupants	761	1.70
Pedalcyclists struck by motor vehicle	725	1.62
Recreational boating	676	1.51
Other and unknown motor vehicle occupants	639	1.43
General aviation	558	1.25
Railroad trespassers (excluding grade crossing)	478	1.07
Other nonoccupants struck by motor vehicles	128	0.29
Grade crossings, not including motor vehicles	83	0.19
Air taxi	64	0.14
Heavy rail transit	59	0.13
Waterborne, not related to vessel casualties	57	0.13
Bus occupants	41	0.09
Waterborne, commercial vessel-related	36	0.08
Private grade crossings, with motor vehicles	33	0.07
Railroad employees, contractors, and volunteers on duty	25	0.06
Light rail transit	22	0.05
Railroad-related, not otherwise specified	20	0.04
Gas transmission and distribution pipeline	18	0.04
Transit buses, fatalities not related to accidents	16	0.04
Air carriers	14	0.03
Hazardous liquid pipeline	5	0.01
Passengers on railroad trains	3	0.01
Total Fatalities	44,803	
Other counts, redundant with above		
Large-truck occupants and nonoccupants	5,190	
Public grade crossings, with motor vehicles	252	
Commuter rail	86	
Transit buses, accident-related fatalities	61	
Outside planes in crashes	1	

NOTES: See Table J-1 for detailed notes.

SOURCES: Various sources, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics 2006*, table 2-4, available at <http://www.bts.gov/>, as of August 2006.

TABLE J-3 Injured Persons by Transportation Mode: 1995–2005

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Air	452	467	417	369	406	357	368	335	365	304	306
U.S. air carrier	25	77	43	30	67	29	19	22	29	21	13
Commuter carrier	17	2	1	2	2	7	4	0	1	0	0
On-demand air taxi	14	22	23	10	15	12	24	16	12	17	23
General aviation	396	366	350	327	322	309	321	297	323	266	270
Highway	3,465,000	3,483,000	3,348,000	3,192,000	3,236,000	3,189,000	3,033,000	2,926,000	2,889,000	2,788,000	2,699,000
Passenger car occupants	2,469,000	2,458,000	2,341,000	2,201,000	2,138,000	2,052,000	1,927,000	1,805,000	1,756,000	1,643,000	1,573,000
Motorcyclists	57,000	55,000	53,000	49,000	50,000	58,000	60,000	65,000	67,000	76,000	87,000
Truck occupants, light	722,000	761,000	755,000	763,000	847,000	887,000	861,000	879,000	889,000	900,000	872,000
Truck occupants, large	30,000	33,000	31,000	29,000	33,000	31,000	29,000	26,000	27,000	27,000	27,000
Bus occupants	19,000	20,000	17,000	16,000	22,000	18,000	15,000	19,000	18,000	16,000	11,000
Pedestrians	86,000	82,000	77,000	69,000	85,000	78,000	78,000	71,000	70,000	68,000	64,000
Pedalcyclists	67,000	58,000	58,000	53,000	51,000	51,000	45,000	48,000	46,000	41,000	45,000
Other	14,000	15,000	17,000	12,000	10,000	15,000	17,000	13,000	15,000	16,000	18,000
Pipeline	64	127	77	81	108	81	61	49	71	60	47
Hazardous liquid pipeline	11	13	5	6	20	4	10	0	5	16	2
Gas pipeline	53	114	72	75	88	77	51	49	66	44	45
Railroad	14,440	12,558	11,767	11,459	11,700	11,643	10,985	11,103	9,214	9,102	9,145
Highway-rail grade crossing	1,894	1,610	1,540	1,303	1,396	1,219	1,157	999	1,033	1,089	1,005
Railroad	12,546	10,948	10,227	10,156	10,304	10,424	9,828	10,104	8,181	8,013	8,140
Transit	57,196	55,288	56,132	55,990	55,325	56,697	53,945	19,260	18,235	18,982	U
Highway-rail grade crossing	195	184	126	58	159	123	74	108	117	153	U
Transit	57,001	55,104	56,006	55,932	55,166	56,574	53,871	19,152	18,118	18,829	U
Waterborne	6,165	6,064	5,737	5,321	4,992	5,112	5,008	4,856	4,666	4,066	U
Vessel-related	154	254	120	130	152	150	210	192	227	198	U
Not related to vessel casualties	1,870	1,368	1,062	579	525	607	524	602	551	505	U
Recreational boating	4,141	4,442	4,555	4,612	4,315	4,355	4,274	4,062	3,888	3,363	U

KEY: U = data are not available.

NOTES: Air injuries include all injuries classified as serious. U.S. air carriers includes all carriers who operate under 14 CFR 121, all scheduled and nonscheduled service. Since Mar. 20, 1997, 14 CFR 121 includes only aircraft with 10 or more seats formerly operated under 14 CFR 135. This change makes it difficult to compare pre-1997 data for 14 CFR 121 and 14 CFR 135 with more recent years' data. Commuter carriers include all scheduled service operating under 14 CFR 135. Since Mar. 20, 1997, 14 CFR 121 includes only aircraft with 10 or more seats formerly operated under 14 CFR 135. This change makes it difficult to compare pre-1997 data for 14 CFR 121 and 14 CFR 135 with more recent years' data. On-demand air taxi includes all nonscheduled service operating under 14 CFR 135. General aviation includes all operations other than those operating under 14 CFR 121 and 14 CFR 135.

(continued on next page)

TABLE J-3 Injured Persons by Transportation Mode: 1995–2005 (continued)

The motor vehicle injury data in this table come from the U.S. Department of Transportation, National Highway Traffic Safety Administration's General Estimates System (GES). The data from GES are obtained from a nationally representative probability sample selected from all police-reported crashes. The GES sample includes only crashes where a police accident report was completed and the crash resulted in property damage, injury, or death. The resulting figures do not take into account crashes that were not reported to the police or did not result in property damage.

Large trucks are defined as trucks over 10,000 pounds gross vehicle weight rating, including single-unit trucks and truck tractors. *Light trucks* are defined as trucks of 10,000 pounds gross vehicle weight rating or less, including pickups, vans, truck-based station wagons, and utility vehicles.

Other highway includes occupants of other unknown vehicle types and other nonmotorists.

Railroad includes Amtrak. Figures include those injuries resulting from train accidents, train incidents, and nontrain incidents. Injury figures also include occupational illness.

Injuries occurring at highway-rail crossings, listed under railroad, result from freight and passenger rail operations including commuter rail. Highway-rail grade crossing injuries, except train occupants, are counted under highway.

The Federal Railroad Administration defines a grade crossing as a location where a public highway, road, street, or private roadway, including associated sidewalks and pathways, crosses one or more railroad tracks at grade. The Federal Transit Administration defines two types of grade crossings: (1) At grade, mixed, and cross traffic crossings, meaning railway right-of-way over which other traffic moving in the same direction or other cross directions may pass. This includes city street right-of-way; (2) At grade with cross traffic crossings, meaning railway right-of-way over which no other traffic may pass, except to cross at grade-level crossings. This can include median strip rights-of-way with grade level crossings at intersecting streets.

Transit includes motor bus, commuter rail, heavy rail, light rail, demand response, van pool, and automated guideway. Transit injuries include those resulting from all reportable incidents, not just from accidents. Directly Operated (DO) modes only. The drop in the number of injuries in 2002 is due largely to a change in definitions by the Federal Transit Administration. Only injuries requiring immediate medical treatment away from the scene now qualify as reportable. Previously, any injury was reportable.

Injuries occurring at *highway-rail crossings*, listed under transit, result from operations of public transit rail modes including commuter rail. Data for injuries at light rail crossings are: 1995 (179); 1996 (171); 1997 (92); 1998 (42); 1999 (148); 2000 (111); 2001 (54); 2002 (76); 2003 (68); 2004 (76).

Vessel-related injuries include those involving damage to vessels, such as collisions or groundings. Injuries *not related to vessel casualties* include those from falls overboard or from accidents involving onboard equipment.

Vessel-related and *Not related to vessel casualties* data for 1995-1997 come from the Marine Safety Management Information System. Between 1998 and 2001 the U.S. Coast Guard phased in a new computer system to track safety data, the Marine Information for Safety and Law Enforcement System. During that period data come from combining entries in the Marine Safety Management Information System with entries in the Marine Information for Safety and Law Enforcement System. Data for 2002 and later come from the Marine Information for Safety and Law Enforcement System. Data for prior years come from other sources and may not be directly comparable.

SOURCES: Various sources, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics 2006*, table 2-2, available at <http://www.bts.gov/>, as of September 2006.

TABLE J-4 Transportation Accidents by Mode: 1994–2004

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Air	2,140	2,179	2,046	1,991	2,040	2,043	1,985	1,852	1,823	1,872	1,715
U.S. air carrier	23	36	37	49	50	51	56	46	41	54	28
Commuter carrier	10	12	11	16	8	13	12	7	7	2	5
On-demand air taxi	85	75	90	82	77	74	80	72	60	75	68
General aviation	2,022	2,056	1,908	1,844	1,905	1,905	1,837	1,727	1,715	1,741	1,614
Highway	6,496,000	6,699,000	6,770,000	6,624,000	6,335,000	6,279,000	6,394,000	6,323,000	6,316,000	6,328,000	U
Passenger car	5,401,164	5,593,685	5,598,699	5,423,286	5,146,124	4,915,734	4,926,243	4,831,842	4,802,056	4,746,307	U
Motorcycle	68,752	66,354	66,224	61,451	54,477	57,322	68,783	73,342	76,004	79,081	U
Truck, light	2,573,701	2,749,596	2,880,782	2,900,896	2,866,729	3,079,617	3,207,738	3,254,105	3,272,326	3,345,165	U
Truck, large	444,697	362,883	378,335	421,377	391,807	452,444	437,861	409,372	416,476	436,161	399,156
Bus	55,818	58,847	57,185	53,376	53,385	62,591	55,594	54,264	57,958	57,672	U
Pipeline	467	349	381	346	389	339	380	341	331	369	442
Hazardous liquid pipeline	245	188	194	171	153	167	146	130	147	131	144
Gas pipeline	222	161	187	175	236	172	234	211	184	238	298
Railroad	7,483	7,092	6,700	6,262	6,083	6,257	6,485	6,260	5,815	5,977	6,445
Highway-rail grade crossing	4,979	4,633	4,257	3,865	3,508	3,489	3,502	3,237	3,077	2,977	3,075
Railroad	2,504	2,459	2,443	2,397	2,575	2,768	2,983	3,023	2,738	3,000	3,370
Transit	29,972	25,683	25,166	24,924	23,937	23,310	24,261	23,891	13,968	7,793	U
Highway-rail grade crossing	N	127	134	119	106	140	148	101	190	125	U
Transit	N	25,556	25,032	24,805	23,831	23,170	24,113	23,790	13,778	7,668	U
Waterborne	13,649	13,368	13,286	13,551	13,828	13,457	13,143	11,377	11,713	10,601	U
Vessel-related	6,743	5,349	5,260	5,504	5,767	5,526	5,403	4,958	6,008	5,163	4,962
Recreational boating	6,906	8,019	8,026	8,047	8,061	7,931	7,740	6,419	5,705	5,438	U

KEY: U = data are not available.

NOTES: U.S. air carriers includes all carriers who operate under 14 CFR 121, all scheduled and nonscheduled service. Since Mar. 20, 1997, 14 CFR 121 includes only aircraft with 10 or more seats formerly operated under 14 CFR 135. This change makes it difficult to compare pre-1997 data for 14 CFR 121 and 14 CFR 135 with more recent years' data. Commuter carriers include all scheduled service operating under 14 CFR 135. Since Mar. 20, 1997, 14 CFR 121 includes only aircraft with 10 or more seats formerly operated under 14 CFR 135. This change makes it difficult to compare pre-1997 data for 14 CFR 121 and 14 CFR 135 with more recent years' data. On-demand air taxi includes all nonscheduled service operating under 14 CFR 135. General aviation includes all operations other than those operating under 14 CFR 121 and 14 CFR 135.

For Highway totals the U.S. Department of Transportation, National Highway Traffic Safety Administration uses the term "crash" instead of accident in its highway safety data. Highway crashes often involve more than one motor vehicle, hence "total highway crashes" is smaller than the sum of the components. Estimates of highway crashes are rounded to the nearest thousand in the source document.

(continued on next page)

TABLE J-4 Transportation Accidents by Mode: 1994–2004 (continued)

The motor vehicle crash data in this table come from the U.S. Department of Transportation, National Highway Traffic Safety Administrations' General Estimates System (GES). GES data are obtained from a nationally representative probability sample selected from all police-reported crashes. The GES sample includes only crashes where a police accident report was completed and the crash resulted in property damage, injury, or death. The resulting figures do not take into account crashes that were not reported to the police or did not result in property damage.

Large trucks are defined as trucks over 10,000 pounds gross vehicle weight rating, including single-unit trucks and truck tractors. Light trucks are defined as trucks of 10,000 pounds gross vehicle weight rating or less, including pickups, vans, truck-based station wagons, and utility vehicles.

Railroad total includes Amtrak. Accidents and incidents resulting from freight and passenger rail operations including commuter rail. *Highway-rail* grade crossing total includes accidents and incidents occurring at highway-rail crossings resulting from freight and passenger rail operations including commuter rail. *Railroad* includes only train accidents.

The Federal Railroad Administration defines a grade crossing as a location where a public highway, road, street, or private roadway, including associated sidewalks and pathways, crosses one or more railroad tracks at grade. The Federal Transit Administration defines two types of grade crossings: (1) At grade, mixed, and cross traffic crossings, meaning railway right-of-way over which other traffic moving in the same direction or other cross directions may pass. This includes city street right-of-way; (2) At grade with cross traffic crossings, meaning railway right-of-way over which no other traffic may pass, except to cross at grade-level crossings. This can include median strip rights-of-way with grade level crossings at intersecting streets.

Transit accident figures include collisions with vehicles, objects, and people, derailments / vehicles going off the road. Accident figures do not include fires and personal casualties. The drop in the number of accidents in 2002 is due largely to a change in definitions by the Federal Transit Administration, particularly the definition of injuries. Only injuries requiring immediate medical treatment away from the scene now qualify as reportable. Previously, any injury was reportable. Directly Operated (DO) modes only. Highway-rail grade crossing for transit includes accidents occurring at highway-rail grade crossings resulting from operations of public transit rail modes including commuter rail. Data for light rail crossings are: 1995 (98); 1996 (97); 1997 (66); 1998 (66); 1999 (103); 2000 (106); 2001 (54); 2002 (112); 2003 (66); 2004 (107). *Transit only* includes accidents occurring at highway-rail grade crossings resulting from operations of public transit rail modes excluding commuter rail.

SOURCES: Various sources, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics 2006*, table 2-3, available at <http://www.bts.gov/>, as of August 2006.

TABLE J-5 Transportation-Related Occupational Fatalities: 1995–2005

	All occupational fatalities	Transportation-related fatalities, total	Highway	Nonhighway	Aircraft	Pedestrian struck by vehicle	Water vehicle	Railway
1995	6,275	2,587	1,346	387	283	388	87	82
1996	6,202	2,601	1,346	374	324	353	119	74
1997	6,238	2,605	1,393	377	261	367	109	93
1998	6,055	2,645	1,442	388	224	413	112	60
1999	6,054	2,618	1,496	352	228	377	102	56
2000	5,920	2,573	1,365	399	280	370	84	71
2001	5,915	2,524	1,409	326	247	383	90	62
2002	5,534	2,385	1,373	323	194	356	71	64
2003	5,575	2,364	1,353	347	211	337	69	43
2004	5,764	2,490	1,398	338	231	378	91	50
2005	5,702	2,480	1,428	340	147	390	86	84

NOTES: Numbers may not add to totals because transportation categories may include subcategories not shown separately. *Highway* includes collisions between vehicles/mobile equipment moving in the same or opposite directions, such as in an intersection; between moving and standing vehicles/mobile equipment at the side of a roadway; or a vehicle striking a stationary object. Also includes noncollisions, e.g., jack-knifed or overturned vehicle/mobile equipment—no collision; ran off highway—no collision; struck by shifting load; sudden start or stop; not elsewhere classified. *Nonhighway* refers to farms and industrial premises. Includes collisions between vehicles/mobile equipment; vehicles/mobile equipment striking a stationary object. Also includes noncollisions such as a fall from a moving vehicle/mobile equipment, fall from and struck by vehicle/mobile equipment, overturned vehicle/mobile equipment, and loss of control of vehicle/mobile equipment. *Pedestrian struck by vehicle* includes worker struck by vehicle/mobile equipment in roadway, on side of road, in a parking lot, or nonroad area.

Water vehicle includes collisions, explosions, fires, fall from or on ship/boat, and sinking/capsized water vehicles involved in transportation. Does not include fishing boats. *Railway* includes collisions between railway vehicles, railway vehicle and other vehicle, railway vehicle and other object, and derailment.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, Internet site <http://www.bls.gov/> as of August 2006.

TABLE J-6 Airline Passenger Screening Results by Type of Weapons Detected, Persons Arrested, and Bomb Threats Received: 1991–2001

	Persons screened (millions)	TOTAL firearms detected	Firearms, handguns	Firearms, long guns	Persons arrested		Bomb threats received	
					Carrying firearms / explosives	Giving false information	Against airports	Against aircraft
1991	1,015	1,644	1,597	47	893	28	498	388
1992	1,111	2,608	2,503	105	1,282	13	188	215
1993	1,150	2,798	2,707	91	1,354	31	304	248
1994	1,261	2,994	2,860	134	1,433	35	250	218
1995	1,263	2,390	2,230	160	1,194	68	346	327
1996	1,497	2,155	1,999	156	999	131	N	N
1997	1,660	2,067	1,905	162	924	72	N	N
1998	1,667	1,515	1,401	114	660	86	N	N
1999	1,767	1,552	1,421	131	633	58	N	N
2000	1,812	1,937	1,643	294	600	61	N	N
2001	U	U	U	U	U	U	N	N

KEY: U = data are unavailable; N= data are nonexistent.

NOTES: Includes operators with a U.S. Department of Transportation, Federal Aviation Administration operating certificate engaged in scheduled passenger or public charter passenger operations and airports at which these operations are conducted. Beginning in 1996, the Office of Civil Aviation Security Policy and Planning stopped keeping records of bomb threats received due to inconsistent reporting. The reporting of other dangerous articles was discontinued in 1992 and reporting of explosive/incendiary devices was discontinued in 1994 for the same reasons.

SOURCES: Persons screened, type of weapon detected, and persons arrested—U.S. Department of Transportation, Federal Aviation Administration, Office of Civil Aviation Security Policy and Planning, *Annual Report to Congress on Civil Aviation Security* (Washington, DC: annual issues), and personal communications, May 27, 1999, March 29, 2000, and August 7, 2001.

Bomb threats received—U.S. Department of Transportation, Federal Aviation Administration, *Criminal Acts Against Civil Aviation* (Washington, DC: annual issues).

TABLE J-7 Prohibited Items Intercepted at Airport Screening Checkpoints: 2002–2005

	2002	2003	2004	2005
Total prohibited items	3,775,345	6,114,612	7,089,599	15,909,141
Box cutters	32,788	20,991	22,350	21,319
Knives	1,036,697	1,961,849	2,058,652	1,822,888
Other cutting instruments	1,846,207	2,973,413	3,567,731	3,276,941
Firearms	927	683	650	2,217
Clubs	11,131	25,139	28,813	20,531
Incendiaries	79,341	494,123	693,649	407,086
Other	768,254	638,414	717,754	10,358,159

NOTES: 2002 data are April through December. Other cutting instruments includes scissors, hatchets, swords, sabers, meat cleavers, ice axes, and picks. Knives includes any length and type except round-bladed, butter, and plastic cutlery. Clubs includes martial arts items, baseball bats, night sticks, hammers, pool cues, and billy clubs. Firearms includes any weapon (including a starter gun) that is designed to or may readily be converted to expel a projectile by the action of an explosive, as well as spear guns, BB guns, flare pistols, compressed air guns, and stunning devices. Other refers to tools, self-defense items, compressed gas cylinders, bleach, and certain sporting goods. The jump in number of other prohibited items in 2005 is a result of the inclusion of lighters as prohibited items as of April 14, 2005.

SOURCE: U.S. Department of Homeland Security, Transportation Security Administration, Office of Transportation Security Policy, personal communication, November 2006.

Transportation and the Environment

TABLE K-1 Energy Consumption by the Transportation Sector: 1995–2005
Quadrillion Btu

	Energy consumption (all sectors)	Total transportation consumption	Transportation as percent of total energy consumption	Total primary consumption	Natural gas	Petroleum products	Electricity	Electrical system energy losses
1995	91.25	23.96	26.3	23.90	0.72	23.18	0.02	0.04
1996	94.26	24.51	26.0	24.46	0.74	23.72	0.02	0.04
1997	94.77	24.81	26.2	24.75	0.78	23.97	0.02	0.04
1998	95.19	25.36	26.6	25.30	0.67	24.64	0.02	0.04
1999	96.84	26.11	27.0	26.05	0.68	25.37	0.02	0.04
2000	98.96	26.70	27.0	26.64	0.67	25.97	0.02	0.04
2001	96.47	26.27	27.2	26.22	0.66	25.56	0.02	0.04
2002	97.87	26.85	27.4	26.79	0.70	26.08	0.02	0.04
2003	98.27	27.04	27.5	26.96	0.63	26.33	0.02	0.05
2004	100.41	27.92	27.8	27.84	0.61	27.23	0.02	0.05
2005	99.84	28.04	28.1	27.95	0.60	27.35	0.03	0.06

KEY: Btu = British thermal unit.

NOTES: *Total transportation consumption* is the sum of primary consumption, electricity, and electrical system energy losses categories. *Total primary consumption* is the sum of natural gas, and petroleum categories. *Natural gas* is consumed in the operation of pipelines, primarily in compressors, and small amounts consumed as vehicle fuel.

Petroleum products includes most nonutility use of fossil fuels to produce electricity and small amounts (about 0.1 quadrillion Btu per year since 1990) of renewable energy in the form of ethanol blended into motor gasoline.

Electrical system energy losses are incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

SOURCE: Various sources, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics 2006*, table 4-4, available at <http://www.bts.gov/>, as of August 2006.

TABLE K-2 Energy Consumption by Mode of Transportation: 1994–2004

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Trillion btu											
Air											
Certificated carriers	1,672	1,711	1,784	1,831	1,800	1,944	2,004	1,892	1,735	1,749	1,839
Jet fuel											
General aviation	32	35	35	35	37	42	40	33	33	33	33
Aviation gasoline	63	76	82	87	110	131	131	129	133	132	137
Jet fuel											
Highway											
Gasoline, diesel and other fuels	8,510	8,534	8,677	8,762	8,988	9,187	9,159	9,219	9,458	9,456	9,526
Passenger car and motorcycle	5,514	5,701	5,919	6,173	6,308	6,607	6,617	6,690	6,903	7,595	7,828
Other 2-axle 4-tire vehicle	1,253	1,278	1,305	1,328	946	1,300	1,326	1,341	1,290	1,110	1,158
Single-unit 2-axle 6-tire or more truck	2,587	2,743	2,801	2,816	3,489	3,403	3,560	3,538	3,673	3,303	3,427
Combination truck	134	134	137	142	144	159	154	142	139	134	132
Bus											
Transit											
Electricity	17	17	17	17	17	18	19	19	19	19	20
Motor fuel											
Diesel	94	94	96	99	103	106	109	103	100	99	101
Gasoline and other nondiesel fuels	8	8	8	7	7	6	6	6	7	6	7
Compressed natural gas	1	1	2	3	5	6	8	9	11	14	16
Rail, Class I (in freight service)											
Distillate / diesel fuel	462	483	496	496	497	515	513	515	517	531	563
Antrak											
Electricity	1	1	1	1	1	1	1	1	U	U	U
Distillate / diesel fuel	10	9	10	10	10	10	11	10	U	U	U
Water											
Residual fuel oil	806	881	853	750	841	874	960	810	726	580	702
Distillate / diesel fuel oil	304	324	345	357	360	336	314	284	288	307	297
Gasoline	109	133	124	123	120	137	141	124	135	138	126
Pipeline											
Natural gas	707	722	734	775	655	665	662	644	688	610	590

KEY: Btu = British thermal unit; U = data are unavailable.

NOTES: *Certificated carriers* are domestic operations only. *General aviation* includes fuel used in air taxi operations, but not commuter operations.

The following conversion rates were used:

Jet fuel = 135,000 Btu/gallon

Aviation gasoline = 120,200 Btu/gallon

Automotive gasoline = 125,000 Btu/gallon

Diesel motor fuel = 138,700 Btu/gallon

Electricity 1kWh = 3,412 Btu, negating electrical system losses. To include approximate electrical system losses, multiply this conversion factor by 3.

SOURCE: Various sources, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics 2006*, table 4-6, available at <http://www.bts.gov/>, as of October 2006.

FIGURE K-3 U.S. Petroleum Use by Sector: 2005
Percentage of total

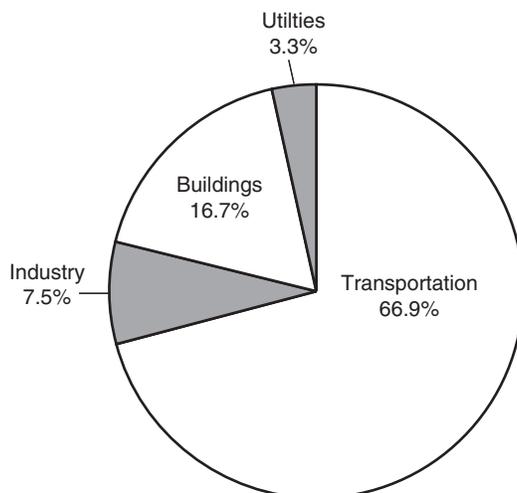


TABLE K-3 U.S. Petroleum Use by Sector: 1995–2005
Millions of barrels per day

	Transportation	Industry	Buildings	Utilities	Total	Transportation as a percentage of total
1995	11.7	4.6	1.1	0.3	17.7	65.8
1996	11.9	4.8	1.2	0.4	18.3	65.1
1997	12.1	5.0	1.2	0.4	18.6	65.0
1998	12.4	4.8	1.1	0.6	18.9	65.7
1999	12.8	5.0	1.2	0.5	19.5	65.4
2000	13.0	4.9	1.3	0.5	19.7	66.1
2001	12.9	4.9	1.3	0.6	19.6	65.8
2002	13.2	4.9	1.2	0.4	19.8	66.8
2003	13.3	4.9	1.2	0.5	20.0	66.6
2004	13.7	5.2	1.3	0.5	20.7	66.3
2005	13.8	5.0	1.3	0.5	20.7	66.9

NOTES: 2003-2005 data are preliminary, except for utilities. Data may not add to total because of independent rounding.

SOURCE: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 2005*, table 5.13a-d, available at <http://www.eia.doe.gov/>, as of September 2006.

TABLE K-4 Carbon Dioxide Emissions by Mode: 1994–2004

Teragrams of carbon dioxide equivalent

	Passenger cars	Light-duty trucks	All other trucks	Buses	Aircraft	Ships and boats	Locomotives	Other	Total, all modes	International bunker fuels
1994	596.3	386.3	258.8	9.0	176.1	49.9	40.4	50.6	1,567.5	94.2
1995	599.0	401.1	268.5	8.9	171.8	51.9	41.8	51.1	1,594.1	98.0
1996	604.7	414.0	277.3	9.2	180.1	49.5	42.5	51.4	1,628.8	99.3
1997	601.8	426.7	298.0	9.7	179.0	34.0	42.7	54.2	1,646.2	106.1
1998	621.5	437.3	306.5	9.8	181.3	27.3	43.0	48.8	1,675.6	103.3
1999	631.2	455.0	322.4	11.0	186.8	37.5	44.6	49.4	1,737.8	102.6
2000	633.4	458.3	337.9	10.8	193.2	55.1	44.6	48.9	1,782.3	102.2
2001	636.5	462.2	337.0	9.9	183.5	48.1	44.8	46.2	1,768.1	98.5
2002	651.6	474.8	351.0	9.5	174.9	57.0	45.2	49.0	1,813.1	89.5
2003	631.3	509.6	347.3	10.3	171.8	49.7	47.1	48.4	1,815.5	84.1
2004	636.4	526.0	365.3	10.3	179.6	54.4	49.8	48.7	1,870.4	94.5

KEY: 1 teragram = 1 trillion grams.

NOTES: *Other* carbon dioxide emissions are from motorcycles, pipelines, and lubricants. *International bunker fuel* emissions (not included in the total) result from the combustion of fuels purchased in the United States but used for international aviation and maritime transportation. Thus, *aircraft* and *ships and boats* data included in U.S. total emissions involve only domestic activities of these modes as do all other data shown. *Aircraft* emissions consist of emissions from all jet fuel (less bunker fuels) and aviation gas consumption. Alternative-fuel vehicle emissions are allocated to the specific vehicle types in which they were classified (i.e., passenger cars, light-duty trucks, and other trucks and buses).

SOURCE: U.S. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks* (Washington, DC: Annual Issues), table 2-17.

TABLE K-5 Transportation Air Pollutant Emissions: 1992–2002
Millions of short tons

	Carbon monoxide			Nitrogen oxides		
	All sources	Transportation, total	Transportation (percent)	All sources	Transportation, total	Transportation (percent)
1992	140.90	103.89	74	25.26	11.45	45
1993	135.90	98.67	73	25.36	11.33	45
1994	133.56	93.44	70	25.35	11.22	44
1995	126.78	88.22	70	24.96	11.10	44
1996	128.86	82.99	64	24.79	10.99	44
1997	117.91	80.22	68	24.71	11.02	45
1998	115.38	77.64	67	24.35	10.82	44
1999	114.54	73.64	64	22.84	10.36	45
2000	114.47	72.49	63	22.60	10.57	47
2001	106.30	67.99	64	21.55	9.95	46
2002	112.05	64.66	58	21.10	9.44	45

	Volatile organic compounds			Sulfur dioxide		
	All sources	Transportation, total	Transportation (percent)	All sources	Transportation, total	Transportation (percent)
1992	23.07	9.55	41	22.08	0.67	3
1993	22.73	9.05	40	21.77	0.63	3
1994	22.57	8.55	38	21.35	0.60	3
1995	22.04	8.05	37	18.62	0.56	3
1996	20.87	7.56	36	18.39	0.53	3
1997	19.53	7.33	38	18.84	0.54	3
1998	18.78	7.21	38	18.94	0.53	3
1999	18.78	7.10	38	17.55	0.54	3
2000	17.51	6.68	38	16.35	0.49	3
2001	17.12	6.31	37	15.93	0.47	3
2002	16.54	5.93	36	15.35	0.49	3

SOURCE: U.S. Environmental Protection Agency, Clearinghouse for Inventories and Emissions Factors (CHIEF), *Current Emission Trends Summaries*, Internet website <http://www.epa.gov/ttn/chieftrends/> as of Dec. 21, 2004.

TABLE K-6 Energy Intensity by Passenger Mode: 1994–2004
Btu per passenger-mile

	Passenger cars	Light-duty trucks	Transit Buses	Aircraft (Domestic)	Amtrak
1994	3,771	4,345	4,162	4,444	1,935
1995	3,721	4,538	4,155	4,382	1,838
1996	3,688	4,541	4,196	4,183	2,153
1997	3,657	4,564	4,228	4,166	2,200
1998	3,637	4,569	4,133	4,123	2,138
1999	3,672	4,612	4,044	4,049	2,107
2000	3,589	4,509	4,147	3,883	2,134
2001	3,597	3,985	3,698	3,890	2,100
2002	3,600	4,121	3,550	3,596	U
2003	3,570	4,452	3,496	3,463	U
2004	3,527	4,452	U	3,297	U

KEY: U= data are unavailable.

SOURCE: Various sources, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics 2006*, table 4-20, available at <http://www.bts.gov/>, as of September 2006.

Extent and Condition

TABLE L-1 System Mileage Within the United States: 1995–2005

Miles

	Highway	Rail		Transit rail			Navigable waterways	Pipeline	
		Class I	Amtrak	Commuter rail	Heavy rail	Light rail		Hazardous liquid	Gas
1995	3,912,226	108,264	24,000	4,160	1,458	568	26,000	153,549	1,331,676
1996	3,919,652	105,779	25,000	3,682	1,478	638	26,000	154,843	1,314,663
1997	3,945,872	102,128	25,000	4,417	1,527	659	26,000	155,038	1,331,775
1998	3,906,290	100,570	22,000	5,172	1,527	676	26,000	163,567	1,372,644
1999	3,917,243	99,430	23,000	5,191	1,540	802	26,000	156,786	1,364,336
2000	3,936,222	99,250	23,000	5,209	1,558	834	26,000	154,733	1,377,320
2001	3,948,335	97,817	23,000	5,209	1,572	897	26,000	158,489	1,413,555
2002	3,966,485	100,125	23,000	6,831	1,572	960	26,000	161,141	1,462,512
2003	3,974,107	99,126	22,675	6,809	1,597	996	26,000	159,889	1,431,952
2004	3,981,512	97,662	22,256	6,875	1,596	1,187	26,000	161,926	1,482,281
2005	3,995,635	95,830	22,007	U	U	U	U	U	U

KEY: U = data are unavailable.

NOTES: *Highway* includes all public road and street mileage in the 50 states and the District of Columbia. Beginning in 1998, approximately 43,000 miles of Bureau of Land Management Roads are excluded. *Class I* rail data represent miles of road owned (aggregate length of road, excluding yard tracks, sidings, and parallel lines). Portions of Class I freight railroads, Amtrak, and commuter rail networks share common trackage. *Amtrak* data represent miles of road operated. *Transit* system length is measured in directional route-miles. Directional route-miles is the distance in each direction over which public transportation vehicles travel while in revenue service. Directional route-miles are computed with regard to direction of service, but without regard to the number of traffic lanes or rail tracks existing in the right-of-way. Beginning in 2002, directional route-mileage data for the commuter and light rail modes include purchased transportation.

Navigable waterways are estimated sums of all domestic waterways which include rivers, bays, channels, and the inner route of the Southeast Alaskan Islands, but does not include the Great Lakes or deep ocean traffic. The Waterborne Commerce Statistics Center monitored 12,612 miles as commercially significant inland shallow-draft waterways in 2001. *Hazardous liquid* pipeline includes trunk and gathering lines for crude-oil pipeline. *Gas* pipeline mileage includes transmission, gathering and distribution.

SOURCES: Various sources, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics 2006*, table 1-1, available at <http://www.bts.gov/>, as of July 2006. **Pipeline** — personal communication, December 2006.

TABLE L-2 Number of Air Carriers, Railroads, Interstate Motor Carriers, Marine Vessel Operators and Pipeline Operators: 1995–2005

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Air carriers	96	92	92	89	94	92	79	81	83	86	89
Major air carriers	11	15	14	14	15	15	15	14	13	14	17
Other air carriers	85	77	78	75	75	77	64	67	70	72	72
Railroads	541	553	550	559	555	560	571	552	549	556	560
Class I railroads	11	10	9	9	9	8	8	7	7	7	7
Regional	30	32	34	35	36	35	34	31	32	31	30
Local	500	511	507	515	510	517	529	514	510	518	523
Interstate motor carriers	346,000	379,000	417,000	477,486	517,297	560,393	592,909	600,104	674,314	U	U
Marine vessel operators	1,381	1,348	1,311	1,235	1,174	1,114	1,063	877	798	767	U
Pipeline operators	2,387	2,346	2,301	2,260	2,260	2,172	2,128	2,171	2,196	2,216	2,166
Hazardous liquid	217	225	237	243	239	237	232	222	235	282	253
Natural gas transmission	975	971	957	889	885	844	814	899	821	907	929
Natural gas distribution	1,444	1,397	1,365	1,375	1,393	1,363	1,341	1,331	1,309	1,318	1,291

KEY: U = data are unavailable.

NOTES: *Air carrier* groups are categorized based on their annual operating revenues as major, national, large regional, and medium regional. The thresholds were last adjusted July 1, 1999, and the threshold for major air carriers is currently \$1 billion. The other air carrier category contains all national, large regional, and medium regional air carriers. Beginning in 2003 regional air carriers are not required to report financial data which may result in under reporting of "Other carriers" in this table. *Interstate motor carrier* figures are for the fiscal year, October through September. The Federal Motor Carrier Safety Administration deletes motor carriers from the Motor Carrier Management Information System (MCMIS) when they receive an official notice of a change in status. This most often occurs when a safety audit or compliance review is attempted. As a result, inactive carriers may be included in the MCMIS. There is some overlap among the operators for the pipeline modes so the total number of pipeline operators is lower than the sum for the three pipeline modes.

SOURCE: Various sources, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics 2006*, table 1-2, available at <http://www.bts.gov/>, as of July 2006.

TABLE L-3 Number of U.S. Airports: 1995–2005

	TOTAL airports	Public use, total	Runways (Percent)		Private use, total	Runways (Percent)		Certificated, total	Civil	Military
			Lighted	Paved		Lighted	Paved			
1995	18,224	5,415	74.3	73.3	12,809	6.4	33.0	667	572	95
1996	18,292	5,389	74.5	73.7	12,903	6.4	32.9	671	577	94
1997	18,345	5,357	74.6	74.0	12,988	6.4	33.0	660	566	94
1998	18,770	5,352	74.8	74.2	13,418	6.3	33.2	660	566	94
1999	19,098	5,324	76.1	74.2	13,774	6.7	31.8	655	565	90
2000	19,281	5,317	75.9	74.3	13,964	7.2	32.0	651	563	88
2001	19,356	5,294	76.2	74.6	14,062	8.0	32.4	635	560	75
2002	19,572	5,286	76.1	74.5	14,286	8.3	32.4	633	558	75
2003	19,581	5,286	76.2	74.5	14,295	8.6	32.7	628	555	73
2004	19,820	5,288	76.3	74.5	14,532	9.0	32.8	599	542	57
2005	19,854	5,270	76.7	74.8	14,584	9.2	33.1	575	U	U

KEY: U = Data are unavailable.

NOTES: Includes civil and joint-use civil-military airports, heliports, STOL (short takeoff and landing) ports, and seaplane bases in the United States and its territories. Publicly owned facilities are open for public use with no prior authorization or permission. *Certificated* airports serve air-carrier operations with aircraft seating more than 9 passengers.

SOURCE: U.S. Department of Transportation, Federal Aviation Administration, *Administrator's Fact Book (various editions)*, available at <http://www.faa.gov/>, as of August 2006.

TABLE L-4 Number of Stations Served by Amtrak and Rail Transit: FY 1995–2005

	Amtrak	Rail transit
1995	530	2,382
1996	542	2,325
1997	516	2,391
1998	508	2,524
1999	510	2,567
2000	515	2,595
2001	512	2,621
2002	515	2,784
2003	526	2,797
2004	526	2,909
2005	527	U

KEY: U = data are unavailable.

NOTES: Rail transit is the sum of commuter rail, heavy rail, and light rail. In several large urban areas, Amtrak and commuter rail stations are shared. Starting in 2001 stations serving the Alaska Railroad are included in the rail transit total. Rail transit data for 2002 and later years include service both directly operated and purchased. Prior to 2002, data only include directly operated service.

SOURCES: Amtrak: 1984-2002—Amtrak, *Amtrak Annual Report*, Statistical Appendix (Washington, DC: annual issues). **2003-2004**—Ibid, *State Fact Sheets*, available at <http://www.amtrak.com/> as of November 11, 2005. **2005**—Ibid, *State Fact Sheets*, available at <http://www.amtrak.com/> as of March 22, 2006.

Rail transit: U.S. Department of Transportation, Federal Transit Administration, *National Transit Database 2004* (Washington, DC: 2005), table 21 and similar tables in earlier editions.

TABLE L-5 U.S. Waterway Facilities: 2000–2005

	Commercial facilities	Great lakes	Inland	Ocean	Locks
2000	9,307	763	2,376	6,168	230
2001	9,309	754	2,367	6,188	230
2002	9,188	754	2,367	6,067	230
2003	9,164	754	2,361	6,049	230
2004	9,172	754	2,361	6,057	212
2005	9,133	754	2,320	6,059	212

NOTE: Commercial facilities is the sum of Great Lakes, inland, and ocean.

SOURCE: U.S. Army Corps of Engineers, *The U.S. Waterway System—Transportation Facts* (Alexandria, VA: annual releases), Geographic Distribution of U.S. Waterway Facilities.

TABLE L-6 Number of U.S. Aircraft, Vehicles, and Other Conveyances: 1994-2004

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Air											
Air carrier	7,370	7,411	7,478	7,616	8,111	8,228	8,055	8,497	8,194	8,176	8,186
General aviation (active fleet)	172,935	188,089	191,129	192,414	204,710	219,464	217,533	211,446	211,244	209,708	U
Highway, total (registered vehicles)	201,801,921	205,427,212	210,441,249	211,580,033	215,496,003	220,461,056	225,821,241	235,331,382	234,624,135	236,760,033	243,023,485
Passenger car	127,883,469	128,386,775	129,728,341	129,748,704	131,838,538	132,432,044	133,621,420	137,633,467	135,920,677	135,669,897	136,430,651
Motorcycle	3,756,555	3,897,191	3,871,599	3,826,373	3,879,450	4,152,433	4,346,068	4,903,056	5,004,156	5,370,035	5,780,870
Other 2-axle 4-tire vehicle	62,903,589	65,738,322	69,133,913	70,224,082	71,330,205	75,356,376	79,084,979	84,187,636	85,011,305	87,186,663	91,845,327
Truck, single-unit 2-axle 6-tire or more	4,906,385	5,023,670	5,266,029	5,293,358	5,734,925	5,762,864	5,926,030	5,703,501	5,650,619	5,848,523	6,161,028
Truck, combination	1,681,500	1,695,751	1,746,586	1,789,968	1,997,345	2,028,562	2,096,619	2,154,174	2,276,661	1,908,365	2,010,335
Bus	670,423	685,503	694,781	697,548	715,540	728,777	746,125	749,548	760,717	776,550	795,274
Transit											
Motor bus	68,123	67,107	71,678	72,770	72,142	74,228	75,013	76,075	76,190	77,328	81,033
Light rail cars	1,051	1,048	1,114	1,078	1,076	1,180	1,327	1,371	1,448	1,482	1,622
Heavy rail cars	10,282	10,166	10,243	10,228	10,296	10,362	10,311	10,718	10,849	10,754	10,858
Trolley bus	643	695	675	655	646	657	652	600	616	672	597
Commuter rail cars and locomotives	5,126	5,164	5,240	5,426	5,536	5,550	5,498	5,572	5,724	5,959	6,228
Demand response	28,729	29,352	30,804	32,509	29,646	31,884	33,080	34,661	34,699	35,954	37,078
Other	2,505	2,809	3,003	3,808	4,703	5,059	5,208	5,727	6,330	6,272	6,566
Rail											
Class I, Freight cars	590,930	583,486	570,865	568,493	575,604	579,140	560,154	499,860	477,751	467,063	473,773
Class I, Locomotive	18,505	18,812	19,269	19,684	20,261	20,256	20,028	19,745	20,506	20,774	22,015
Nonclass I freight cars	86,120	84,724	87,364	116,108	121,659	126,762	132,448	125,470	130,590	124,580	120,169
Car companies and shippers freight cars	515,362	550,717	582,344	585,818	618,404	662,934	688,194	688,806	691,329	687,337	693,978
Amtrak, Passenger train car	1,852	1,722	1,730	1,728	1,962	1,992	1,894	2,084	2,896	1,623	1,211
Amtrak, Locomotive	338	313	299	332	345	329	378	401	372	442	276
Water											
Nonself-propelled vessels	30,730	31,360	32,811	33,011	33,509	33,387	33,152	33,042	32,381	31,335	31,296
Self-propelled vessels	8,334	8,281	8,293	8,408	8,523	8,379	8,202	8,546	8,621	8,648	8,994
Oceangoing steam and motor ships (1,000 gross tons and over)	544	512	509	495	473	470	461	454	443	416	412
Recreational boats	11,429,585	11,734,710	11,877,938	12,312,982	12,565,930	12,738,271	12,782,143	12,876,346	12,854,054	12,794,616	12,781,476

KEY: U = unavailable.

NOTES: Air carrier are those aircraft carrying passengers or cargo for hire under 14 CFR 121 and 14 CFR 135. The number of aircraft is the monthly average of the number of aircraft reported in use for the last three months of the year. General aviation data includes air taxi aircraft. Other transit includes aerial tramway, automated guideway transit, cablecar, ferry boat, inclined plane, monorail, and vanpool. Nonself-propelled vessels include dry-cargo barges, tank barges, and railroad-car floats. Self-propelled vessels include dry-cargo and/or passenger, offshore supply vessels, railroad-car ferries, tankers, and towboats. Recreational boats include those that are required to be numbered in accordance with Chapter 123 of Title 46 U.S.C.

SOURCE: Various sources, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, National Transportation Statistics 2006; table 1-11, available at <http://www.bts.gov/>, as of December 2006.

TABLE L-7 Transportation Capital Stock by Mode: 1995–2004
Current dollars (billions)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Public highways and streets	1,074.1	1,127.4	1,211.1	1,254.9	1,337.2	1,437.3	1,500.4	1,568.5	1,610.4	1,688.2
Consumer motor vehicles	842.2	875.1	899.4	950.4	1,020.8	1,092.2	1,156.0	1,213.5	1,259.3	1,340.6
In-house transportation	391.2	428.2	459.2	496.1	547.8	587.6	603.6	612.3	646.7	674.6
Other publicly owned transportation	U	U	215.0	229.5	245.2	266.5	280.4	305.7	327.5	348.8
Railroad transportation	246.8	254.3	254.8	260.1	262.7	266.9	272.3	273.4	279.6	285.1
Air transportation	118.0	128.6	140.8	157.6	173.4	195.7	215.6	223.5	232.9	247.6
Other privately owned transportation	97.1	97.8	98.4	100.5	102.2	105.2	106.2	103.9	103	105.4
Pipeline transportation	57.8	60.1	62.9	65.0	69.2	73.7	76.7	81.8	85.7	101.5
Commercial truck transportation	52.2	54.7	59.9	63.6	66.4	68.1	66.4	65.8	65.4	67.3
Water transportation	32.3	33.6	35.7	37.1	38.3	39.4	40.0	42.3	44.3	46.8
Private ground passenger transportation	25.1	26.7	27.4	29.0	31.7	33.9	35.1	34.8	35.8	38.1
Total	2,936.8	3,086.5	3,464.6	3,643.8	3,894.9	4,166.5	4,352.7	4,352.7	4,352.7	4,352.7

KEY: U = data are unavailable.

NOTES: Data include only privately owned capital stock unless otherwise noted. Capital stock data are reported after deducting depreciation. *Consumer motor vehicles* are considered consumer durable goods. *In-house transportation* includes transportation services provided within a firm whose main business is not transportation. For example, grocery companies often use their own truck fleets to move goods from their warehouses to their retail outlets. *Other publicly owned transportation* includes publicly owned airway, waterway, and transit structures but does not include associated equipment. *Other privately owned transportation* includes sightseeing, couriers and messengers, and transportation support activities, such as freight transportation brokers. Data may not add to total because of independent rounding.

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, *Fixed Assets and Consumer Durable Goods in the United States*, tables 3.1ES, 7.1B, and 8.1, available at <http://www.bea.gov/>, as of November 2006.

TABLE L-8 Rural and Urban Roads in Poor or Mediocre Condition by Functional Class: 1994–2004
Percentage of mileage in roadway class

	Rural				Urban				
	Interstates	Other principal arterials	Minor arterials	Collectors	Interstates	Other freeways and expressways	Other principal arterials	Minor arterials	Collectors
1994	33.0	10.6	14.0	17.8	42.9	18.0	28.8	19.0	26.0
1995	27.0	12.0	12.7	18.0	37.2	14.6	27.1	20.3	26.5
1996	23.0	7.3	10.5	17.0	36.9	12.1	25.9	19.9	26.3
1997	22.7	6.5	9.0	20.1	36.0	12.0	26.7	20.2	26.6
1998	20.6	6.1	7.9	21.8	34.9	12.0	31.3	17.9	20.9
1999	16.4	4.5	6.9	31.2	30.4	10.6	30.6	36.8	39.6
2000	14.3	4.0	7.0	21.2	28.2	10.9	30.0	26.0	32.1
2001	13.6	3.7	6.9	20.4	28.2	10.2	29.3	26.4	31.9
2002	12.3	3.4	5.8	19.5	28.2	10.3	29.7	26.6	32.8
2003	11.4	3.5	6.1	19.1	26.8	10.7	29.1	27.9	34.0
2004	12.4	4.2	6.5	18.8	24.9	9.7	27.8	28.8	34.8

NOTES: Data are for the 50 states and the District of Columbia. The terms *poor* and *mediocre* as used here are Federal Highway Administration (FHWA) pavement condition criteria term categories for quantitative International Roughness Index and Present Serviceability Ratings. For further information, see U.S. Department of Transportation, FHWA, *Status of the Nation's Highways, Bridges, and Transit: 2002 Conditions and Performance Report*, Exhibit 3-3, available at <http://www.fhwa.dot.gov/policy>, as of August 2005.

SOURCE: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics* (Washington, DC: Annual issues), table HM-63.

TABLE L-9 Condition of U.S. Highway Bridges: 1995-2005
Number

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Urban deficient bridges, total	42,692	43,181	41,711	41,661	42,032	42,093	42,088	42,178	42,202	42,473	43,991
Structurally deficient	15,205	15,094	14,846	14,073	12,967	12,695	12,705	12,503	12,316	12,175	12,600
Functionally deficient	27,487	28,087	26,865	27,588	29,065	29,398	29,383	29,675	29,886	30,298	31,391
Urban bridges, total	122,537	124,950	127,633	128,312	130,339	133,384	133,401	135,339	135,415	137,598	142,408
Rural deficient bridges, total	142,575	139,545	134,174	130,911	128,018	122,993	122,946	120,620	118,563	115,846	112,344
Structurally deficient	89,112	86,424	83,629	78,999	75,183	70,881	70,890	68,758	67,459	65,577	63,323
Functionally deficient	53,463	53,121	50,545	51,912	52,835	52,112	52,056	51,862	51,104	50,269	49,021
Rural bridges, total	458,598	456,913	455,118	454,664	455,203	456,290	456,284	455,548	456,525	456,215	452,955
All deficient bridges, total	185,267	182,726	175,885	172,572	170,050	165,086	165,034	162,798	160,765	158,319	156,335
Structurally deficient	104,317	101,518	98,475	93,072	88,150	83,576	83,595	81,261	79,775	77,752	75,923
Functionally deficient	80,950	81,208	77,410	79,500	81,900	81,510	81,439	81,537	80,990	80,567	80,412
All bridges, total	581,135	581,863	582,751	582,976	585,542	589,674	589,685	590,887	591,940	593,813	595,363

NOTES: *Structurally deficient* refers to bridges needing significant maintenance attention, rehabilitation, or replacement. *Functionally deficient* refers to bridges that do not have the lane widths, shoulder widths, or vertical clearances adequate to serve traffic demand or bridges that may not be able to handle occasional roadway flooding.

SOURCES: 1995-2000—U.S. Department of Transportation, Federal Highway Administration, Office of Bridge Technology, National Bridge Inventory Database, personal communication, August 14, 2001. 2001-2005—ibid., Count of Bridges by Highway System, available at <http://www.fhwa.dot.gov/bridge/britab.htm> as of November 2006.

TABLE L-10 U.S. Airport Runway Pavement Conditions: 1999–2005

	NPIAS airports (number)	Condition (percent)			Commercial service airports (number)	Condition (percent)		
		Good	Fair	Poor		Good	Fair	Poor
1999	3,344	72	23	5	547	78	20	2
2000	3,361	73	22	5	546	79	19	2
2001	3,364	73	22	5	546	79	19	2
2002	3,358	71	24	5	536	79	19	2
2003	3,346	75	21	4	510	80	18	2
2004	3,356	75	21	4	513	82	16	2
2005	3,357	75	21	4	517	79	19	2

KEY: NPIAS = National Plan of Integrated Airport Systems.

NOTES: The U.S. Department of Transportation, Federal Aviation Administration's (FAA's) *National Plan of Integrated Airport Systems* is composed of all commercial service airports, all reliever airports, and selected general aviation airports. It does not include over 1,000 publicly owned public-use landing areas, privately owned public-use airports, and other civil landing areas not open to the general public. NPIAS airports account for almost all enplanements. In 2005, there were 16,500 non-NPIAS airports. *Commercial service airports* are defined as public airports receiving scheduled passenger service, and having at least 2,500 enplaned passengers per year.

SOURCES: U.S. Department of Transportation, Federal Aviation Administration, Office of Airport Planning and Programming, National Planning Division, personal communications, June 23, 2000, Aug. 20, 2001, May 27, 2002, Jan. 29, 2004, June 10, 2005, Aug. 24, 2006.

Transportation Influences on the Economy

TABLE M-1 Relative Prices for Transportation Goods and Services for the United States and Selected Major Trade Partners: 2002
United States = 1.00

Country	2002
Turkey	0.82
Poland	0.95
Mexico	0.98
Greece	1.00
United States	1.00
New Zealand	1.05
Australia	1.06
Hungary	1.06
Canada	1.07
Spain	1.16
Italy	1.24
Belgium	1.25
France	1.26
Portugal	1.28
Germany	1.43
Austria	1.44
Netherlands	1.45
Japan	1.47
Ireland	1.53
Switzerland	1.55
Sweden	1.60
United Kingdom	1.61
Denmark	1.94
Norway	2.24

NOTES: 2002 was the most recent year for which these data were available by country at the time this report was prepared. Data are not available for goods and services separately. Relative prices are based on purchasing power parity for transportation-related goods and services.

SOURCES: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, calculations based on data from Organization for Economic Co-operation and Development (OECD), *Purchasing Power Parities and Real Expenditures, Benchmark year 2002* (Paris, France: 2005), table 1.11.

**TABLE M-2 U.S. Trade in Transportation-Related Goods:
1995–2005**

Millions of current dollars

	Imports	Exports	Total	Trade balance
1995	110,781	80,092	190,873	-30,689
1996	115,504	89,959	205,463	-25,545
1997	126,927	103,818	230,745	-23,109
1998	140,054	114,971	255,025	-25,083
1999	166,552	111,469	278,021	-55,083
2000	185,027	105,430	290,457	-79,597
2001	183,002	106,860	289,862	-76,142
2002	190,881	108,744	299,625	-82,137
2003	194,863	107,796	302,659	-87,067
2004	211,112	118,749	329,861	-92,363
2005	219,522	137,214	356,736	-82,308

NOTES: *Transportation-related goods* are motor vehicles and parts, aircraft and spacecraft and parts, railway vehicles and parts, and ships and boats. Data may not add to total because of independent rounding. *Trade balance* is equal to exports minus imports. All dollar amounts are in current dollars. These data have not been adjusted for inflation because there is no specific deflator available for transportation-related goods. In addition, it is difficult to control for trading partners' inflation rates as well as currency exchange fluctuations when adjusting the value of internationally traded goods and services for inflation.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, calculations based on data from U.S. Department of Commerce, U.S. International Trade Commission, Interactive Tariff and Trade DataWeb, available at <http://dataweb.usitc.gov/>, as of May 2006.

TABLE M-3 U.S. Trade in Transportation-Related Goods by Commodity: 2005

Millions of current dollars

	Overall (exports plus imports)	Balance (exports minus imports)
Vehicles other than railway	282,966	-116,645
Aircraft, spacecraft, and parts	66,309	33,337
Ships, boats, and floating structures	3,707	281
Railway locomotives and parts	3,753	719
Total, transportation-related goods	356,736	-82,308
Total, all commodities	2,575,320	-766,561

NOTES: These data have not been adjusted for inflation because there is no specific deflator available for transportation-related goods. In addition, it is difficult to control for trading partners' inflation rates as well as currency exchange fluctuations when adjusting the value of internationally traded goods and services for inflation.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, calculations based on data from U.S. Department of Commerce, U.S. International Trade Commission, Interactive Tariff and Trade DataWeb, available at <http://dataweb.usitc.gov/>, as of June 2006.

TABLE M-4 U.S. International Trade in Transportation-Related Services: 1995–2005

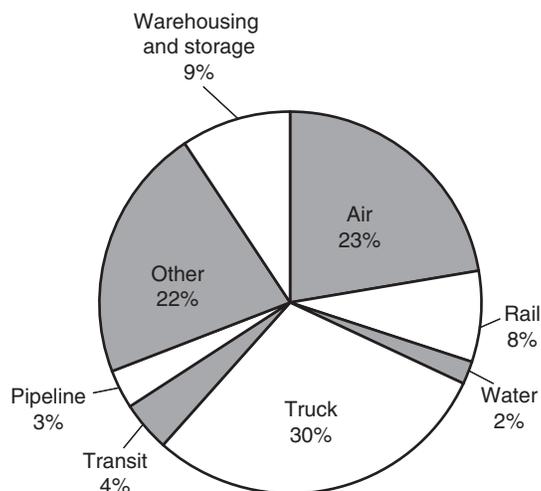
Millions of current dollars

	Imports	Exports	Total	Trade balance
1995	41,697	44,990	86,687	3,293
1996	43,212	46,496	89,708	3,284
1997	47,097	47,874	94,971	777
1998	50,334	45,702	96,036	-4,632
1999	55,454	46,701	102,155	-8,753
2000	65,699	50,490	116,189	-15,209
2001	61,315	46,368	107,683	-14,947
2002	58,376	46,241	104,617	-12,135
2003	65,662	47,285	112,947	-18,377
2004	77,884	56,287	134,171	-21,597
2005	88,173	63,176	151,349	-24,997

NOTE: *Transportation-related services* include passenger fares and freight and port services. It excludes receipts and payments for travel services, which includes purchases of goods and services (e.g., food, lodging, recreation, gifts, entertainment, and any incidental expense on a foreign visit). *Trade balance* is equal to exports minus imports.

These data have not been adjusted for inflation because there is no specific deflator available for transportation-related services. In addition, it is difficult to control for trading partners' inflation rates as well as currency exchange fluctuations when adjusting the value of internationally traded goods and services for inflation.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, calculations based on data from U.S. Department of Commerce, Bureau of Economic Analysis, International Transactions Accounts data, available at <http://www.bea.doc.gov/>, as of June 2006.

FIGURE M-5 Distribution by Mode of U.S. Gross Domestic Product Attributed to For-Hire Transportation Services: 2005

TABLE M-5 U.S. Gross Domestic Product Attributed to For-Hire Transportation Services: 1995-2005
 Chained 2000 Dollars (billions)

	U.S. Gross Domestic Product (GDP)	For-hire transportation services GDP, total	Air	Rail	Water	Truck	Transit and ground passenger transportation	Pipeline	Other transportation and support activities	Warehousing and storage
1995	8,031.7	242.7	38.1	25.3	6.0	80.8	12.0	7.4	55.8	18.0
1996	8,328.9	255.1	45.1	25.2	6.7	83.8	12.0	7.4	56.4	18.8
1997	8,703.5	266.6	47.5	23.6	7.3	87.7	13.9	6.9	59.7	20.8
1998	9,066.9	275.8	48.7	24.4	7.0	91.0	14.3	6.9	62.6	22.0
1999	9,470.3	287.4	52.9	24.8	6.4	91.9	14.7	7.7	66.2	23.4
2000	9,817.0	301.6	57.7	25.5	7.2	92.8	14.5	8.7	70.2	25.0
2001	9,890.7	293.6	57.0	24.8	6.8	87.9	14.5	8.3	69.4	24.4
2002	10,048.8	300.2	62.8	24.4	5.6	87.5	14.6	9.6	70.6	25.6
2003	10,301.0	306.2	67.2	25.7	5.4	88.9	14.3	9.3	70.3	26.9
2004	10,703.5	322.3	71.1	26.9	5.9	95.8	14.3	9.3	72.1	28.7
2005	11,048.6	335.2	75.6	26.0	6.6	100.1	14.4	11.1	73.0	31.5

NOTES: For-hire transportation numbers may not equal total due to the nature of the chained dollar calculations. Numbers may not add to totals due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, Industry Economic Accounts, available at <http://www.bea.doc.gov/>, as of December 2006.

TABLE M-6 U.S. Gross Domestic Product Attributed to Transportation-Related Final Demand: 1994–2004
Chained 2000 dollars (billions)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
TOTAL U.S. Gross Domestic Product (GDP)	7,835.5	8,031.7	8,328.9	8,703.5	9,066.9	9,470.3	9,817.0	9,890.7	10,048.8	10,320.6	10,755.7
Total domestic transportation-related final demand	U	U	U	991.1	1,048.3	1,095.9	1,089.5	1,098.7	1,100.7	1,101.3	1,124.4
Total transportation in GDP (percent)	U	U	U	11.4	11.6	11.6	11.1	11.1	11.0	10.7	10.5
Personal consumption of transportation, total	646.3	658.6	690.8	730.7	781.3	832.1	853.5	872.1	891.1	905.9	920.4
Motor vehicles and parts	276.2	272.3	285.4	304.7	339.0	372.4	386.5	405.8	429.0	442.1	450.4
Gasoline and oil	151.7	154.5	157.9	162.8	170.3	176.3	175.7	178.3	181.9	183.2	186.0
Transportation services	218.4	231.8	247.5	263.2	272.0	283.4	291.3	288.0	280.2	280.6	284.0
Gross private domestic investment, total	U	U	U	142.5	152.9	174.2	167.4	149.4	132.1	119.4	134.6
Transportation structures	U	U	U	6.6	7.5	6.5	6.6	6.6	6.1	5.6	5.8
Transportation equipment	111.4	120.6	125.4	135.9	145.4	167.7	160.8	142.8	126.0	113.8	128.8
Exports (+), total	143.1	142.1	149.4	170.7	181.2	181.0	179.0	171.6	170.7	164.6	178.9
Imports (-), total	186.8	189.0	195.5	214.0	232.5	264.5	288.0	280.1	285.2	290.7	311.5
Government transportation-related purchases, total	160.1	156.5	157.6	161.2	165.4	173.1	177.6	185.7	192.0	202.1	202.0
Federal purchases	19.8	18.0	18.5	18.8	19.6	19.4	19.2	20.6	25.0	28.2	26.2
State and local purchases	130.5	128.8	129.4	133.7	137.0	144.3	149.4	155.8	157.3	159.9	161.9
Defense-related purchases	9.8	9.7	9.7	8.7	8.8	9.4	9.0	9.3	9.7	14.0	13.9

KEY: U= data are not available.

NOTES: Data may not equal total due to the nature of the chained dollar calculations. Data may not add to totals due to independent rounding.

Total domestic transportation-related final demand is the sum of total personal consumption of transportation, total gross private domestic investment, net exports of transportation-related goods and services, and total government-related purchases. *Federal purchases* and *state and local purchases* are the sum of consumption expenditures and gross investments. *Defense-related purchases* are the sum of the transportation of material and travel.

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, National Income Product Accounts Tables, tables 1.1.6, 2.3.6, 3.11.6, 3.15.6, 4.2.6, 5.4.6B, and 5.5.6, available at <http://www.bea.doc.gov/bea/>, as of August 2006.

TABLE M-7 Employment in For-Hire Transportation and Selected Transportation-Related Industries: 1995-2005
Thousands (NAICS basis)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
TOTAL U.S. labor force	117,298	119,708	122,776	125,930	128,993	131,785	131,826	130,341	129,999	131,435	133,463
Transportation related labor force	12,448	12,191	12,997	13,267	13,545	13,678	13,514	13,192	12,933	12,972	12,328
Transportation and warehousing (48-49)	3,838	3,935	4,027	4,168	4,300	4,410	4,372	4,224	4,185	4,249	4,347
Air transportation (481)	511	526	542	563	586	614	615	564	528	515	501
Rail transportation (482)	233	225	221	225	229	232	227	218	218	226	228
Water transportation (483)	51	51	51	51	52	56	54	53	55	56	61
Truck transportation (484)	1,249	1,282	1,308	1,354	1,392	1,406	1,387	1,339	1,326	1,352	1,393
Transit and ground passenger transportation (485)	328	339	350	363	371	372	375	381	382	385	389
Pipeline transportation (486)	54	51	50	48	47	46	45	42	40	38	38
Scenic and sightseeing transportation (487)	22	23	25	25	26	28	29	26	27	27	30
Support activities for transportation (488)	430	446	473	497	518	537	539	525	520	535	551
Postal service (491)	850	867	866	881	890	880	873	842	809	784	U
Couriers and messengers (492)	517	540	546	568	586	605	587	561	562	557	572
Warehousing and storage (493)	444	452	462	474	494	514	514	517	528	558	585
Transportation related manufacturing											
Petroleum and coal products manufacturing (324)	140	137	136	135	128	123	121	118	114	112	113
Tire manufacturing (32621)	87	86	84	87	87	87	82	76	72	70	68
Rubber and plastic hoses and belting manufacturing (32622)	27	27	28	29	30	30	29	28	28	28	29
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing (334511)	158	158	159	163	161	149	150	148	145	151	157
Transportation equipment manufacturing (336)	1,977	1,974	2,026	2,077	2,087	2,056	1,938	1,829	1,774	1,766	1,772
Other transportation related industries											
Highway, street, and bridge construction (2373)	278	288	294	308	336	340	346	346	340	347	352
Motor vehicle and motor vehicle parts and supplies merchant wholesalers (4231)	335	343	350	354	360	356	347	346	342	341	344
Transportation equipment and supplies merchant wholesalers (42386)	32	33	35	37	40	39	36	34	32	32	32

TABLE M-7 Employment in For-Hire Transportation and Selected Transportation-Related Industries: 1995-2005 (continued)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Petroleum and petroleum products merchant wholesalers (4247)	126	124	123	122	123	119	114	111	106	101	101
Motor vehicle parts dealers (441)	1,627	1,686	1,723	1,741	1,797	1,847	1,855	1,879	1,883	1,902	1,919
Gasoline stations (447)	922	946	956	961	944	936	925	896	882	876	871
Automotive equipment rental and leasing (5321)	171	180	184	189	199	208	208	195	193	197	199
Travel arrangement and reservation services (5615)	281	294	302	304	297	299	285	252	235	226	224
Other ambulatory health care services (6219)	143	154	164	171	173	173	180	187	195	200	207
Automotive repair and maintenance (8111)	738	781	811	828	864	888	904	900	894	891	888
Parking lots and garages (81293)	75	78	82	85	89	93	96	96	100	102	104
Government employment, total	644	99	647	629	642	646	654	686	605	600	602
U.S. Department of Transportation (U.S. DOT)	101	99	98	99	100	100	102	141	59	57	56
State and Local Highway	543	N	548	530	543	546	552	545	546	543	546

KEY: U = Data are unavailable

NOTES: Total U.S. labor force excludes farm employment. Transportation and warehousing total does not include postal service. Tire manufacturing includes tire retreading. Transportation equipment and supplies merchant wholesalers does not include motor vehicle wholesalers. Government employment does not include all government agencies (e.g., the National Transportation Safety Board). The U.S. Department of Transportation was created in 1966. Data are for fiscal year and include permanent civilians as well as temporary employees and military. The United States Coast Guard (USCG) and the Transportation Security Administration (TSA) were transferred to the Department of Homeland Security in 2003. State and Local Highway is full-time equivalent employment. Due to a change in the reference period, from October to March, the October 1996 Annual Survey of Government Employment and Payroll was not conducted.

SOURCES: 1995-2003: Various sources, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, National Transportation Statistics 2006, table 3-19b, available at <http://www.bts.gov/>, as of June 2006. 2004-2005: U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics, available at http://www.bls.gov, as of June 2006. U.S. DOT Employment: U.S. DOT, Office of the Secretary of Transportation, DOT Workforce Demographics, Demographics by Year, available at: <http://dotnr.ost.dot.gov/> as of June 2006. State and Local Highway Employment: U.S. Department of Commerce, Bureau of the Census, "Federal, State, and Local Governments Public Employment and Payroll Data." Available at <http://www.census.gov>, as of June 2006.

Chapter 3

State of Transportation Statistics

State of Transportation Statistics

U.S. Department of Transportation's Research and Innovative Technology Administration (RITA) Bureau of Transportation Statistics (BTS) legislative mandate requires annual submission of this Transportation Statistics Annual Report to the President and Congress. The report is to include information on the 13 topics covered in Chapter 2 of this report, documentation of methods used to obtain and ensure the quality of information presented in the report, and recommendations for improving transportation statistical information. The last two items are the subject of this chapter.

Information Quality

BTS obtained the data in this report from many sources, including federal government agencies, private industries, and associations. Some of the data are based on samples and are subject to sampling variability. Data from all sources may be subject to omissions and errors in reporting, recording, and processing. Documents cited as sources for the tables often provide detailed information about definitions, methodologies, and statistical reliability.

Federal data are subject to guidelines, policies, and information practices that pertain to all federal agencies disseminating information to the public under Office of Management Budget directives (OMB).

Because federal agencies are subject to these guidelines, BTS relies on federal sources for the data used in this report where possible. A large number of federal agencies, both within the Department of Transportation and in other agencies, collect, compile, analyze, and publish transportation data. A partial list of these organizations is included in Table 1. In some cases, these agencies compile and disseminate data submitted or reported by states or private parties on transportation operations, planning, financing, or management. Some agencies also conduct surveys or otherwise directly collect data on particular matters, either through their own auspices or through partnerships with other entities. Still other agencies produce data or information relevant to transportation, even though transportation is not the primary purpose.

Table 1.
Selected Federal Agencies that Collect or Compile Transportation Data

<p>Multimodal Data (including economic data) Bureau of Economic Analysis USDOC Bureau of Labor Statistics USDOL Bureau of Transportation Statistics (Research and Innovative Technology Administration) USDOT Customs and Border Protection USDHS Census Bureau USDOC</p>
<p>Aviation Data Bureau of Transportation Statistics (Research and Innovative Technology Administration) USDOT Federal Aviation Administration USDOT Office of Aviation and International Affairs USDOT National Transportation Safety Board (independent)</p>
<p>Hazardous Materials Data Pipeline and Hazardous Materials Administration USDOT U.S. Census Bureau/ RITA/BTS</p>
<p>Highway Data Federal Highway Administration USDOT Federal Motor Carrier Safety Administration USDOT Federal Transit Administration USDOT National Highway Traffic Safety Administration USDOT</p>
<p>Maritime and Inland Waterways Data Maritime Administration USDOT Federal Maritime Commission St. Lawrence Seaway Development Corporation USDOT U.S. Army Corps of Engineers (U.S. Army) U.S. Coast Guard USDHS</p>
<p>Pipeline Data Pipeline and Hazardous Materials Administration USDOT</p>
<p>Railroad Data Federal Railroad Administration USDOT Surface Transportation Board USDOT</p>
<p>Transit Data Federal Transit Administration USDOT</p>
<p>Other Agencies Collecting Data Related to Transportation Agricultural Marketing Service USDOA Environmental Protection Agency Energy Information Administration USDOE</p>

KEY: USDOA—U.S. Department of Agriculture; **USDOC**—U.S. Department of Commerce; **USDHS**—U.S. Department of Homeland Security; **USDOE**—U.S. Department of Energy; **USDOL**—U.S. Department of Labor; **USDOT**—U.S. Department of Transportation.

OMB chairs an interagency statistical policy committee, comprised of the heads of thirteen statistical agencies in the federal government, including RITA's BTS. Statistical policies and guidelines for best practices are developed by this group and distributed to these and other agencies engaged in statistics.

RITA's BTS has developed guidelines for good statistical practices in the transportation field in response to its legislative mandate. Specific topics covered include planning data systems, collection of data, processing data, dissemination of information, and evaluation of information quality. These guidelines apply to all information, including compilations containing data from other sources appearing in RITA's BTS publications. Box A discusses various federal statistical quality manual and guidelines pertinent to transportation data.

Agencies also often have their own specific requirements and guidelines that may be in addition to government-wide guidance. For example, they may issue guidelines for data reporting by state agencies, localities, and transportation providers. Such guidance may contribute to greater uniformity, comparability, and quality of the resulting data even though it comes from multiple providers.

In many but by no means all cases, source agencies document the methods used in collecting, compiling, and assuring the quality of the data they produce. Source and accuracy statements in many cases are published by the source agency. The RITA's BTS website for National Transportation Statistics, a web based companion document to this report, summarizes much of this information with respect to particular data series.

Box A

Information Quality Guidelines for Federal Transportation Data

As a federal statistical organization, BTS has its own statistical standards and participates with other federal statistical organizations to improve the quality of statistical information. The practices of other transportation agencies that collect, compile, and disseminate statistical data also are conducted under various guidelines. Here are citations to some key information and statistical quality documents and guidelines.

- *BTS Statistical Standards Manual*—Covers all aspects of BTS’s statistical practice.
- *Guide to Good Statistical Practice in the Transportation Field*—Includes the DOT guidelines for statistical information and additional BTS guidance for good statistical practice.
- DOT Report for Implementing OMB’s Information Dissemination Quality Guidelines—The DOT implementation of the Office of Management and Budget (OMB) information quality guidelines and correction procedures. The DOT guidelines permit the operating administrations to issue their own guidelines, provided that these guidelines are consistent with the overall DOT guidelines.
- Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies –Federal Register Notice, Vol. 67, No. 36, Feb. 22, 2002, Part IX – Office of Management and Budget.
- *Guidelines of the Federal Statistical Organizations* - An approach to guidelines for statistical information adopted by the Interagency Council on Statistical Policy (ICSP).

Data Gaps

Resource constraints are now causing reductions in scope, postponement, delays, and in some cases discontinuation of several long-term data series important to understanding changes in the field of transportation. RITA/BTS, for example, will not conduct a previously planned long-distance travel survey in 2007 due to resource constraints; this survey was conducted most recently in 2001/2002 as part of the National Household Travel Survey (NHTS) conducted jointly by RITA/BTS and the Federal Highway Administration and prior to that by BTS (as the American Travel Survey) in 1995 and by the U.S. Census Bureau in 1977. These long-distance travel surveys provided data on the number, length, origins and destinations, modes of transportation, purpose, and traveler characteristics of U.S. residents making long-distance trips.

Reflecting resource constraints in the Federal Highway Administration, the remaining component of the NHTS, which comprises the daily (largely local) travel survey, will not yield nationally representative survey findings in 2008. Instead, the survey will be limited to states that chose to fund the survey in their own state. A number of states have elected to directly fund the survey in their state. Other states may elect to participate, but a full national survey will not be carried out unless resources can be secured. Prior national surveys have been conducted periodically since the late 1960s. These surveys give benchmark data on traveler characteristics, number of trips, trip distance, modes used, and other matters pertinent to daily travel.

Also, Census Bureau officials have indicated that, due to resource constraints, the Vehicle Inventory and Use Survey will be discontinued; the planned repeat of the survey as part of the Economic Census in 2007 will not take place. The VIUS is the most indepth inventory of the characteristics of the nation's highway truck fleet, covering all categories from lightweight pickups and utility vehicles through large trucks. Previous editions of this survey, and its earlier counterpart, the Truck Inventory and Use Survey, were conducted at twice a decade intervals extending back to 1963.

In addition, the U.S. Army Corps of Engineers (USACE) has discontinued one of its international maritime statistics data sets—the U.S. foreign trade-based data series. Preliminary and monthly cargo summary reports that have been made available on the Navigation Data Center and U.S. Department of Transportation, Maritime Administration websites (type service, dollar value, weight) and the monthly and annual waterborne databanks have been discontinued. Monthly foreign trade and transportation data will no longer be publicly available from the USACE. The foreign waterborne commerce annual data set will be publicly available but will not include cargo value.

Finally, due to budget constraints, the Department of Transportation and National Academy of Sciences have been unable to reach agreement for carrying out a transportation information needs assessment. The Academy's assessment, called for in SAFETEA-LU,¹ was to comprehensively examine information needs at federal, state, and local level by 2008, and was to identify priorities and costs of achieving these priorities.

There is continuing recognition in the transportation community of the need to develop priorities for transportation data needs, however. While not to be confused with the information needs assessment mentioned above, the Transportation Research Board (TRB) has acted separately to engage its many committees of professionals in transportation fields to get their input on key data needs. TRB has produced a circular, *Transportation Information Assets and Impacts*, detailing the results. The circular identifies needs as various as interregional commodity flows, travel by people in different socioeconomic groups and gender, and characteristics of tribal travel and infrastructure. The circular also suggests that the TRB standing committees devote some attention each year to the "status of data assets within their scope, identifying new and unmet data needs, the expected value and costs of meeting those needs and the recommended priorities for enhancing local and national transportation data assets."² Members of the TRB standing committee include transportation professionals from all fields and regions of the country.

Whether a broader and sustained commitment for action can be forged remains to be seen: Availability of good data for transportation decisionmaking is ultimately a question of resources.

¹ Section 5601 (d) of the Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

² Transportation Research Board, Data and Information Systems Section, Transportation Research Circular E-C109: *Transportation Information Assets and Impacts* (Washington, DC: Transportation Research Board of the National Academy of Sciences) December 2006, p. 19.

Appendices

Appendix A: List of Acronyms and Glossary

AAR	Association of American Railroads
ADA	Americans with Disabilities Act
APTA	American Public Transportation Association
ATPI	Air Travel Price Index
ATTI	Air Travel Time Index
ATTVI	Air Travel Time Variability Index
BEA	Bureau of Economic Analysis
BLS	Bureau of Labor Statistics
BTS	Bureau of Transportation Statistics
Btu	British thermal unit
CBP	U.S. Customs and Border Protection
CFS	Commodity Flow Survey
CO	carbon monoxide
CO ₂	carbon dioxide
CPI	Consumer Price Index
CPSC	Consumer Product Safety Commission
DHS	U.S. Department of Homeland Security
DOC	U.S. Department of Commerce
DOE	U.S. Department of Energy
DOL	U.S. Department of Labor
DOT	U.S. Department of Transportation
dwt	deadweight tons
EIA	Energy Information Administration
EPA	U.S. Environmental Protection Agency
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FY	fiscal year
GDP	Gross Domestic Product
GHG	greenhouse gas
GIS	geographic information systems
GVWR	gross vehicle weight rating
HMIS	Hazardous Materials Information System

ISTEA	Intermodal Surface Transportation Efficiency Act
ITS	intelligent transportation system
MARAD	Maritime Administration
MFP	multifactor productivity
MISLE	Marine Information and Safety Law Enforcement
mmtc	million metric tons of carbon
mpg	miles per gallon
mph	miles per hour
MPO	metropolitan planning organization
MSA	metropolitan statistical area
NAICS	North American Industry Classification System
NEI	National Emissions Inventory
NEISS	National Electronic Injury Surveillance System
NHTS	National Household Travel Survey
NHTSA	National Highway Traffic Safety Administration
NO _x	nitrogen oxides
NPIAS	National Plan of Integrated Airport Systems
NTAD	National Transportation Atlas Database
NTD	National Transit Database
NTS	<i>National Transportation Statistics</i> report
NTSB	National Transportation Safety Board
O&D	origin and destination
OECD	Organization for Economic Cooperation and Development
OOS	out of service
OPEC	Organization of Petroleum Exporting Countries
PM-2.5	particulate matter of 2.5 microns in diameter or smaller
PM-10	particulate matter of 10 microns in diameter or smaller
pmt	passenger-miles of travel
quads	quadrillions
RITA	Research and Innovative Technology Administration
rpm	revenue passenger-mile
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act—A Legacy for Users
SCTG	Standard Classification of Transported Goods
SE	standard error
SIC	Standard Industrial Classification
STOL	short take-off and landing
SUV	sport utility vehicle
TEA-21	Transportation Equity Act for the 21st Century
TEU	20-foot equivalent container unit
TgCO ₂ Eq	teragrams of carbon dioxide equivalent
TSAR	<i>Transportation Statistics Annual Report</i>
TSI	Transportation Services Index

TTI	Texas Transportation Institute
TTI	Travel Time Index
USCG	U.S. Coast Guard
USDOT	U.S. Department of Transportation
VIUS	Vehicle Inventory and Use Survey
vmt	vehicle-miles of travel
VOC	volatile organic compounds

Glossary

14 CFR 121 (air): *Code of Federal Regulations*, Title 14, part 121. Prescribes rules governing the operation of domestic, flag, and supplemental air carriers and commercial operators of large aircraft.

14 CFR 135 (air): *Code of Federal Regulations*, Title 14, part 135. Prescribes rules governing the operations of commuter air carriers (scheduled) and on-demand air taxi (unscheduled).

ACCIDENT (aircraft): As defined by the National Transportation Safety Board, an occurrence incidental to flight in which, as a result of the operation of an aircraft, any person (occupant or nonoccupant) receives fatal or serious injury or any aircraft receives substantial damage.

ACCIDENT (automobile): See Crash (highway).

ACCIDENT (gas): 1) An event that involves the release of gas from a pipeline or of liquefied natural gas (LNG) or other gas from an LNG facility resulting in personal injury necessitating in-patient hospitalization or a death; or estimated property damage of \$50,000 or more to the operator or others, or both, including the value of the gas that escaped during the accident; 2) an event that results in an emergency shutdown of an LNG facility; or 3) an event that is significant in the judgment of the operator even though it did not meet the criteria of (1) or (2).

ACCIDENT (hazardous liquid or gas): Release of hazardous liquid or carbon dioxide while being transported, resulting in any of the following: 1) an explosion or fire not intentionally set by the operator; 2) loss of 50 or more barrels of hazardous liquid or carbon dioxide; 3) release to the atmosphere of more than 5 barrels a day of

highly volatile liquids; 4) death of any person; 5) bodily harm resulting in one or more of the following—a) the loss of consciousness, b) the necessity of carrying a person from the scene, c) the necessity for medical treatment, d) disability that prevents the discharge of normal duties; and 6) estimated damage to the property of the operators and/or others exceeding \$50,000.

ACCIDENT (highway-rail grade-crossing): An impact between on-track railroad equipment and an automobile, bus, truck, motorcycle, bicycle, farm vehicle, or pedestrian or other highway user at a designated crossing site. Sidewalks, pathways, shoulders, and ditches associated with the crossing are considered to be part of the crossing site.

ACCIDENT (rail): A collision, derailment, fire, explosion, act of God, or other event involving operation of railroad on-track equipment (standing or moving) that results in railroad damage exceeding an established dollar threshold.

ACCIDENT (recreational boating): An occurrence involving a vessel or its equipment that results in 1) a death; 2) an injury that requires medical treatment beyond first aid; 3) damage to a vessel and other property, totaling more than \$500 or resulting in the complete loss of a vessel; or 4) the disappearance of the vessel under circumstances that indicate death or injury. Federal regulations (33 CFR 173–4) require the operator of any vessel that is numbered or used for recreational purposes to submit an accident report.

ACCIDENT (transit): An incident involving a moving vehicle, including another vehicle, an object, or person (except suicides), or a derailment/left roadway.

AIR CARRIER: The commercial system of air transportation comprising large certificated air carriers, small certificated air carriers, commuter air carriers, on-demand air taxis, supplemental air carriers, and air travel clubs.

AIR TAXI: An aircraft operator who conducts operations for hire or compensation in accordance with 14 CFR 135 (for safety purposes) or FAR Part 135 (for economic regulations or reporting purposes) in an aircraft with 30 or fewer passenger seats and a payload capacity of 7,500 pounds or less. An air taxi operates on an on-demand basis and does not meet the flight schedule qualifications of a commuter air carrier (see below).

AIRPORT: A landing area regularly used by aircraft for receiving or discharging passengers or cargo.

ALTERNATIVE FUELS: The Energy Policy Act of 1992 defines alternative fuels as methanol, denatured ethanol, and other alcohol; mixtures containing 85 percent or more (but not less than 70 percent as determined by the Secretary of Energy by rule to provide for requirements relating to cold start, safety, or vehicle functions) by volume of methanol, denatured ethanol, and other alcohols with gasoline or other fuels. Includes compressed natural gas, liquid petroleum gas, hydrogen, coal-derived liquid fuels, fuels other than alcohols derived from biological materials, electricity, or any other fuel the Secretary of Energy determines by rule is substantially not petroleum and would yield substantial energy security and environmental benefits.

AMTRAK: Operated by the National Railroad Passenger Corporation, this rail system was created by the Rail Passenger Service Act of 1970 (Public Law 91-518, 84 Stat. 1327) and given the responsibility for the operation of intercity, as distinct from suburban, passenger trains between points designated by the Secretary of Transportation.

ARTERIAL HIGHWAY: A major highway used primarily for through traffic.

ASPHALT: A dark brown to black cement-like material containing bitumen as the predominant constituent. The definition includes crude asphalt and finished products such as cements, fluxes, the asphalt content of emulsions, and petroleum distillates blended with asphalt to make cutback asphalt. Asphalt is obtained by petroleum processing.

AVAILABLE SEAT-MILES (air carrier): The aircraft-miles flown in each interairport hop multiplied by the number of seats available on that hop for revenue passenger service.

AVERAGE HAUL: The average distance, in miles, one ton is carried. It is computed by dividing ton-miles by tons of freight originated.

AVERAGE PASSENGER TRIP LENGTH (bus/rail): Calculated by dividing revenue passenger-miles by the number of revenue passengers.

AVIATION GASOLINE (general aviation): All special grades of gasoline used in aviation reciprocating engines, as specified by American Society of Testing Materials Specification D910 and Military Specification MIL-G5572. Includes refinery products within the gasoline range marketed as or blended to constitute aviation gasoline.

BARREL (oil): A unit of volume equal to 42 U.S. gallons.

BRITISH THERMAL UNIT (Btu): The quantity of heat needed to raise the temperature of 1 pound (approximately 1 pint) of water by 1 °F at or near 39.2 °F.

BULK CARRIER (water): A ship with specialized holds for carrying dry or liquid commodities, such as oil, grain, ore, and coal, in unpackaged bulk form. Bulk carriers may be designed to carry a single bulk product (crude oil tanker) or accommodate several bulk product types (ore/

bulk/oil carrier) on the same voyage or on a subsequent voyage after holds are cleaned.

BUS: Large motor vehicle used to carry more than 10 passengers, including school buses, intercity buses, and transit buses.

CAR-MILE (rail): The movement of a railroad car a distance of one mile. An empty or loaded car-mile refers to a mile run by a freight car with or without a load. In the case of intermodal movements, the designation of empty or loaded refers to whether the trailers or containers are moved with or without a waybill.

CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY (air carrier): A certificate issued by the U.S. Department of Transportation to an air carrier under Section 401 of the Federal Aviation Act authorizing the carrier to engage in air transportation.

CERTIFICATED AIR CARRIER: An air carrier holding a Certificate of Public Convenience and Necessity issued by the U.S. Department of Transportation to conduct scheduled services interstate. These carriers may also conduct non-scheduled or charter operations. Certificated air carriers operate large aircraft (30 seats or more or a maximum load of 7,500 pounds or more) in accordance with FAR Part 121. See also Large Certificated Air Carrier.

CERTIFICATED AIRPORTS: Airports that service air carrier operations with aircraft seating more than 30 passengers.

CHAINED DOLLARS: A measure used to express real prices, defined as prices that are adjusted to remove the effect of changes in the purchasing power of the dollar. Real prices usually reflect buying power relative to a reference year. The “chained-dollar” measure is based on the average weights of goods and services in successive pairs of years. It is “chained” because the second year in each pair, with its weights,

becomes the first year of the next pair. Prior to 1996, real prices were expressed in constant dollars, a weighted measure of goods and services in a single year. See also Constant Dollars and Current Dollars.

CLASS I RAILROAD: A carrier that has an annual operating revenue of \$250 million or more after applying the railroad revenue deflator formula, which is based on the Railroad Freight Price Index developed by the U.S. Department of Labor, Bureau of Labor Statistics. The formula is the current year’s revenues multiplied by the 1991 average index or current year’s average index.

COASTWISE TRAFFIC (water): Domestic traffic receiving a carriage over the ocean or the Gulf of Mexico (e.g., between New Orleans and Baltimore, New York and Puerto Rico, San Francisco and Hawaii, Alaska and Hawaii). Traffic between Great Lakes ports and seacoast ports, when having a carriage over the ocean, is also considered coastwise.

COLLECTOR (highway): In rural areas, routes that serve intracounty rather than statewide travel. In urban areas, streets that provide direct access to neighborhoods and arterials.

COMBINATION TRUCK: A power unit (truck tractor) and one or more trailing units (a semi-trailer or trailer).

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).

COMMERCIAL SERVICE AIRPORT: Airport receiving scheduled passenger service and having 2,500 or more enplaned passengers per year.

COMMUTER AIR CARRIER: Different definitions are used for safety purposes and for economic regulations and reporting. For safety

analysis, commuter carriers are defined as air carriers operating under 14 CFR 135 that carry passengers for hire or compensation on at least five round trips per week on at least one route between two or more points according to published flight schedules, which specify the times, days of the week, and points of service. On March 20, 1997, the size of the aircraft subject to 14 CFR 135 was reduced from 30 to fewer than 10 passenger seats. (Larger aircraft are subject to the more stringent regulations of 14 CFR 121.) Helicopters carrying passengers or cargo for hire, however, are regulated under CFR 135 whatever their size. Although, in practice, most commuter air carriers operate aircraft that are regulated for safety purposes under 14 CFR 135 and most aircraft that are regulated under 14 CFR 135 are operated by commuter air carriers, this is not necessarily the case.

For economic regulations and reporting requirements, commuter air carriers are those carriers that operate aircraft of 60 or fewer seats or a maximum payload capacity of 18,000 pounds or less. These carriers hold a certificate issued under section 298C of the Federal Aviation Act of 1958, as amended.

COMMUTER RAIL (transit): Urban passenger train service for short-distance travel between a central city and adjacent suburb. Does not include rapid rail transit or light rail service.

CONSTANT DOLLARS: Dollar value adjusted for changes in the average price level by dividing a current dollar amount by a price index. See also Chained Dollars and Current Dollars.

CRASH (highway): An event that produces injury and/or property damage, involves a motor vehicle in transport, and occurs on a trafficway or while the vehicle is still in motion after running off the trafficway.

CRUDE OIL: A mixture of hydrocarbons that exists in the liquid phase in natural underground

reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities.

CURRENT DOLLARS: Dollar value of a good or service in terms of prices current at the time the good or service is sold. See also Chained Dollars and Constant Dollars.

DEADWEIGHT TONNAGE (water): The carrying capacity of a vessel in long tons (2,240 pounds). It is the difference between the number of tons of water a vessel displaces "light" and the number of tons it displaces when submerged to the "load line."

DEMAND-RESPONSE VEHICLE (transit): A nonfixed-route, nonfixed-schedule vehicle that operates in response to calls from passengers or their agents to the transit operator or dispatcher.

DIESEL FUEL: A complex mixture of hydrocarbons with a boiling range between approximately 350 and 650 °F. Diesel fuel is composed primarily of paraffins and naphthenic compounds that auto-ignite from the heat of compression in a diesel engine. Diesel is used primarily by heavy-duty road vehicles, construction equipment, locomotives, and by marine and stationary engines.

DOMESTIC FREIGHT (water): All waterborne commercial movement 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 OPERATIONS (air carrier): All air carrier operations having destinations within the 50 United States, the District of Columbia, the Commonwealth of Puerto Rico, and the U.S. Virgin Islands.

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

DRY CARGO BARGES (water): Large flat-bottomed, nonself-propelled vessels used to transport dry-bulk materials such as coal and ore.

ENERGY EFFICIENCY: The ratio of energy inputs to outputs from a process, for example, miles traveled per gallon of fuel (mpg).

ENPLANED PASSENGERS (air carrier): See Revenue Passenger Enplanements.

FATAL CRASH (highway): A police-reported crash involving a motor vehicle in transport on a trafficway in which at least 1 person dies within 30 days of the crash as a result of that crash.

FATAL INJURY (air): Any injury that results in death within 30 days of the accident.

FATALITY: For purposes of statistical reporting on transportation safety, a fatality is considered a death due to injuries in a transportation crash, accident, or incident that occurs within 30 days of that occurrence.

FATALITY (rail): 1) Death of any person from an injury within 30 days of the accident or incident (may include nontrain accidents or incidents); or 2) death of a railroad employee from an occupational illness within 365 days after the occupational illness was diagnosed by a physician.

FATALITY (recreational boating): All deaths (other than deaths by natural causes) and missing persons resulting from an occurrence that involves a vessel or its equipment.

FATALITY (transit): A transit-caused death confirmed within 30 days of a transit incident. Incidents include collisions, derailments, personal casualties, and fires associated with tran-

sit agency revenue vehicles, transit facilities on transit property, service vehicles, maintenance areas, and rights-of-way.

FATALITY (water): All deaths and missing persons resulting from a vessel casualty.

FERRYBOAT (transit): Vessels that carry passengers and/or vehicles over a body of water. Generally steam or diesel-powered, ferryboats may also be hovercraft, hydrofoil, and other high-speed vessels. The vessel is limited in its use to the carriage of deck passengers or vehicles or both, operates on a short run on a frequent schedule between two points over the most direct water routes other than in ocean or coastwise service, and is offered as a public service of a type normally attributed to a bridge or tunnel.

FOSSIL FUELS: Any naturally occurring organic fuel formed in the Earth's crust, such as petroleum, coal, and natural gas.

FREIGHT REVENUE (rail): Revenue from the transportation of freight and from the exercise of transit, stopoff, diversion, and reconsignment privileges as provided for in tariffs.

FREIGHTERS (water): General cargo carriers, full containerships, partial containerships, roll-on/rolloff ships, and barge carriers.

GAS TRANSMISSION PIPELINES: Pipelines installed for the purpose of transmitting gas from a source or sources of supply to one or more distribution centers, or to one or more large volume customers; or a pipeline installed to interconnect sources of supply. Typically, transmission lines differ from gas mains in that they operate at higher pressures and the distance between connections is greater.

GASOLINE: A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to produce a fuel suitable for use in spark ignition

engines. Motor gasoline includes both leaded or unleaded grades of finished motor gasoline, blending components, and gasohol. Leaded gasoline is no longer used in highway motor vehicles in the United States.

GENERAL AVIATION: 1) All civil aviation operations other than scheduled air services and nonscheduled air transport operations for taxis, commuter air carriers, and air travel clubs that do not hold Certificates of Public Convenience and Necessity. 2) All civil aviation activity except that of air carriers certificated in accordance with Federal Aviation Regulations, Parts 121, 123, 127, and 135. The types of aircraft used in general aviation range from corporate multiengine jet aircraft piloted by professional crews to amateur-built single-engine piston-driven acrobatic planes to balloons and dirigibles.

GENERAL ESTIMATES SYSTEM (highway): A data-collection system that uses a nationally representative probability sample selected from all police-reported highway crashes. It began operation in 1988.

GROSS DOMESTIC PRODUCT (U.S.): The total output of goods and services produced by labor and property located in the United States, valued at market prices. As long as the labor and property are located in the United States, the suppliers (workers and owners) may be either U.S. residents or residents of foreign countries.

GROSS VEHICLE WEIGHT RATING (truck): The maximum rated capacity of a vehicle, including the weight of the base vehicle, all added equipment, driver and passengers, and all cargo.

HAZARDOUS MATERIAL: Any toxic substance or explosive, corrosive, combustible, poisonous, or radioactive material that poses a risk to the public's health, safety, or property, particularly when transported in commerce.

HEAVY RAIL (transit): An electric railway with the capacity to transport a heavy volume of passenger traffic and characterized by exclusive rights-of-way, multicar trains, high speed, rapid acceleration, sophisticated signaling, and high-platform loading. Also known as "subway," "elevated (railway)," or "metropolitan railway (metro)."

HIGHWAY-RAIL GRADE CROSSING (rail): A location where one or more railroad tracks are crossed by a public highway, road, street, or a private roadway at grade, including sidewalks and pathways at or associated with the crossing.

HIGHWAY TRUST FUND: A grant-in-aid type fund administered by the U.S. Department of Transportation, Federal Highway Administration. Most funds for highway improvements are apportioned to states according to formulas that give weight to population, area, and mileage.

HIGHWAY-USER TAX: A charge levied on persons or organizations based on their use of public roads. Funds collected are usually applied toward highway construction, reconstruction, and maintenance.

INCIDENT (hazardous materials): Any unintentional release of hazardous material while in transit or storage.

INCIDENT (train): Any event involving the movement of a train or railcars on track equipment that results in a death, a reportable injury, or illness, but in which railroad property damage does not exceed the reporting threshold.

INCIDENT (transit): Collisions, derailments, personal casualties, fires, and property damage in excess of \$1,000 associated with transit agency revenue vehicles; all other facilities on the transit property; and service vehicles, maintenance areas, and rights-of-way.

INJURY (air): See Serious Injury (air carrier/general aviation).

INJURY (gas): Described in U.S. Department of Transportation Forms 7100.1 or 7100.2 as an injury requiring “in-patient hospitalization” (admission and confinement in a hospital beyond treatment administered in an emergency room or out-patient clinic in which confinement does not occur).

INJURY (hazardous liquid pipeline): An injury resulting from a hazardous liquid pipeline accident that results in one or more of the following: 1) loss of consciousness, 2) a need to be carried from the scene, 3) a need for medical treatment, and/or 4) a disability that prevents the discharge of normal duties or the pursuit of normal duties beyond the day of the accident.

INJURY (highway): Police-reported highway injuries are classified as follows:

Incapacitating Injury: Any injury, other than a fatal injury, that prevents the injured person from walking, driving, or normally continuing the activities the person was capable of performing before the injury occurred. Includes severe lacerations, broken or distorted limbs, skull or chest injuries, abdominal injuries, unconsciousness at or when taken from the accident scene, and inability to leave the accident scene without assistance. Exclusions include momentary unconsciousness.

Nonincapacitating Evident Injury: Any injury, other than a fatal injury or an incapacitating injury, evident to observers at the scene of the accident. Includes lumps on head, abrasions, bruises, minor lacerations, and others. Excludes limping.

Possible Injury: Any injury reported or claimed that is not evident. Includes, among others, momentary unconsciousness, claim of injuries

not obvious, limping, complaint of pain, nausea, and hysteria.

INJURY (highway-rail grade crossing): 1) An injury to one or more persons other than railroad employees that requires medical treatment; 2) an injury to one or more employees that requires medical treatment or that results in restriction of work or motion for one or more days, or one or more lost work days, transfer to another job, termination of employment, or loss of consciousness; 3) any occupational illness affecting one or more railroad employees that is diagnosed by a physician.

INJURY (rail): 1) Injury to any person other than a railroad employee that requires medical treatment, or 2) injury to a railroad employee that requires medical treatment or results in restriction of work or motion for one or more workdays, one or more lost workdays, termination of employment, transfer to another job, loss of consciousness, or any occupational illness of a railroad employee diagnosed by a physician.

INJURY (recreational boating): Injury requiring medical treatment beyond first aid as a result of an occurrence that involves a vessel or its equipment.

INJURY (transit): Any physical damage or harm to a person requiring medical treatment or any physical damage or harm to a person reported at the time and place of occurrence. For employees, an injury includes incidents resulting in time lost from duty or any definition consistent with a transit agency’s current employee injury reporting practice.

INJURY (water): All personal injuries resulting from a vessel casualty that require medical treatment beyond first aid.

INLAND AND COASTAL CHANNELS: Includes the Atlantic Coast Waterways, the Atlantic Intracoastal Waterway, the New York State

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

INTERCITY CLASS I BUS: As defined by the Bureau of Transportation Statistics, an interstate motor carrier of passengers with an average annual gross revenue of at least \$1 million.

INTERCITY TRUCK: A truck that carries freight beyond local areas and commercial zones.

INTERNAL TRAFFIC (water): Vessel movements (origin and destination) that take place solely on inland waterways located within the boundaries of the contiguous 48 states or within the state of Alaska. Internal traffic also applies to carriage on both inland waterways and the water on the Great Lakes; carriage between offshore areas and inland waterways; and carriage occurring within the Delaware Bay, Chesapeake Bay, Puget Sound, and the San Francisco Bay, which are considered internal bodies of water rather than arms of the ocean.

INTERSTATE HIGHWAY: Limited access, divided highway of at least four lanes designated by the Federal Highway Administration as part of the Interstate System.

JET FUEL: Includes kerosene-type jet fuel (used primarily for commercial turbojet and turbo-prop aircraft engines) and naphtha-type jet fuel (used primarily for military turbojet and turbo-prop aircraft engines).

LAKELIKE OR GREAT LAKES TRAFFIC: Waterborne traffic between U.S. ports on the Great Lakes system. The Great Lakes system is treated as a separate waterways system rather than as a part of the inland system.

LARGE CERTIFICATED AIR CARRIER: An air carrier holding a certificate issued under section 401 of the Federal Aviation Act of 1958, as amended, that: 1) operates aircraft designed to have a maximum passenger capacity of more than 60 seats or a maximum payload capacity of more than 18,000 pounds, or 2) conducts operations where one or both terminals of a flight stage are outside the 50 states of the United States, the District of Columbia, the Commonwealth of Puerto Rico, and the U.S. Virgin Islands. Large certificated air carriers are grouped by annual operating revenues: 1) majors (more than \$1 billion in annual operating revenues), 2) nationals (between \$100 million and \$1 billion in annual operating revenues), 3) large regionals (between \$20 million and \$99,999,999 in annual operating revenues), and 4) medium regionals (less than \$20 million in annual operating revenues).

LARGE REGIONALS (air): Air carrier groups with annual operating revenues between \$20 million and \$99,999,999.

LARGE TRUCK: Trucks over 10,000 pounds gross vehicle weight rating, including single-unit trucks and truck tractors.

LIGHT-DUTY VEHICLE: A vehicle category that combines light automobiles and trucks.

LIGHT RAIL: A streetcar-type vehicle operated on city streets, semi-exclusive rights-of-way, or exclusive rights-of-way. Service may be provided by step-entry vehicles or by level boarding.

LIGHT TRUCK: Trucks of 10,000 pounds gross vehicle weight rating or less, including pickups, vans, truck-based station wagons, and sport utility vehicles.

LOCOMOTIVE: Railroad vehicle equipped with flanged wheels for use on railroad tracks, powered directly by electricity, steam, or fossil fuel, and used to move other railroad rolling equipment.

MAJORS (air): Air carrier groups with annual operating revenues exceeding \$1 billion.

MEDIUM REGIONALS (air): Air carrier groups with annual operating revenues less than \$20 million.

MERCHANDISE TRADE EXPORTS: Merchandise transported out of the United States to foreign countries whether such merchandise is exported from within the U.S. Customs Service territory, from a U.S. Customs bonded warehouse, or from a U.S. Foreign Trade Zone. (Foreign Trade Zones are areas, operated as public utilities, under the control of U.S. Customs with facilities for handling, storing, manipulating, manufacturing, and exhibiting goods.)

MERCHANDISE TRADE IMPORTS: Commodities of foreign origin entering the United States, as well as goods of domestic origin returned to the United States with no change in condition or after having been processed and/or assembled in other countries. Puerto Rico is a Customs district within the U.S. Customs territory, and its trade with foreign countries is included in U.S. import statistics. U.S. import statistics also include merchandise trade between the U.S. Virgin Islands and foreign countries even though the Islands are not officially a part of the U.S. Customs territory.

METHYL-TERTIARY-BUTYL-ETHER (MTBE): A colorless, flammable, liquid oxygenated hydrocarbon that contains 18.15 percent oxygen. It is a fuel oxygenate produced by reacting methanol with isobutylene.

MINOR ARTERIALS (highway): Roads linking cities and larger towns in rural areas. In urban areas, roads that link but do not penetrate neighborhoods within a community.

MOTORBUS (transit): A rubber-tired, self-propelled, manually steered bus with a fuel supply

onboard the vehicle. Motorbus types include intercity, school, and transit.

MOTORCYCLE: A two- or three-wheeled motor vehicle designed to transport one or two people, including motor scooters, minibikes, and mopeds.

NATIONALS (air): Air carrier groups with annual operating revenues between \$100 million and \$1 billion.

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

NONOCCUPANT (Automobile): Any person who is not an occupant of a motor vehicle in transport (e.g., bystanders, pedestrians, pedalcyclists, or an occupant of a parked motor vehicle).

NONSCHEDULED SERVICE (air): Revenue flights not operated as regular scheduled service, such as charter flights, and all nonrevenue flights incident to such flights.

NONSELF-PROPELLED VESSEL (water): A vessel without the means for self-propulsion. Includes dry cargo barges and tanker barges.

NONTRAIN INCIDENT: An event that results in a reportable casualty, but does not involve the movement of ontrack equipment and does not cause reportable damage above the threshold established for train accidents.

NONTRESPASSERS (rail): A person lawfully on any part of railroad property used in railroad operations or a person adjacent to railroad premises when injured as the result of railroad operations.

NONVESSEL-CASUALTY-RELATED DEATH (water): A death that occurs onboard a commer-

cial vessel but not as a result of a vessel casualty, such as a collision, fire, or explosion.

OCCUPANT (highway): Any person in or on a motor vehicle in transport. Includes the driver, passengers, and persons riding on the exterior of a motor vehicle (e.g., a skateboard rider holding onto a moving vehicle). Excludes occupants of parked cars unless they are double parked or motionless on the roadway.

OCCUPATIONAL FATALITY: Death resulting from a job-related injury.

OPERATING EXPENSES (air): Expenses incurred in the performance of air transportation, based on overall operating revenues and expenses. Does not include nonoperating income and expenses, nonrecurring items, or income taxes.

OPERATING EXPENSES (rail): Expenses of furnishing transportation services, including maintenance and depreciation of the plant used in the service.

OPERATING EXPENSES (transit): The total of all expenses associated with operation of an individual mode by a given operator. Includes distributions of “joint expenses” to individual modes and excludes “reconciling items,” such as interest expenses and depreciation. Should not be confused with “vehicle operating expenses.”

OPERATING EXPENSES (truck): Includes expenditures for equipment maintenance, supervision, wages, fuel, equipment rental, terminal operations, insurance, safety, and administrative and general functions.

OPERATING REVENUES (air): Revenues from the performance of air transportation and related incidental services. Includes 1) transportation revenues from the carriage of all classes of traffic in scheduled and nonscheduled services, and 2) nontransportation revenues consisting of federal

subsidies (where applicable) and services related to air transportation.

OTHER FREEWAYS AND EXPRESSWAYS (highway): All urban principal arterials with limited access but not part of the Interstate system.

OTHER PRINCIPAL ARTERIALS (highway): Major streets or highways, many of multi-lane or freeway design, serving high-volume traffic corridor movements that connect major generators of travel.

OTHER RAIL REVENUE: Includes revenues from miscellaneous operations (i.e., dining- and bar-car services), income from the lease of road and equipment, miscellaneous rental income, income from nonoperating 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.

OTHER REVENUE VEHICLES (transit): Other revenue-generating modes of transit service, such as cable cars, personal rapid transit systems, monorail vehicles, inclined and railway cars, not covered otherwise.

OTHER 2-AXLE 4-TIRE VEHICLES (truck): Includes vans, pickup trucks, and sport utility vehicles.

PASSENGER CAR: A motor vehicle designed primarily for carrying passengers on ordinary roads, includes convertibles, sedans, and station wagons.

PASSENGER-MILE: 1) Air: One passenger transported 1 mile; passenger-miles for 1 inter-airport flight are calculated by multiplying aircraft-miles flown by the number of passengers carried on the flight. The total passenger-miles for all flights is the sum of passenger-miles for all interairport flights. 2) Auto: One passenger

traveling 1 mile; e.g., 1 car transporting 2 passengers 4 miles results in 8 passenger-miles. 3) Transit: The total number of miles traveled by transit passengers; e.g., 1 bus transporting 5 passengers 3 miles results in 15 passenger-miles.

PASSENGER REVENUE: 1) Rail: Revenue from the sale of tickets. 2) Air: Revenues from the transport of passengers by air. 3) Transit: Fares, transfer, zone, and park-and-ride parking charges paid by transit passengers. Prior to 1984, fare revenues collected by contractors operating transit services were not included.

PASSENGER VESSELS (water): A vessel designed for the commercial transport of passengers.

PEDALCYCLIST: A person on a vehicle that is powered solely by pedals.

PEDESTRIAN: Any person not in or on a motor vehicle or other vehicle. Excludes people in buildings or sitting at a sidewalk cafe. The National Highway Traffic Safety Administration also uses an "other pedestrian" category to refer to pedestrians using conveyances and people in buildings. Examples of pedestrian conveyances include skateboards, nonmotorized wheelchairs, rollerskates, sleds, and transport devices used as equipment.

PERSON-MILES: An estimate of the aggregate distances traveled by all persons on a given trip based on the estimated transportation-network-miles traveled on that trip.

PERSON TRIP: A trip taken by an individual. For example, if three persons from the same household travel together, the trip is counted as one household trip and three person trips.

PERSONAL CASUALTY (transit): 1) An incident in which a person is hurt while getting on or off a transit vehicle (e.g., falls or door incidents), but not as a result of a collision, derailment/left roadway, or fire. 2) An incident in

which a person is hurt while using a lift to get on or off a transit vehicle, but not as a result of a collision, derailment/left roadway, or fire. 3) An incident in which a person is injured on a transit vehicle, but not as a result of a collision, derailment/left roadway, or fire. 4) An incident in which a person is hurt while using a transit facility. This includes anyone on transit property (e.g., patrons, transit employees, trespassers), but does not include incidents resulting from illness or criminal activity.

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

PROPERTY DAMAGE (transit): The dollar amount required to repair or replace transit property (including stations, right-of-way, bus stops, and maintenance facilities) damaged during an incident.

PUBLIC ROAD: Any road under the jurisdiction of and maintained by a public authority (federal, state, county, town or township, local government, or instrumentality thereof) and open to public travel.

RAPID RAIL TRANSIT: Transit service using railcars driven by electricity usually drawn from a third rail, configured for passenger traffic, and usually operated on exclusive rights-of-way. It generally uses longer trains and has longer station spacing than light rail.

REVENUE: Remuneration received by carriers for transportation activities.

REVENUE PASSENGER: 1) Air: Person receiving air transportation from an air carrier for which remuneration is received by the carrier. Air carrier employees or others, except ministers of religion, elderly individuals, and handicapped

individuals, receiving reduced rate charges (less than the applicable tariff) are considered non-revenue passengers. Infants, for whom a token fare is charged, are not counted as passengers. 2) Transit: Single-vehicle transit rides by initial-board (first-ride) transit passengers only. Excludes all transfer rides and all nonrevenue rides. 3) Rail: Number of one-way trips made by persons holding tickets.

REVENUE PASSENGER ENPLANEMENTS (air): The total number of passengers boarding aircraft. Includes both originating and connecting passengers.

REVENUE PASSENGER LOAD FACTOR (air): Revenue passenger-miles as a percentage of available seat-miles in revenue passenger services. The term is used to represent the proportion of aircraft seating capacity that is actually sold and utilized.

REVENUE PASSENGER-MILE: One revenue passenger transported one mile.

REVENUE PASSENGER TON-MILE (air): One ton of revenue passenger weight (including all baggage) transported one mile. The passenger weight standard for both domestic and international operations is 200 pounds.

REVENUE TON-MILE: One short ton of freight transported one mile.

REVENUE VEHICLE-MILES (transit): One vehicle (bus, trolley bus, or streetcar) traveling one mile, while revenue passengers are on board, generates one revenue vehicle-mile. Revenue vehicle-miles reported represent the total mileage traveled by vehicles in scheduled or unscheduled revenue-producing services.

ROLL ON/ROLL OFF VESSEL (water): Ships that are designed to carry wheeled containers or other wheeled cargo and use the roll on/roll off method for loading and unloading.

RURAL HIGHWAY: Any highway, road, or street that is not an urban highway.

RURAL MILEAGE (highway): Roads outside city, municipal district, or urban boundaries.

SCHEDULED SERVICE (air): Transport service operated on published flight schedules.

SCHOOL BUS: A passenger motor vehicle that is designed or used to carry more than 10 passengers, in addition to the driver, and, as determined by the Secretary of Transportation, is likely to be significantly used for the purpose of transporting pre-primary, primary, or secondary school students between home and school.

SCHOOL BUS-RELATED CRASH: Any crash in which a vehicle, regardless of body design and used as a school bus, is directly or indirectly involved, such as a crash involving school children alighting from a vehicle.

SELF-PROPELLED VESSEL: A vessel that has its own means of propulsion. Includes tankers, containerships, dry bulk cargo ships, and general cargo vessels.

SERIOUS INJURY (air carrier/general aviation): An injury that requires hospitalization for more than 48 hours, commencing within 7 days from the date when the injury was received; results in a bone fracture (except simple fractures of fingers, toes, or nose); involves lacerations that cause severe hemorrhages, or nerve, muscle, or tendon damage; involves injury to any internal organ; or involves second- or third-degree burns or any burns affecting more than 5 percent of the body surface.

SMALL CERTIFICATED AIR CARRIER: An air carrier holding a certificate issued under section 401 of the Federal Aviation Act of 1958, as amended, that operates aircraft designed to have a maximum seating capacity of 60 seats or

fewer or a maximum payload of 18,000 pounds or less.

STATE AND LOCAL HIGHWAY EXPENDITURES: Disbursements for capital outlays, maintenance and traffic surfaces, administration and research, highway law enforcement and safety, and interest on debt.

SUPPLEMENTAL AIR CARRIER: An air carrier authorized to perform passenger and cargo charter services.

TANKER: An oceangoing ship designed to haul liquid bulk cargo in world trade.

TON-MILE (truck): The movement of one ton of cargo the distance of one mile. Ton-miles are calculated by multiplying the weight in tons of each shipment transported by the miles hauled.

TON-MILE (water): The movement of one ton of cargo the distance of one statute mile. Domestic ton-miles are calculated by multiplying tons moved by the number of statute miles moved on the water (e.g., 50 short tons moving 200 miles on a waterway would yield 10,000 ton-miles for that waterway). Ton-miles are not computed for ports. For coastwise traffic, the shortest route that safe navigation permits between the port of origin and destination is used to calculate ton-miles.

TRAIN LINE MILEAGE: The aggregate length 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.

TRAIN-MILE: The movement of a train, which can consist of many cars, the distance of one mile. A train-mile differs from a vehicle-mile, which is the movement of one car (vehicle) the distance of one mile. A 10-car (vehicle) train traveling 1 mile is measured as 1 train-mile and 10 vehicle-

miles. Caution should be used when comparing train-miles to vehicle-miles.

TRANSIT VEHICLE: Includes light, heavy, and commuter rail; motorbus; trolley bus; van pools; automated guideway; and demand responsive vehicles.

TRANSSHIPMENTS: Shipments that enter or exit the United States by way of a U.S. Customs port on the northern or southern border, but whose origin or destination is a country other than Canada or Mexico.

TRESPASSER (rail): Any person whose presence on railroad property used in railroad operations is prohibited, forbidden, or unlawful.

TROLLEY BUS: Rubber-tired electric transit vehicle, manually steered and propelled by a motor drawing current, normally through overhead wires, from a central power source.

TRUST FUNDS: Accounts that are designated by law to carry out specific purposes and programs. Trust Funds are usually financed with earmarked tax collections.

TUG BOAT: A powered vessel designed for towing or pushing ships, dumb barges, pushed-towed barges, and rafts, but not for the carriage of goods.

U.S.-FLAG CARRIER OR AMERICAN FLAG CARRIER (air): One of a class of air carriers holding a Certificate of Public Convenience and Necessity, issued by the U.S. Department of Transportation and approved by the President, authorizing scheduled operations over specified routes between the United States (and/or its territories) and one or more foreign countries.

UNLEADED GASOLINE: See Gasoline.

UNLINKED PASSENGER TRIPS (transit): The number of passengers boarding public transportation vehicles. A passenger is counted each

time he/she boards a vehicle even if the boarding is part of the same journey from origin to destination.

URBAN HIGHWAY: Any road or street within the boundaries of an urban area. An urban area is an area including and adjacent to a municipality or urban place with a population of 5,000 or more. The boundaries of urban areas are fixed by state highway departments, subject to the approval of the Federal Highway Administration, for purposes of the Federal-Aid Highway Program.

VANPOOL (transit): Public-sponsored commuter service operating under prearranged schedules for previously formed groups of riders in 8- to 18-seat vehicles. Drivers are also commuters who receive little or no compensation besides the free ride.

VEHICLE MAINTENANCE (transit): All activities associated with revenue and nonrevenue (service) vehicle maintenance, including administration, inspection and maintenance, and servicing (e.g., cleaning and fueling) vehicles. In addition, it includes repairs due to vandalism or to revenue vehicle accidents.

VEHICLE-MILES (highway): Miles of travel by all types of motor vehicles as determined by the states on the basis of actual traffic counts and established estimating procedures.

VEHICLE-MILES (transit): The total number of miles traveled by transit vehicles. Commuter rail, heavy rail, and light rail report individual car-miles, rather than train-miles for vehicle-miles.

VEHICLE OPERATIONS (transit): All activities associated with transportation administration, including the control of revenue vehicle movements, scheduling, ticketing and fare collection, system security, and revenue vehicle operation.

VESSEL CASUALTY (water): An occurrence involving commercial vessels that results in 1) actual physical damage to property in excess of \$25,000; 2) material damage affecting the seaworthiness or efficiency of a vessel; 3) stranding or grounding; 4) loss of life; or 5) injury causing any person to remain incapacitated for a period in excess of 72 hours, except injury to harbor workers not resulting in death and not resulting from vessel casualty or vessel equipment casualty.

VESSEL-CASUALTY-RELATED DEATH (water): Fatality that occurs as a result of an incident that involves a vessel or its equipment, such as a collision, fire, or explosion. Includes drowning deaths.

WATERBORNE TRANSPORTATION: Transport of freight and/or people by commercial vessels under U.S. Coast Guard jurisdiction.

Appendix B: Social and Economic Characteristics of the United States

	1980	1985	1990	1995	2000	2005
Total U.S. Resident Population (thousands)	227,225	237,924	249,623	266,278	282,193	296,410
Population by age (thousands)						
Under 18	63,754	62,623	63,949	69,465	72,307	73,470
18-24 years	30,022	28,902	26,961	25,482	27,141	29,307
25-34 years	37,082	41,696	43,174	45,052	39,895	40,143
35-44 years	25,634	31,691	37,444	42,711	45,150	43,863
45-54 years	22,800	22,460	25,062	31,480	37,674	42,483
55-64 years	21,703	22,135	21,116	21,320	24,273	30,356
65 and over	25,550	28,415	31,084	33,769	34,992	36,790
Population by sex (thousands)						
Male	110,053	115,730	121,284	130,215	138,056	146,000
Female	116,493	122,194	127,507	136,063	143,368	150,411
Population in Metropolitan areas (millions)						
Large (over 1 million)	119	U	139	147	149	U
Medium (250,000-999,999)	41	U	41	44	56	U
Small (less than 250,000)	17	U	18	19	28	U
Population in Regions (millions)						
Northeast	49.1	49.9	50.8	52.3	53.6	54.6
South	75.4	81.4	85.5	93.2	100.2	107.5
Midwest	58.9	58.8	59.7	62.5	64.4	66.0
West	43.2	47.8	52.8	58.3	63.2	68.3
Immigrants admitted (thousands)	531	570	1,536	720	841	1,122
Gross domestic product (chained \$ 2000 billions)	5,162	6,054	7,113	8,032	9,817	11,135
Civilian labor force (thousands)	106,940	115,461	125,840	132,304	142,583	149,320
Participation rate of men (%)	77.4	76.3	76.4	75.0	74.8	73.3
Participation rate of women (%)	51.5	54.5	57.5	58.9	59.9	59.3
Unemployment rate (% of labor force)	7.1	7.2	5.6	5.6	4.0	5.1
Households (thousands)	80,776	86,789	93,347	98,990	104,705	113,343
Average size of households	2.76	2.69	2.63	2.65	2.62	2.57
Median household income (constant \$ 2005)	39,739	40,868	43,366	43,346	47,599	46,326
Average household expenditures (constant \$ 2004)	U	41,238	41,019	39,991	41,735	U

Appendix B Social and Economic Characteristics of the United States (continued)

KEY: U= data are unavailable.

NOTES: *Resident population* estimates are as of July 1 except 1980, 1990, and 2000, which are as of April 1. New *metropolitan area* definitions were published by the Office of Budget and Management (OMB) in 2003. These definitions were applied to population data by the Census Bureau beginning with the data from the 2000 Census. A new term, core based statistical areas (CBSAs), collectively refers to metropolitan and micropolitan statistical areas. A metropolitan statistical area is defined as having at least one urbanized area of 50,000 or more inhabitants. A micropolitan statistical area is defined as having at least one urban cluster of more than 10,000 but less than 50,000 inhabitants.

Number of immigrants is based on fiscal year data ending September 30.

Median household income and *average household expenditures* were converted to constant 2004 dollars using the CPI-U-RS price index.

SOURCES: U.S. resident population—U.S. Census Bureau, Statistical Abstract of the United States 2006 (Washington, DC: 2006), table 2. **Population by age, Population by sex**—U.S. Census Bureau, Statistical Abstract of the United States (Washington, DC: various years), table 11. **Population by metropolitan area**— 2000-04: U.S. Census Bureau, Population Division, Annual Estimates of the Population of Metropolitan and Micropolitan Statistical Areas (Washington, DC: January 2006), table 1, Internet site http://www.census.gov/population/www/estimates/Estimates%20pages_final.html as of Mar. 7, 2006. **Population in regions**— U.S. Census Bureau, Statistical Abstract of the United States 2006 (Washington, DC: 2006), table 17.

Number of immigrants admitted—U.S. Census Bureau, Statistical Abstract of the United States (Washington, DC: various years), table 5.

Gross Domestic Product— U.S. Census Bureau, Statistical Abstract of the United States 2006 (Washington, DC: 2006), table 650.

Civilian Labor Force, Unemployment Rate— U.S. Census Bureau, Statistical Abstract of the United States 2006 (Washington, DC: 2006), table 576. **Participation of Men and Women**—

Number of households, Average size of households—U.S. Department of Commerce, Bureau of the Census, Current Population Survey, Table HH-6, Average Population Per Household and Family: 1940 to Present, Internet site <http://www.census.gov/population/socdemo/hh-fam/hh6.pdf> as of August 2006.

Median household income— U.S. Department of Labor, Bureau of the Census, *Current Population Survey*, Table H-5, Race and Hispanic Origin of Householder--Households by Median and Mean Income: 1967 to 2004, Internet site <http://www.bls.gov/cex/2004/standard/multiyr.pdf> as of Jan. 16, 2006. **Average household expenditures**— U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Expenditure Survey*, Average Annual Expenditures, All Consumer Units, Internet site <http://www.bls.gov/data/home.htm> as of Mar. 7 2006.

