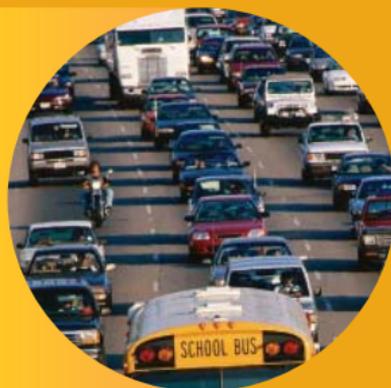


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January 2007

Pocket Guide to Transportation

**Bureau of
Transportation
Statistics**

**Research and Innovative
Technology Administration**

**U.S. Department of
Transportation**



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America's transportation system continues to change along with the population, work force, and economy. The following table puts those changes in perspective:

Context	1980	2005
Resident population (thous.)	226,542	296,410
Total area (thous. sq. mi.) ^a	3,619	3,794 (2000)
Total civilian labor force (thous.)	106,940	149,320
Real gross domestic product ^b	\$5.2 trillion	\$11.0 trillion
Median household income ^{b,d}	\$34,007	\$41,475
Average household income ^{b,d}	\$40,445	\$56,108
Average household expenditures ^{b,c}	\$33,915 (1984)	\$41,625
Number of households (thous.)	80,776	111,091
Life expectancy at birth (years)	73.7	77.5 (2003)

^a 1980 data include inland water only. Data for 2000 include inland water, coastal water, Great Lakes, and territorial water. The Census Bureau tabulates area data for the decennial census years only.

^b 2000 chained dollars (see Glossary for definition).

^c Earliest year available is 1984.

^d BTS computations, November 2006.

Sources: **Area**—U.S. Department of Commerce (USDOC), U.S. Census Bureau, *Statistical Abstract of the United States: 2006*, available at www.census.gov, as of Nov. 2006. **GDP**—USDOC, Bureau of Economic Analysis, available at www.bea.gov, as of Oct. 2006. **Population, number of households, median and average household income**—USDOC, Census, available at www.census.gov, as of Oct. 2006. **Average household expenditures, labor force**—U.S. Department of Labor, Bureau of Labor Statistics, available at www.bls.gov, as of Nov. 2006. **Life expectancy**—Centers for Disease Control and Prevention, *United States Life Tables 2003*, Volume 54, Number 14, available at www.cdc.gov, as of Oct. 2006.

The U.S. transportation system is an extensive, inter-related public and private network of roads, airports, railroads, transit routes, waterways, terminals, ports, and pipelines. Millions of people and businesses rely on this expanding system to get to work, embark on vacations, conduct business, and ship goods within the United States and abroad. The transportation system links regions and connects small and large cities and urban and rural areas.

I-1

The Transportation Network: 2005

Mode	Components
Highway	Public roads
	46,873 miles of Interstate highway
	115,500 miles of other National Highway System roads
	3,849,259 miles of other roads
Air	Public-use airports
	5,270 airports
	Airports serving large certificated carriers
	26 large hub areas ^a (69 airports), 484 million enplaned passengers
	37 medium hub areas (60 airports), 141 million enplaned passengers
	66 small hub areas (82 airports), 53 million enplaned passengers
	930 nonhub areas (968 airports), 23 million enplaned passengers
Rail	Miles of railroad operated
	95,664 miles by Class I freight railroads in the United States ^b
	15,388 miles by regional freight railroads
	29,197 miles by local freight railroads
	23,000 miles by Amtrak (passenger) ^c (2004)

Urban transit (2004)	Directional route-miles^d
	Bus: 165,854 ^e Trolley bus: 425 Commuter rail: 4,407 Heavy rail: 1,596 Light rail: 1,097
	Stations
	Commuter rail: 1,153 Heavy rail: 1,023 Light rail: 723
Water	Navigable channels: 26,000 miles (2003)
	Ferry routes^f: 623 directional route miles (2004)
	Commercial waterway facilities^a (2004)
	Great Lakes: 600 deep-draft 154 shallow-draft Inland: 2,320 shallow-draft Ocean: 4,298 deep-draft 1,761 shallow-draft Locks: 257
Pipeline	Oil
	Crude lines: 60,043 miles of pipe Product lines: 71,310 miles of pipe
	Gas (2004)
	Transmission: 298,900 miles of pipe Distribution: 1,139,800 miles of pipe

^a See Glossary for definitions. ^b There are also 1,368 miles of railroad operated within the U.S. Class I freight railroad system that are owned by Canadian railroads. ^c The Amtrak mileage includes the 745 miles of trackage it owns and route-miles operated on the tracks of the freight railroads.

^d Directly operated service. Does not include contracted service.

^e Includes directional route-miles on exclusive right-of-way, controlled right-of-way, and mixed traffic.

Sources: Various sources, as cited in USDOT, RITA, BTS, *National Transportation Statistics*, available at <http://www.bts.gov>; Association of American Railroads, *Railroad Facts, 2006* (Washington, DC: 2006); USDOT, Federal Highway Administration, *Highway Statistics 2005* (Washington, DC: 2006), table HM-18; *Oil & Gas Journal*, Sept. 11, 2006; USDOT, Federal Transit Administration, *2004 National Transit Summaries and Trends*, tables 21, 23, and 24, available at <http://www.ntdprogram.com/ntdprogram/pubs.htm>; USDOT, RITA, BTS, "Airport Activity Statistics of Certificated Air Carriers, Summary Tables, 12 Months Ending Dec. 31, 2005," 2005; U.S. Army Corps of Engineers, Institute for Water Resources, Navigation Data Center, *The U.S. Waterway System Facts, December 2005* (Alexandria, VA: 2005).

The safety of the traveling public is of major concern for the U.S. Department of Transportation. Although progress has been made in reducing fatalities, roughly 43 percent of U.S. deaths due to unintentional injury involve transportation. Roughly 96 percent of transportation fatalities arise from motor vehicle crashes.

2-1

Transportation Fatalities by Mode

Mode	1980	1990	2000	2005
Air				
Large U.S. air carrier ^a	1	39	92	^P 22
Commuter air carrier ^a	37	6	5	^P 0
On-demand air taxi ^a	105	51	71	^P 18
General aviation ^a	1,239	770	596	^P 562
Highway ^b	51,091	44,599	41,945	43,443
Pipeline, gas and hazardous liquid	19	9	38	19
Railroad ^c	584	599	512	535
Transit ^d	N	339	295	183
Waterborne				
Commercial vessel				
Vessel related, commercial ship	206	85	53	U
Nonvessel-related ^e , commercial ship	281	101	134	U
Recreational boating	1,360	865	701	697

^a Includes people on planes and on the ground. ^b Includes motor vehicle occupants, nonoccupants, and fatalities at railroad crossings.

^c Includes fatalities from nontrain incidents as well as train incidents and accidents. Also includes train occupants and nonoccupants except motor vehicle occupants at grade crossings. ^d Fatalities resulting from all reportable incidents, not just accidents. Includes commuter rail, heavy rail, light rail, motorbus, demand response, van pool, and automated guideway. ^e Fatalities unrelated to vessel accidents, e.g., individual falling overboard and drowning.

Key: N = data are nonexistent or not cited because of reporting changes; P = preliminary; U = unavailable.

Sources: Various sources, as cited in USDOT, RITA, BTS, *National Transportation Statistics*, table 2-1, available at <http://www.bts.gov>, as of September 2006. **2005—Highway:** USDOT, National Highway Traffic Safety Administration, National Center for Statistics and Analysis, personal communication, October 2006; **Transit:** USDOT, Volpe Center, personal communication, October 2006; **Recreational boating:** U.S. Department of Homeland Security, Coast Guard, *Boating Statistics 2005*, available at <http://www.uscgboating.org/statistics/stats.htm>, as of September 2006.

Distribution of Transportation Fatalities: 2004

Category	Number	%
Passenger car occupants	19,091	42.6
Light-truck occupants	12,602	28.1
Pedestrians struck by motor vehicles	4,641	10.4
Motorcyclists	4,008	8.9
Large-truck occupants	761	1.7
Pedalcyclists struck by motor vehicles	725	1.6
Recreational boating	676	1.5
Other or unknown motor vehicle occupants	639	1.4
General aviation	558	1.2
Railroad trespassers (excl. grade crossings) ^a	482	1.1
Other nonoccupants struck by motor vehicles ^b	128	0.29
Grade crossings, not involving motor vehicles ^a	83	0.19
Air taxi	64	0.14
Heavy-rail transit (e.g., subway)	59	0.13
Waterborne transportation (nonvessel-related)	57	0.13
Bus occupants (school, intercity, transit)	41	0.09
Waterborne transportation (vessel-related)	36	0.08
Private grade crossings, with motor vehicles ^a	33	0.07
Rail employees on duty and contractors ^a	25	0.06
Light-rail transit	22	0.05
Rail-related, not otherwise specified ^a	20	0.04
Gas distribution pipelines	18	0.04
Transit buses, not accident-related	16	0.04
Air carriers	14	0.03
Hazardous liquid pipelines	5	0.01
Passengers on railroad trains	3	<0.01
Total, all modes	44,807	100
Other counts, redundant with above		
Large-truck occupants and nonoccupants		5,190
Public grade crossings, with motor vehicles ^c		252
Commuter rail ^{a,d}		86
Transit buses, accident-related ^e		61
Outside planes in crashes ^f		1

^a Unless otherwise specified, rail categories include fatalities outside trains.

^b Includes all nonoccupant fatalities in motor vehicle (MV) crashes, except pedalcyclists and pedestrians.

^c Fatalities at grade crossings with MVs are included under relevant MV modes above.

^d Commuter rail fatalities are counted under various rail categories above.

^e Transit bus and demand-response occupant fatalities are counted under "bus," and nonoccupant fatalities are counted under "pedestrians," "pedalcyclists," or other MV categories. ^f Includes nonoccupant fatalities in aviation accidents.

Sources: Various sources as cited in USDOT, RITA, BTS, National Transportation Statistics, table 2-4, available at <http://www.bts.gov>, as of October 2006.

Fatalities by Number of Motor Vehicles in Crash and by Alcohol Involvement: 2005

Crash category	Number of fatalities in category	Alcohol involvement^a	Percent^b
Occupants	37,594	14,370	38
Single-vehicle crashes	18,806	9,016	48
Two-vehicle crashes	15,649	4,449	28
More than two-vehicle crashes	3,139	905	29
Pedestrians	4,881	2,180	45
Single-vehicle crashes	4,443	1,946	44
Multiple-vehicle crashes	438	234	53
Pedalcyclists	784	281	36
Single-vehicle crashes	755	268	35
Multiple-vehicle crashes	29	14	48
Others/unknown	184	54	29
Total	43,443	16,885	39

^a Fatalities in crash category that involve alcohol.

^b Percentage of fatalities in crash category that involve alcohol.

Notes: Numbers may not add to totals due to rounding.

A motor vehicle crash is considered to be alcohol-related if at least one driver or nonoccupant (such as a pedestrian or pedalcyclist) involved in the crash is determined to have had a blood alcohol concentration of 0.01 grams per deciliter or greater.

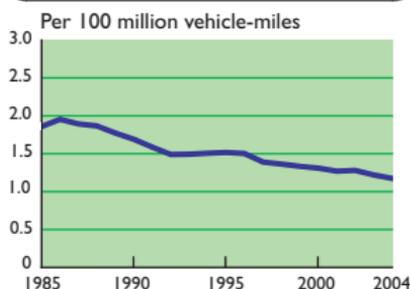
The National Highway Traffic Safety Administration estimates alcohol involvement when test results are unknown.

Source: U.S. Department of Transportation, National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS) database, personal communication, October 2006.

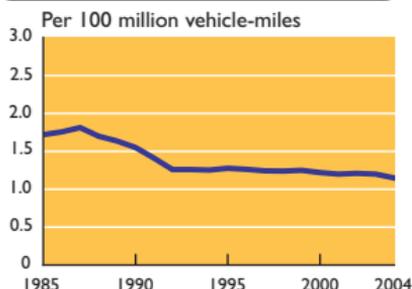
2-4

Fatality Rates for Selected Modes

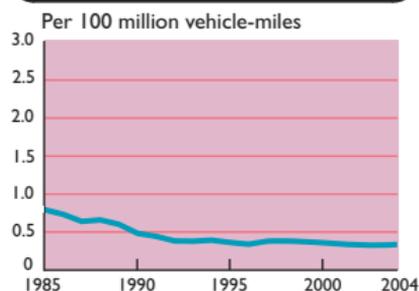
Passenger car occupants



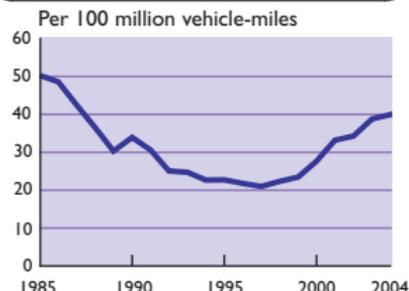
Light-truck occupants



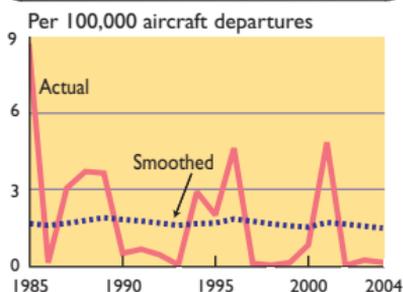
Large-truck occupants



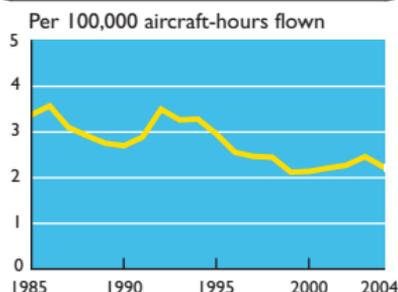
Motorcycle riders



Air carriers (actual and smoothed fatality rates)



General aviation



Notes: Air carrier data were smoothed using an exponential smoothing model, with a weight of 0.945 to reduce the year-to-year fluctuations.

Air carrier fatalities resulting from the Sept. 11, 2001, terrorist attacks include only those persons onboard aircraft.

Sources: U.S. Department of Transportation (USDOT), National Highway Traffic Safety Administration, National Center for Statistics and Analysis, *Traffic Safety Facts 2004* tables 7-10, as of March 2006.

Air carriers and general aviation—USDOT, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, tables 2-9 and 2-14, available at <http://www.bts.gov>, as of September 2006.

2-5

Injured Persons by Transportation Mode

Mode	1980	1990	2000	2005
Air				
Large U.S. air carrier	19	29	29	13
Commuter air carrier	14	11	7	0
On-demand air taxi	43	36	12	23
General aviation	681	409	309	270
Highway ^a	N	3,230,000	3,189,000	^P 2,675,000
Pipeline, gas and hazardous liquid	192	76	81	47
Railroad ^b	58,696	22,736	10,424	8,116
Transit ^c	N	54,556	56,697	U
Waterborne				
Vessel-related commercial ship	180	175	130	U
Nonvessel related ^d commercial ship	U	U	567	U
Recreational boating	2,650	3,822	4,355	3,451

^a Includes passenger car occupants, motorcyclists, light-duty and large-truck occupants, bus occupants, occupants of unknown vehicle types, and pedestrians, pedalcyclists, and other nonmotorists.

^b Injuries resulting from train accidents, train and nontrain incidents, and occupational illness. Includes Amtrak. Also includes train occupants and nonoccupants except motor vehicle occupants at grade crossings.

^c Injuries resulting from all reportable incidents, not just from accidents. Includes commuter rail, heavy rail, light rail, motorbus, demand response, van pool, and automated guideway.

^d Injuries unrelated to vessel accidents, e.g., an individual getting a cut while onboard a vessel.

Key: N = data are nonexistent; P = preliminary; U = unavailable.

Note: Each mode may use different reporting criteria for injuries.

Sources: Except as noted, various sources, as cited in U.S. Department of Transportation (USDOT), Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 2-2, available at <http://www.bts.gov>, forthcoming. **2005 highway**—USDOT, National Highway Traffic Safety Administration, National Center for Statistics and Analysis, personal communication, October 2006. **2005 recreational boating**—U.S. Coast Guard, Boating Statistics 2005 (annual issues), available at <http://www.uscgboating.org/>, as of October 2006.

Hazardous Materials Transportation Incidents, Injuries and Fatalities

	1990	1995	2000	2004	2005
Highway	7,297	12,869	15,063	^R13,101	13,352
Accident related	249	253	^R 329	^R 283	304
Injuries	311	296	164	^R 158	171
Fatalities	8	7	16	^R 14	24
Rail	1,279	1,155	1,058	^R773	738
Accident related	48	50	62	^R 46	50
Injuries	73	71	82	^R 122	685
Fatalities	0	0	0	3	10
Air	297	817	1,419	995	1,654
Accident related	0	0	^R 3	0	9
Injuries	39	33	5	^R 11	78
Fatalities	0	0	0	0	0
Water	7	12	17	^R17	68
Accident related	0	0	0	0	0
Injuries	0	0	0	0	0
Fatalities	0	0	0	0	0

Pipeline	1990	1995	2000	2004	2005
Liquid	180	188	146	^R142	137
Injuries	7	11	4	^R 16	2
Fatalities	3	3	1	5	2
Natural gas distribution	109	97	154	^R175	172
Injuries	52	43	59	41	38
Fatalities	6	16	22	18	14
Natural gas transmission	89	64	80	^R122	182
Injuries	17	10	18	3	7
Fatalities	0	2	15	^R 0	0

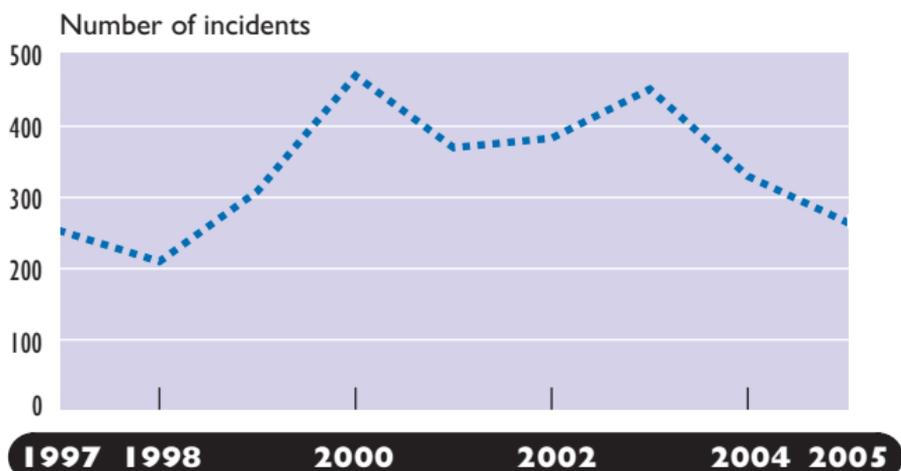
Key: R = Revised

Notes: Accident related excludes human errors, package failures, and unreported cases. Water data are for incidents involving packaged materials only and do not include incidents where the vessel is the container (e.g., a barge or oil tanker). Nonpipeline reporting requirements changed in 2002.

Sources: USDOT, Pipeline and Hazardous Materials Safety Administration (PHMSA), Hazardous Materials Information System Database. **1990 data**—available at http://hazmat.dot.gov/pubs/biennial/96_97biennial.rpt.pdf, as of December 2005. **1995–2005 data**—available at <http://hazmat.dot.gov/pubs/inc/data/2005/2005frm.htm>, as of August 2006. **Pipeline data**—USDOT, PHMSA, Office of Pipeline Safety, available at <http://ops.dot.gov/stats/stats.htm>, as of August 2006.

Ensuring security of all transportation systems and the people who use them is a national priority. While much of the initial national focus after the September 11, 2001, terrorist attacks was on aircraft and airports, attention is also directed at other modes, including rail, water, highways, and pipelines. Another security issue is the U.S. dependency on foreign sources of oil. The U.S. transportation sector remains almost entirely dependent on petroleum as an energy source and nearly two-thirds of the petroleum used in the United States is currently imported.

3-1 International Piracy and Armed Robbery at Sea



Note: Incidents include attempts and threatening actions.

Source: International Maritime Organization, *Annual Report (various years)*, available at <http://www.imo.org/home.asp>, as of March 2006.

Prohibited Items Intercepted at U.S. Airport Screening Checkpoints: 2003–2005

Items	2003	2004	2005
Other cutting instruments	2,973,413	3,567,731	3,276,941
Knives	1,961,849	2,058,652	1,822,888
Incendiaries and explosive/ flammable materials	494,123	693,649	407,086
Clubs	25,139	28,813	20,531
Box cutters	20,991	22,350	21,319
Firearms	683	650	2,217
Other	638,414	717,754	10,358,159
Total prohibited items	6,114,612	7,089,599	15,909,141

Notes: 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.

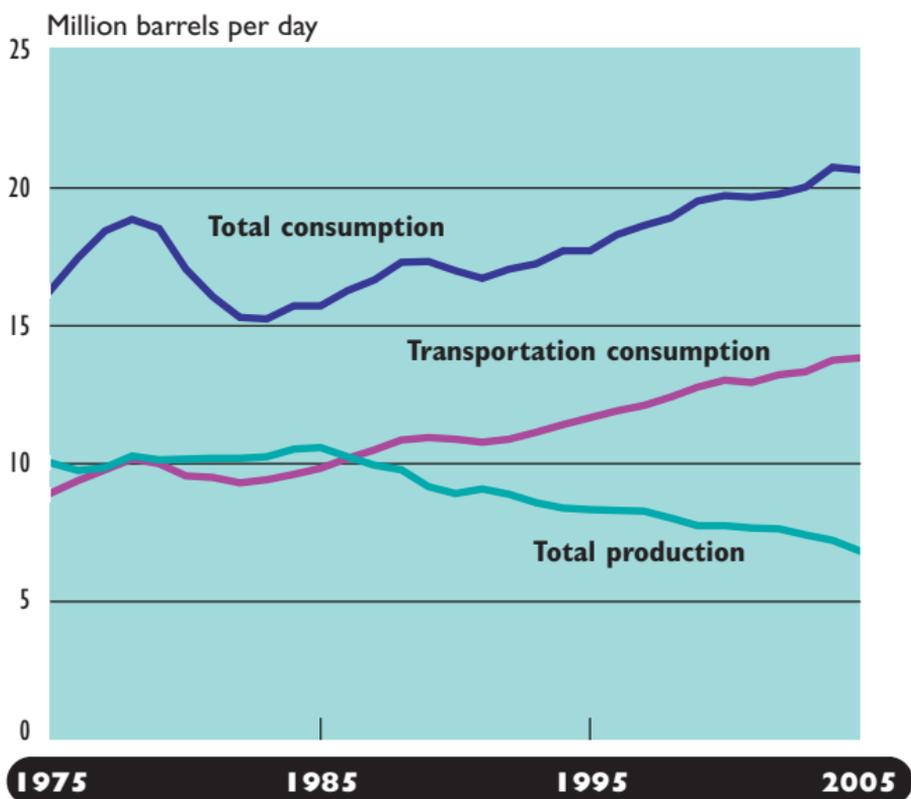
Clubs includes martial arts items, baseball bats, night sticks, hammers, pool cues, and billy clubs.

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, personal communication, November 2006.

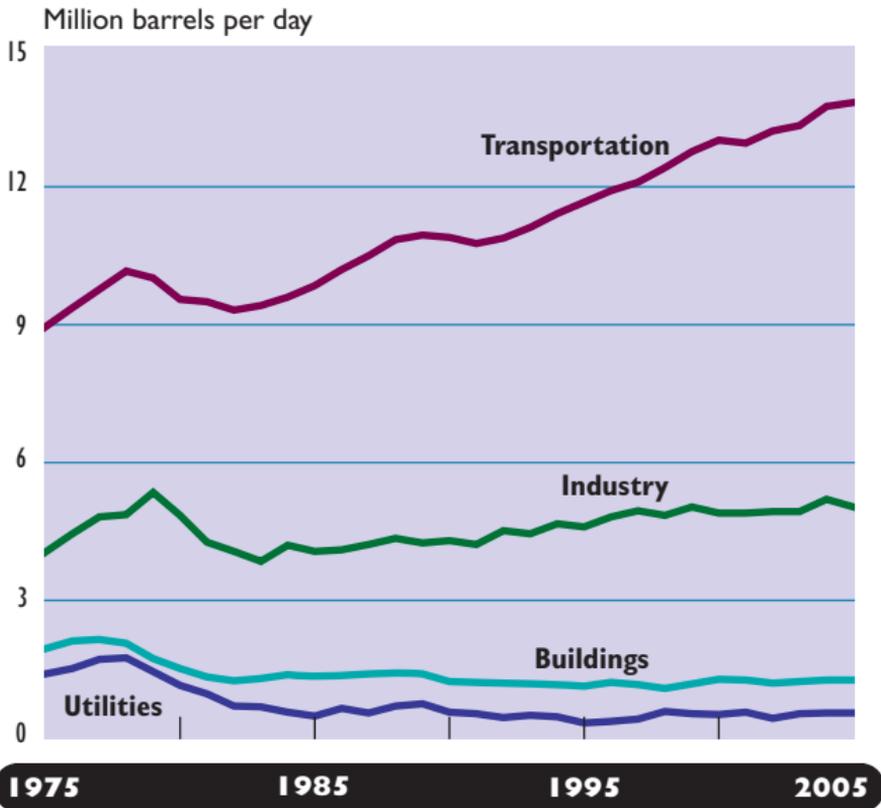
3-3 U.S. Petroleum Production and Consumption: 1975–2005



Note: 2005 data are preliminary.

Source: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 2005* (Washington, DC: July 2006), tables 5.1 and 5.13a-d.

3-4 Transportation's Share of U.S. Petroleum Use: 1975–2005

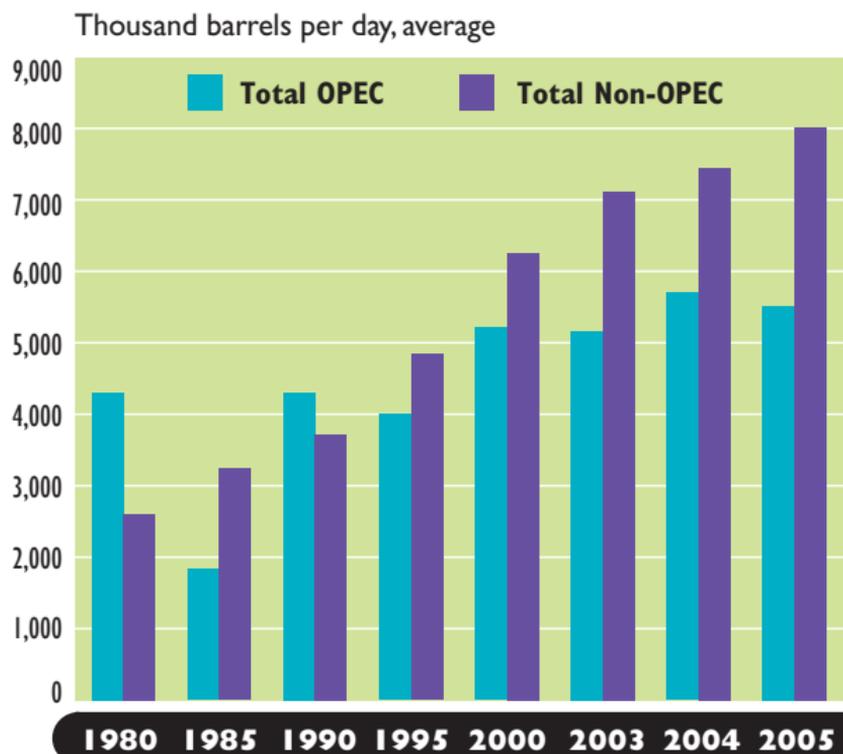


Note: 2005 data are preliminary.

Source: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 2005* (Washington, DC: July 2006), tables 5.13a–d.

3-5

U.S. Oil Imports



Notes: OPEC (Organization of Petroleum Exporting Countries) members are Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela. Former members Ecuador (until 1992) and Gabon (until 1994) are included in 1990 and prior years.

Source: U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review*, August 2006, tables 3.3d and 3.3h, available at <http://www.eia.doe.gov/emeu/mer/petro.html>, as of September 2006.

3-6

Major Suppliers of U.S. Imported Crude Oil and Petroleum Products*(Thousand barrels per day, average; rank in 2005)*

	1980	1985	1990	1995	2000	2005
Canada	455	770	934	1,332	1,807	2,172
Mexico	533	816	755	1,068	1,373	1,646
Saudi Arabia	1,261	168	1,339	1,344	1,572	1,523
Venezuela	481	605	1,025	1,480	1,546	1,506
Nigeria	857	293	800	627	896	1,147
Iraq	28	46	518	0	620	522
Algeria	488	187	280	234	225	477
Angola	42	110	237	367	301	465
Russia	1	8	45	25	72	398
United Kingdom	176	310	189	383	366	387
U.S. Virgin Islands	388	247	282	278	291	326
Kuwait	27	21	86	218	272	231
Norway	144	32	102	273	343	230
Colombia	4	23	182	219	342	196
Total, major suppliers	4,884	3,628	6,729	7,823	9,954	11,226
Total, all U.S. imports	6,909	5,067	8,018	8,835	11,459	13,527

Note: The country of origin for petroleum products may not be the country of origin for the crude oil used to produce the products. For example, refined products imported from western European refineries may have been produced from Middle Eastern crude oil.

Source: U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review*, August 2006, tables 3.1a, 3.3a–h, available at <http://www.eia.doe.gov/emeu/mer/petro.html>, as of September 2006.

The U.S. transportation network makes possible a high degree of personal mobility and freight activity. The data in this section show growth in travel and freight shipments over time. Factors influencing this growth include, among others: vehicle availability, travel costs, population, congestion, the economy, and consumer income.

4-1

Passenger Travel and Freight Transportation Per Capita

	Number
Passenger travel (2001)	
Trips	
Daily trips per person	4.1
Daily trips per person per year ^a	1,483
Miles	
Daily miles per person	40
Daily miles per person per year ^a	14,524
Domestic freight transportation (2002)	
Tons per person, annually	^R 68
Ton-miles per person, annually	^R 15,311

^a Calculated on an annualized basis.

Key: R = revised

Notes: Data used for passenger travel are from the National Household Travel Survey (NHTS) travel-day file and include trips of all lengths; about 95 percent of these daily trips were 30 miles or less. Calculations are based on weighted estimates from the 2001 NHTS.

Sources: **Passenger**—U.S. Department of Transportation (USDOT), Federal Highway Administration and Research and Innovative Technology Administration (RITA), Bureau of Transportation Statistics (BTS), *National Household Travel Survey* (Washington, DC: 2002). **Freight**—USDOT, RITA, BTS, based on tonnage and ton-miles data from *Freight In America: A New National Picture*, January 2006, available at www.bts.gov, as of December 2006.

Number of Aircraft, Railcars, Vehicles, and Vessels

Mode	1980	1990	2000	2004
Air				
Air carrier	3,808	6,083	8,055	8,186
General aviation	211,045	198,000	217,533	219,426
Highway				
Automobiles	121,600,843	133,700,496	133,621,420	136,430,651
Other 2-axle, 4-tire vehicles ^a	27,875,934	48,274,555	79,084,979	91,845,327
Buses (municipally owned transit and commercial, federal, and school buses)	528,789	626,987	746,125	795,274
Motorcycles	5,693,940	4,259,462	4,346,068	5,780,870
Trucks				
Single-unit	4,373,784	4,486,981	5,926,030	6,161,028
Combination	1,416,869	1,708,895	2,096,619	2,010,335
Rail—Passenger				
Amtrak—Cars	2,128	1,863	1,894	1,211
Amtrak Locomotives	419	318	378	276
Commuter railcars and locomotives	4,500	5,007	5,498	^P 6,228
Transit ^b	10,654	11,332	12,168	^P 12,480
Rail—freight:				
Class I—Freight cars	1,168,114	658,902	560,154	473,773
Class I—Locomotives	28,094	18,835	20,028	22,015
Other freight cars	542,713	553,359	820,642	814,147
Waterborne				
Nonsself-propelled vessels (barges) ^{c,d}	31,662	31,209	33,152	31,296
Self-propelled vessels ^{c,d}	7,126	8,236	8,202	8,994
Oceangoing ships ^d (1,000 gross tons and over)	864	636	454	412
Recreational boats (numbered boats)	8,577,857	10,996,253	12,782,143	12,781,476

^a Includes vans, pickup trucks, sport utility vehicles, and other 2-axle, 4-tire motor vehicles that are not passenger cars. ^b Includes light and heavy rail only. ^c See Glossary for definitions. ^d U.S.-flag vessels.

Key: P = preliminary.

Sources: Except as noted, various sources, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table I-11, available at <http://www.bts.gov>, as of October 2006.

4-3

Vehicle-Miles*(Millions)*

Mode	1970	1980	1990	2000	2004
Air					
Air carrier	2,068	2,523	3,963	5,664	6,552
General aviation	3,207	5,204	4,548	^a N	^a N
Highway					
Passenger cars	916,700	1,111,596	1,408,266	1,600,287	1,704,982
Other 2-axle, 4-tire vehicles ^b	123,286	290,935	574,571	923,059	1,014,342
Motorcycles	2,979	10,214	9,557	10,469	10,048
Buses ^c	4,544	6,059	5,726	7,590	6,637
Trucks:					
Single-unit	27,081	39,813	51,901	70,500	81,107
Combination	35,134	68,678	94,341	135,020	145,398
Rail ^d :					
Transit ^e	441	403	561	648	^P 710
Commuter	N	179	213	271	^P 295
Intercity/Amtrak ^f	690	235	301	368	308
Class I freight	29,890	29,277	26,159	34,590	37,071
Other transit ^g	N	15	324	833	^P 986

^a The Federal Aviation Administration has estimated vehicle-miles for general aviation aircraft through 1997, relying in part on hours-flown survey data. Vehicle-miles estimates for subsequent years are not yet available.

^b Includes vans, pickup trucks, sport utility vehicles, and other 2-axle, 4-tire motor vehicles that are not passenger cars.

^c Includes municipally owned transit and commercial, federal, and school buses.

^d Car-miles.

^e Includes light and heavy rail only.

^f Fiscal year data. Amtrak began operations in 1971.

^g Includes demand response, ferryboat, and other transit not specified; 1980 data include "other transit" only.

Key: N = data are nonexistent; P = preliminary.

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

2004 transit, commuter, and other transit: American Public Transportation Association, *2006 Public Transportation Fact Book*, table 12 and 15, available at <http://www.apta.com/research/stats/>, as of October 2006.

4-4

Passenger-Miles*(Millions)*

Mode	1970	1980	1990	2000	2004
Air					
Air carrier	108,442	204,368	345,873	516,129	557,893
General aviation	9,100	14,700	13,000	15,200	U
Highway					
Passenger cars	1,750,897	2,011,989	2,281,391	2,544,457	2,693,872
Other 2-axle, 4-tire vehicles ^a	225,613	520,774	999,754	1,467,664	1,758,542
Buses ^b	N	N	121,398	160,919	140,716
Motorcycles	3,277	12,257	12,424	11,516	12,761
Rail:					
Transit ^c	N	10,939	12,046	15,200	^P 15,930
Commuter	4,592	6,516	7,082	9,402	^P 9,719
Intercity/ Amtrak ^d	6,179	4,503	6,057	5,498	5,511
Other transit ^e	N	390	841	1,631	^P 1,874

^a Includes vans, pickup trucks, sport utility vehicles, and other 2-axle, 4-tire motor vehicles that are not passenger cars.

^b Includes municipally owned transit and commercial, federal, and school buses.

^c Includes light and heavy rail only.

^d Fiscal year data. Amtrak began operations in 1971.

^e Includes demand response, ferryboat, and other transit not specified; 1980 data include ferryboat and "other transit" only.

Key: N = data are nonexistent; P = preliminary; U = unavailable.

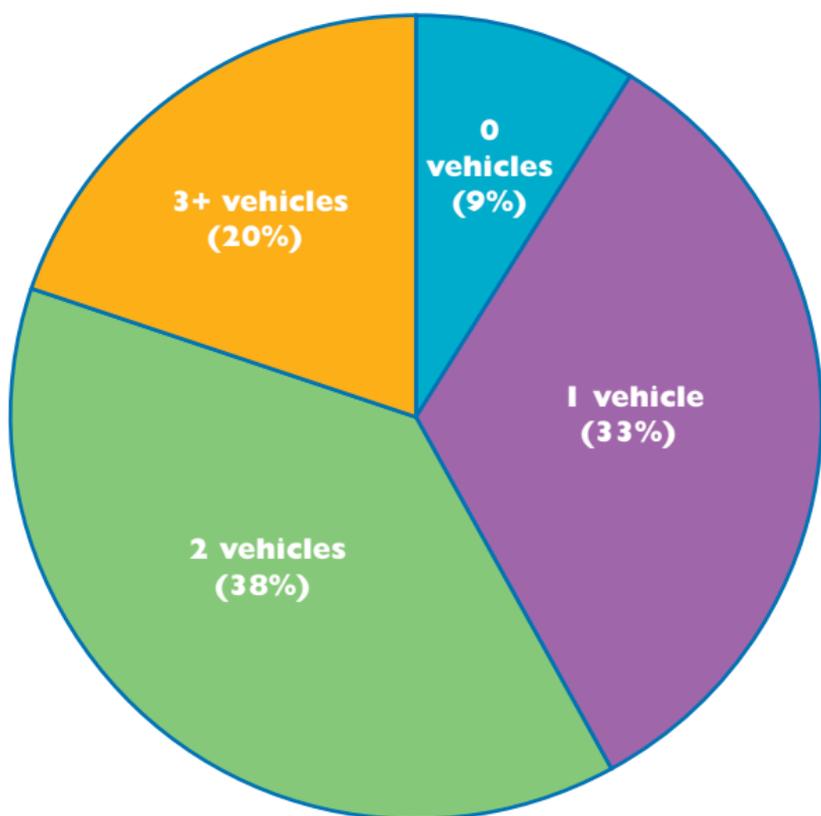
Sources: Various sources, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table I-37, available at <http://www.bts.gov>, as of September 2006.

4-5

U.S. Domestic Freight Ton-Miles by Mode*(Billions)*

Mode	1980	1990	2000	2004	Percent change 1980–2004
Total	3,404	3,622	4,329	4,575	34.4
Air	4.8	10.4	15.8	16.5	239.9
Truck	629.7	848.8	1,192.8	1,314.6	108.8
Railroad	932	1,064.4	1,546.3	1,684.5	80.7
Water	921.8	833.5	645.8	621.2	-32.6
Pipeline	915.7	864.8	927.9	938.0	2.4

Source: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, forthcoming update to National Transportation Statistics, Table I-46b, available at http://www.bts.gov/publications/national_transportation_statistics/.

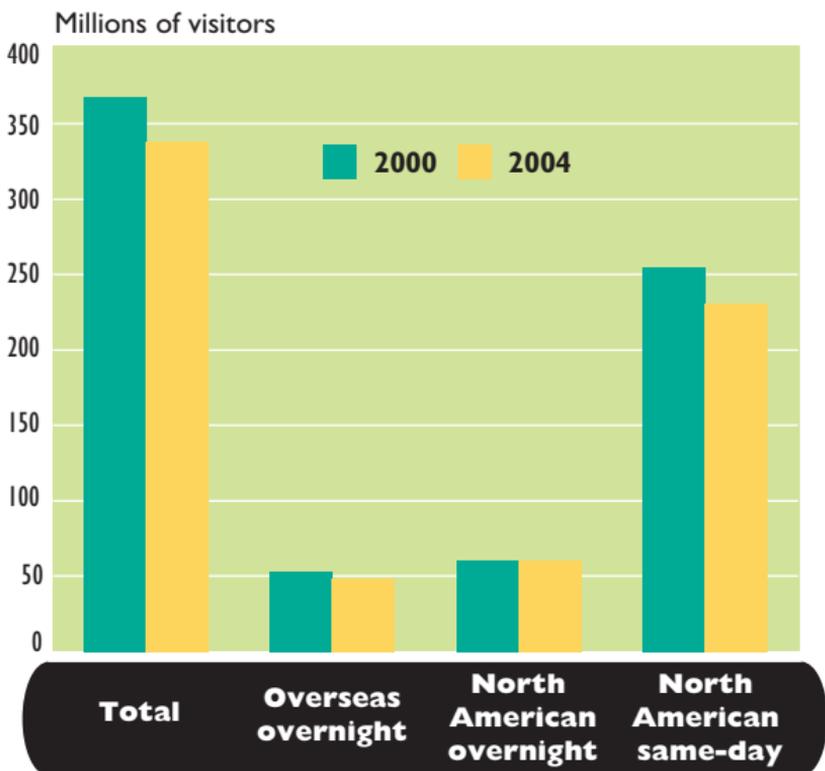
Households by Number of Vehicles: 2005

Note: Data covers the household population and exclude the population living in institutions, college dormitories and other group quarters.

Source: U.S. Department of Commerce, U.S. Census Bureau, *American Community Survey*, annual issues, available at <http://www.census.gov/acs/www/index.html>, as of November 2006.

4-7

Travel Between the United States and Foreign Countries



Source: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *U.S. International Travel and Transportation Trends*, table I-1 (Washington, DC: September 2006).

4-8

Top 20 U.S. Gateways for Nonstop International Air Travel: 2004 and 2005

(Thousands of international passengers^a)

2005 rank	Gateway airport	2004	2005	% change 2004-2005
1	New York (JFK), NY	17,090	18,502	8.3
2	Los Angeles, CA	15,843	16,858	6.4
3	Miami, FL	14,565	14,621	0.4
4	Chicago (O'Hare), IL	10,231	11,013	7.6
5	Newark, NJ	8,702	9,133	4.9
6	San Francisco, CA	7,293	7,840	7.5
7	Atlanta, GA	6,843	7,453	8.9
8	Houston (Bush), TX	6,213	6,571	5.8
9	Dallas-Ft. Worth, TX	4,680	5,146	10.0
10	Washington (Dulles), DC	4,527	4,792	5.8
11	Honolulu, HI	4,323	4,410	2.0
12	Boston, MA	3,798	3,902	2.7
13	Detroit, MI	3,616	3,823	5.7
14	Philadelphia, PA	3,624	3,694	1.9
15	Minneapolis-St. Paul, MN	2,523	2,599	3.0
16	Guam Island, GU	2,282	2,456	7.6
17	Seattle-Tacoma, WA	2,336	2,356	0.8
18	Fort Lauderdale, FL	1,624	2,181	34.3
19	Orlando, FL	2,027	2,161	6.6
20	San Juan, PR	2,027	2,039	0.6
Total, top 20 U.S. international airports		124,350	131,550	5.8
Top 20, percentage of total		87.4	87.2	
Total, all U.S. international airports		142,242	150,939	6.1

^a International passengers are residents of any country traveling nonstop to and from the United States on U.S. and foreign carriers.

Note: The data cover all passengers arriving and departing from U.S. airports on nonstop commercial international flights with 60 seats or more.

Source: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, T-100 Segment data, February 2006.

U.S.-Mexican Border Land-Passenger Crossings: 2005*(Thousands)***Entering the U.S.**

Total U.S.-Mexico crossings	
Personal vehicles	91,556
Personal vehicle passengers	186,067
Buses	256
Bus passengers	3,170
Train passengers	18
Pedestrians	45,830
Personal vehicles—top 5 gateways	
San Ysidro, CA	17,208
El Paso, TX	15,972
Brownsville, TX	7,104
Hidalgo, TX	6,970
Otay Mesa, CA	6,673
Personal vehicle passengers—top 5 gateways	
San Ysidro, CA	32,265
El Paso, TX	29,181
Brownsville, TX	14,615
Laredo, TX	14,017
Hidalgo, TX	13,989
Buses—top 5 gateways	
San Ysidro, CA	106
Otay Mesa, CA	39
Laredo, TX	36
Hidalgo, TX	28
El Paso, TX	16
Bus passengers—top 5 gateways	
San Ysidro, CA	995
Laredo, TX	827
Hidalgo, TX	369
El Paso, TX	276
Otay Mesa, CA	252
Train passengers—top 5 gateways	
El Paso, TX	8
Eagle Pass, TX	7
Calexico East, CA	1
Nogales, AZ	1
Otay Mesa/San Ysidro, CA	0.5
Pedestrians—top 5 gateways	
San Ysidro, CA	8,156
El Paso, TX	7,614
Nogales, AZ	6,930
Calexico, CA	4,481
Laredo, TX	4,356

Note: Totals may not add due to rounding.

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 August 2006.

U.S.-Canadian Border Land-Passenger Crossings: 2005*(Thousands)***Entering the U.S.**

Total U.S.-Canada crossings	
Personal vehicles	30,352
Personal vehicle passengers	62,501
Buses	153
Bus passengers	3,855
Train passengers	236
Pedestrians	605
Personal vehicles—top 5 gateways	
Detroit, MI	6,035
Buffalo-Niagara Falls, NY	6,034
Blaine, WA	2,482
Port Huron, MI	1,953
Calais, ME	1,174
Personal vehicle passengers—top 5 gateways	
Buffalo-Niagara Falls, NY	13,224
Detroit, MI	10,655
Blaine, WA	4,868
Port Huron, MI	4,002
Champlain-Rouses Point, NY	2,921
Buses—top 5 gateways	
Buffalo-Niagara Falls, NY	45
Detroit, MI	37
Blaine, WA	13
Skagway, AK	10
Sault Ste. Marie, MI	10
Bus passengers—top 5 gateways	
Buffalo-Niagara Falls, NY	1,367
Detroit, MI	931
Champlain-Rouses Point, NY	296
Blaine, WA	295
Skagway, AK	134
Train passengers—top 5 gateways	
Skagway, AK	67
Buffalo-Niagara Falls, NY	36
Blaine, WA	35
Champlain-Rouses Point, NY	30
Port Huron, MI	19
Pedestrians—top 5 gateways	
Buffalo-Niagara Falls, NY	370
Calais, ME	44
Sumas, WA	34
International Falls, MN	24
Point Roberts, WA	22

Note: Totals may not add due to rounding.

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 August 2006.

Top 20 U.S. Passenger Airports*(Thousands of enplaned passengers on large certificated air carriers)*

Airport	1995		2005		% change 1995–2005
	Rank	Total enplaned passengers	Rank	Total enplaned passengers	
Atlanta, GA	2	27,561	1	41,659	51
Chicago (O'Hare), IL	1	29,886	2	34,514	15
Dallas/Ft. Worth, TX	3	25,992	3	27,782	7
Los Angeles, CA	4	21,074	4	22,966	9
Las Vegas, NV	10	12,665	5	20,690	63
Denver, CO	6	14,330	6	20,261	41
Phoenix, AZ	7	13,559	7	20,078	48
Houston (Bush), TX	14	10,952	8	18,250	67
Minneapolis/St. Paul, MN	13	11,850	9	17,887	51
Detroit, MI	8	13,294	10	17,380	31
Orlando, FL	21	9,197	11	15,536	69
Newark, NJ	12	11,906	12	14,878	25
New York (JFK), NY	19	9,285	13	14,456	56
Philadelphia, PA	24	8,023	14	14,411	80
Seattle, WA	15	10,731	15	13,964	30
San Francisco, CA	5	15,014	16	13,830	-8
Charlotte, NC	18	9,589	17	13,279	38
Miami, FL	11	12,036	18	12,192	1
New York (La Guardia), NY	17	9,682	19	12,119	25
Boston, MA	16	10,513	20	11,707	11
Top 20 airports		287,140		377,841	32
All airports		526,546		690,257	31

Note: Numbers may not add to totals due to rounding.

Source: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Schedule T-3 data, special tabulation, November 2006.

Major U.S. Airports' On-Time Arrival Performance

Airport	2004		2005	
	On-Time rank	%	On-Time rank	%
Salt Lake City, UT	3	82.2	1	83.5
Cincinnati, OH	16	79.9	2	82.7
Denver, CO	1	83.1	3	82.5
Chicago (Midway), IL	18	79.3	4	82.3
Houston (Bush), TX	8	81.0	5	81.5
Dallas/Ft. Worth, TX	7	81.2	6	81.3
Phoenix, AZ	15	80.0	7	81.1
St. Louis, MO	12	80.6	8	80.6
Baltimore, MD	9	80.8	9	80.2
Los Angeles, CA	4	81.7	10	80.1
Charlotte, NC	2	83.1	11	79.9
Oakland, CA	6	81.3	12	79.5
San Diego, CA	14	80.1	13	79.2
Washington (Dulles), DC	20	78.4	14	79.1
Washington (Reagan National), DC	10	80.7	15	78.7
Pittsburgh, PA	11	80.6	16	78.5
Minneapolis/St. Paul, MN	13	80.5	17	78.2
Detroit, MI	5	81.4	18	78.1
Las Vegas, NV	25	77.7	19	77.8
Portland, OR	17	79.4	20	77.6
Orlando, FL	21	78.0	21	77.5
Tampa, FL	19	79.3	22	77.0
San Francisco, CA	26	76.9	23	75.1
Chicago (O'Hare), IL	33	70.1	24	74.9
Seattle, WA	24	77.8	25	74.5
Miami, FL	23	77.8	26	74.0
Boston, MA	22	77.9	27	72.5
Atlanta, GA	31	72.9	28	71.9
Philadelphia, PA	29	73.5	29	71.8
Fort Lauderdale, FL	28	75.6	30	71.1
New York (JFK), NY	27	76.1	31	70.3
New York (LaGuardia), NY	30	73.3	32	66.7
Newark, NJ	32	71.2	33	64.1

Note: On-time flights arrive within 15 minutes of scheduled arrival time.

Source: Bureau of Transportation Statistics, Airline On-Time Data, www.bts.gov.

4-13

Roadway Delay and Congestion Cost per Peak Traveler^a in Urban Areas: Annual Roadway Delay per Peak Traveler

(Hours per year)

Annual Roadway Delay per Peak Traveler

(Hours per year)

	1993 delay per peak traveler	2003 delay per peak traveler	Percentage change 1993–2003	Annual growth rate 1993–2003
Very large areas	55	61	11	1.0
Large areas	28	37	32	2.8
Medium areas	15	25	67	5.2
Small areas	9	13	44	3.7
85-area average	40	47	18	1.6

Annual Roadway Congestion Cost per Peak Traveler

(Current dollars)

	1993 cost per peak traveler	2003 cost per peak traveler	Percentage change 1993–2003	Annual growth rate 1993–2003
Very large areas	719	1,038	44	3.7
Large areas	374	620	66	5.2
Medium areas	199	418	110	7.7
Small areas	118	222	88	6.5
85-area average	523	794	52	4.3

^a A peak traveler is estimated to travel from 6:00 a.m. to 9:30 a.m. and 3:30 p.m. to 7:00 p.m.

Key:

Very large = over 3 million population (e.g., New York-Northern New Jersey).

Large = 1 million–3 million population (e.g., Atlanta).

Medium = selected areas with 500,000–1 million population (e.g., Memphis).

Small = selected areas under 500,000 population (e.g., Colorado Springs).

Note: See Glossary for definitions of delay and congestion cost.

Source: Texas Transportation Institute, *2005 Urban Mobility Report*, "Base Statistics for the 85 Urban Areas" spreadsheet, available at http://mobility.tamu.edu/ums/congestion_data/tables/complete_data.xls, as of September 2005.

Amtrak On-Time Performance Trends and Hours of Delay by Cause

	2003	2004	2005	2006
On-time performance				
Total (weighted)	73.9%	70.7%	69.8%	67.8%
Short distance (<400 miles) ^a	77.7%	75.2%	73.6%	72.8%
Long distance (>400 miles)	50.3%	40.7%	42.1%	29.9%
Hours of delay by cause				
Amtrak ^b	25,711	28,328	25,549	23,967
Host railroad ^c	57,346	61,256	64,097	71,388
Other ^d	5,355	5,577	5,613	6,166
Total^e	88,413	95,162	95,260	101,522

^a Includes all Amtrak Northeast Corridor and Empire Service (New York State) trains. ^b 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. ^c Includes all operating delays not attributable to Amtrak when operating on tracks of a host railroad (e.g., track- and signal-related delays, power failures, freight and commuter train interference, routing delays). ^d Includes delays not attributable to Amtrak or host railroads (e.g., customs and immigration, law enforcement action, weather, or waiting for scheduled departure time). ^e Numbers may not add to totals due to rounding.

Notes: All percentages are based on Amtrak's fiscal year (Oct. 1–Sept. 30). Host railroad is a freight or commuter railroad over which many Amtrak trains operate for all or part of their trips.

Amtrak trips are considered delayed based on the following chart:

The ranges of short and long distance operating miles are changed in this report. Short distance equals <=400 miles, and long distance equals > 400 miles

Trip length (miles)	Arrival time delay (minutes)
0–250	10
251–350	15
351–450	20
451–550	25
> 551	30

Source: Amtrak, personal communication, November 2006.

Top 20 U.S. Water Ports by Shipment Weight & Top 20 U.S. Water Ports by Container TEUs: 2004

Port by shipment weight	Short tons (millions)	Port by container TEUs	Full TEUs (thousands)
South Louisiana, LA	224.2	Long Beach, CA	5,185
Houston, TX	202.1	Los Angeles, CA	3,901
New York, NY and NJ	152.4	New York, NY and NJ	3,409
Beaumont, TX	91.7	Tacoma, WA	1,626
Long Beach, CA	79.7	Oakland, CA	1,510
Corpus Christi, TX	78.9	Charleston, SC	1,423
New Orleans, LA	78.1	Savannah, GA	1,309
Huntington-Tristate, WV-OH-PA	77.3	Norfolk Harbor, VA	1,308
Texas City, TX	68.3	Houston, TX	1,236
Baton Rouge, LA	57.1	Seattle, WA	1,199
Mobile, AL	56.2	Honolulu, HI	1,150
Lake Charles, LA	54.7	Miami, FL	818
Plaquemines, LA	54.4	Jacksonville, FL	749
Los Angeles, CA	51.4	Anchorage, AK	604
Tampa, FL	48.3	Port Everglades, FL	502
Baltimore, MD	47.4	Baltimore, MD	444
Valdez, AK	46.8	New Orleans, LA	275
Duluth-Superior, MN and WI	45.4	Portland, OR	229
Pittsburgh, PA	41.0	Gulfport, MS	184
Philadelphia, PA	35.2	Wilmington, DE	150
Total, top 20	1,591		27,211
Total, all ports	2,552		29,927

Note: Includes exports, imports, and domestic shipments. See table 5-8 for top 20 freight gateways by value of shipments.

TEUs = 20-foot equivalent units. One 20-foot container equals one TEU.

Sources: U.S. Army Corps of Engineers, *Waterborne Commerce of the United States, Calendar Year 2004, Part 5, National Summaries*, table 5-2, available at <http://www.iwr.usace.army.mil/ndc/wcsc/wcsc.htm>, as of April 2006. U.S. Army Corps of Engineers, *Waterborne Container Traffic for U.S. Ports and all 50 States and U.S. Territories, Port TEUs*, available at <http://www.iwr.usace.army.mil/ndc/wcsc/wcsc.htm>, as of July 2006.

4-16

Top 20 World Container Ports: 2000 and 2004*(Thousands of full and empty TEUs)*

Rank (2000)	Rank (2004)	Port	Country	TEUs
1	1	Hong Kong	China	21,984
2	2	Singapore	Singapore	21,329
6	3	Shanghai	China	14,557
23	4	Shenzhen	China	13,615
3	5	Busan	South Korea	11,430
4	6	Kaohsiung	Taiwan	9,714
5	7	Rotterdam	Netherlands	8,281
7	8	Los Angeles	United States	7,321
9	9	Hamburg	Germany	7,003
13	10	Dubai	United Arab Emirates	6,429
10	11	Antwerp	Belgium	6,064
8	12	Long Beach	United States	5,780
12	13	Port Kalang	Malaysia	5,244
24	14	Qingdao	China	5,140
14	15	New York/ New Jersey	United States	4,478
108	16	Tanjung Pelepas	Malaysia	4,020
**	17	Ningbo	China	4,006
31	18	Tianjin	China	3,814
11	19	Tanjung Priok	Indonesia	3,597
25	20	Laem Chabang	Thailand	3,529

** Ningbo was unranked among the world's major ports in 2000. In that year, it handled only 902,000 TEUs (www.nbport.com.cn).

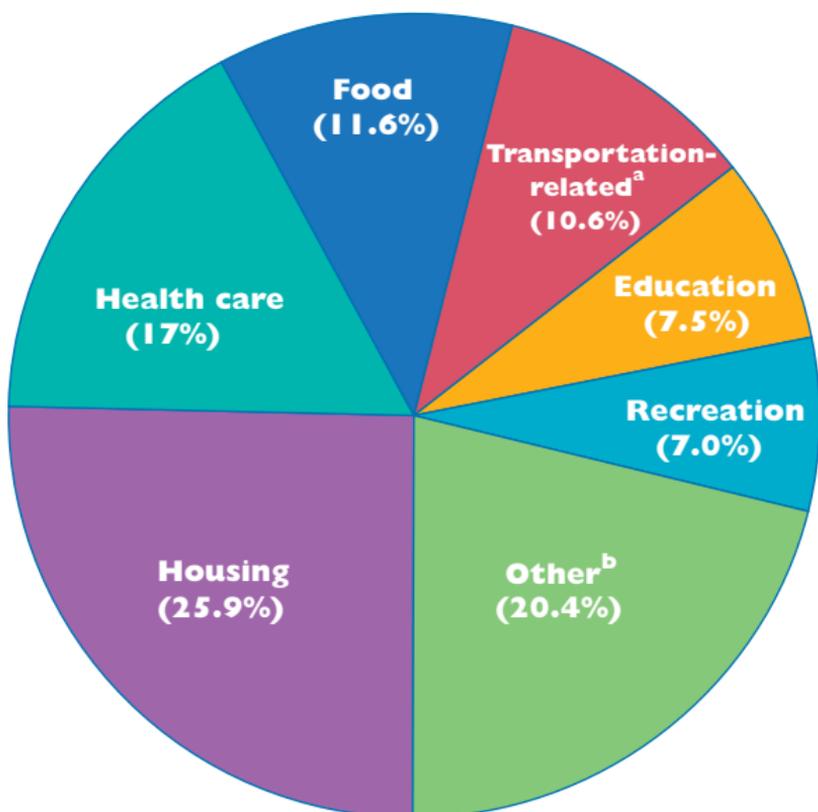
Note: TEUs = 20-foot equivalent units. One 20-foot container equals one TEU.

Source: **2004**—American Association of Port Authorities (AAPA), *World Port Rankings:2004* (Container Traffic), available at <http://www.aapa-ports.org/>, as of September 2006.

2000—Data obtained through personal communication with AAPA, October 2006.

Transportation is a major sector of the U.S. economy. It moves people and goods, employs millions of workers, generates revenue, and consumes resources and services produced by other sectors of the economy. In 2005, transportation-related goods and service contributed \$1.3 trillion to the \$12.5 trillion U.S. Gross Domestic Product.

5-1
**U.S. Gross Domestic Product by
 Major Societal Function: 2005**

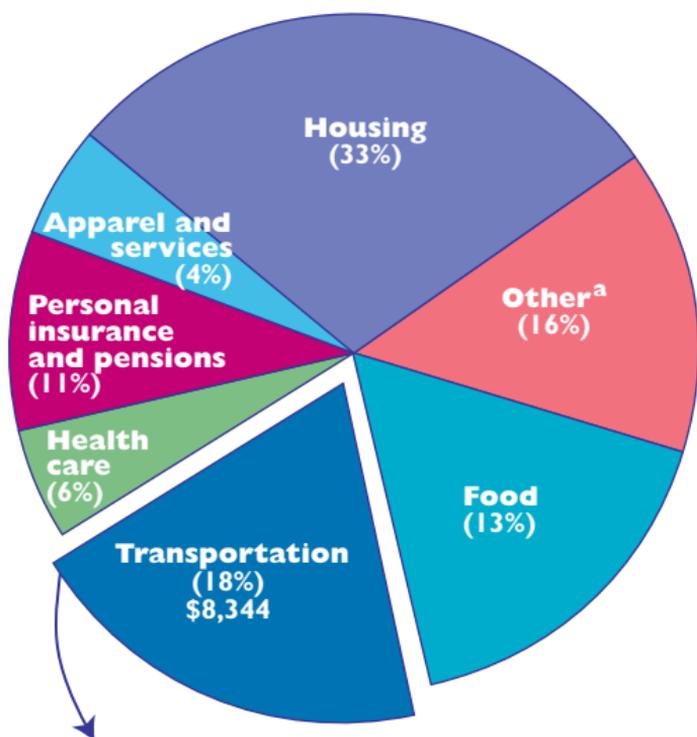


^a Includes all consumer and government purchases of goods (e.g., vehicles and fuel) and services (e.g., auto insurance) and exports related to transportation. ^b Includes all other categories (e.g., entertainment, personal care products and services, and payments to pension plans).

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, calculated from data in U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, October 2006.

Average Household Expenditures by Major Spending Category: 2005

(Current dollars)



Private vehicle expenditures	=	\$7,896
Vehicle purchases	=	\$3,554
Gasoline and motor oil	=	\$2,013
Other vehicle expenditures	=	\$2,339
Public transportation expenditures	=	\$448
Airline fares	=	\$285
Mass transit fares	=	\$52
Ship fares	=	\$42
Taxi fares	=	\$24
Intercity train fares	=	\$19
Intercity bus fares	=	\$12
Local transportation on out-of-town trips	=	\$11
School bus	=	\$3

^a Includes entertainment, personal care products and services, education, tobacco products and smoking, and miscellaneous.

Note: Numbers do not add to totals due to rounding.

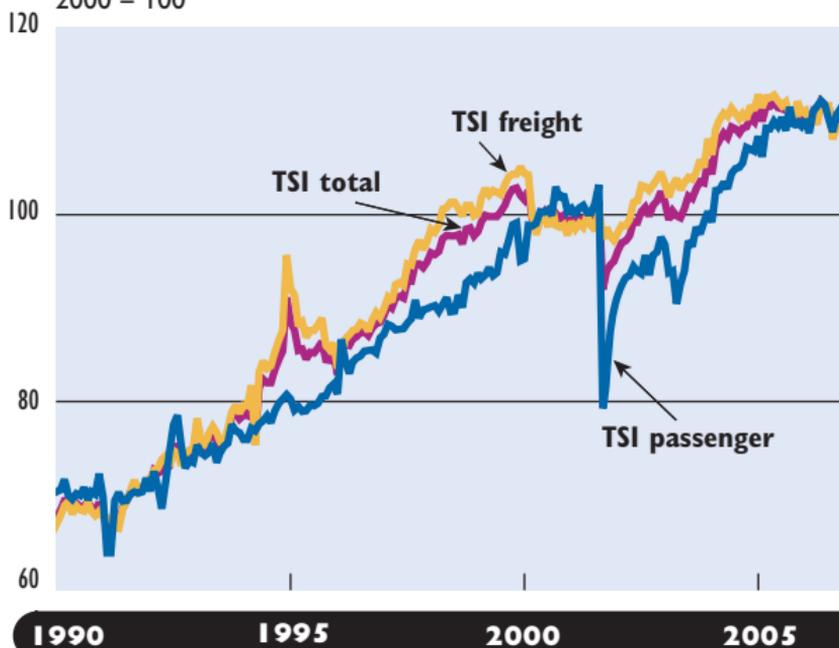
Source: U.S. Department of Labor, Bureau of Labor Statistics, Consumer Expenditure Survey, 2005; and personal communication, November 2006.

5-3

Transportation Services Index (TSI)

(Seasonally adjusted)

Chained-type index:
2000 = 100



Note: The TSI total is a single index measure of monthly output of for-hire transportation services in the United States using 2000 as the base year.

Source: Compiled by U.S. Department of Transportation (USDOT), Bureau of Transportation Statistics (BTS), special calculation, available at <http://www.bts.gov/xml/tsi/src/index.xml>, as of December 2006.

Employment in Transportation and Selected Transportation-Related Industries^a

(Thousands)

	1990	1995	2000	2005
Total U.S. labor force (Nonfarm)	109,487	117,298	131,785	133,463
Total transportation related labor force^b	12,084	12,450	13,679	U
Transportation as a percent of total U.S. labor force	11	11	10	U
For-hire transport & warehousing	3,476	3,838	4,410	4,347
Air	529	511	614	501
Water	57	51	56	61
Railroad	272	233	232	228
Transit/ground passenger transportation	274	328	372	389
Pipeline	60	54	46	38
Trucking	1,122	1,249	1,406	1,393
Support activities	364	430	537	551
Scenic/sightseeing transportation	16	22	28	30
Couriers/messengers	375	517	605	572
Warehousing/storage	407	444	514	585
Related services & construction	5,256	5,577	6,177	U
Automotive repair services/parking; automotive equipment rental/leasing; gasoline stations	1,800	1,906	2,125	2,062
Highway, street, bridge construction	289	278	340	352
Dealers or wholesalers of motor vehicles, parts, petroleum, supplies, equipment	1,993	2,119	2,360	2,396
Travel arrangement/reservation services	250	281	299	224
Ambulatory health care services	99	143	173	207
Postal service	825	850	880	U
Transportation-related manufacturing^b	2,681	2,390	2,446	2,139
Government^c	673	644	646	602

^a Annual averages. Data are NAICS-based. (See Glossary for definition.)

^b Fiscal year data. Includes U.S. DOT and state and local highway personnel. ^c Includes transportation equipment; petroleum products; tires; rubber; plastics; search, detection, navigation, guidance, aeronautical, and nautical systems; and instrument manufacturing.

Key: U = Unavailable

Source: Various sources as cited in USDOT, RITA, BTS, *National Transportation Statistics*, table 3-19b, available at <http://www.bts.gov>, as of Oct. 2006.

5-5

Value of U.S.–International Merchandise Trade by Mode of Transportation: 2005

(Millions of current U.S. dollars)

	Exports	Modal %	Imports	Modal %	Total trade	Total modal %
Total	904,380	100.0	1,670,940	100.0	2,575,320	100.0
Water	261,519	28.9	859,440	51.4	1,120,959	43.5
Air	292,970	32.4	359,120	21.5	652,091	25.3
Truck	234,563	25.9	255,963	15.3	490,526	19.0
Rail	35,070	3.9	81,388	4.9	116,458	4.5
Pipeline	2,937	0.3	48,766	2.9	51,704	2.0
Other, unknown, & miscellaneous	77,321	8.5	66,262	4.0	143,583	5.6

Notes: Numbers may not add to totals due to rounding.

Water—Excludes intransit data (merchandise shipped from one foreign country to another via a U.S. water port).

Imports—Excludes imports valued at less than \$1,250. Import value is based on U.S. general imports, customs value basis.

Exports—Excludes exports valued at less than \$2,500. Export value is FAS (free alongside ship) and represents the value of exports at the port of export, including the transaction price and inland freight, insurance, and other charges.

Sources: Compiled by U.S. Department of Transportation (USDOT), Research and Innovative Technology Administration (RITA), Bureau of Transportation Statistics (BTS), September 2006. **Water and air data**—U.S. Department of Commerce, U.S. Census Bureau, Foreign Trade Division, *U.S. Exports of Merchandise*, CD-ROM and *U.S. Imports of Merchandise*, CD-ROM, December 2005. **Total, truck, rail, pipeline, other and unknown data**—USDOT, RITA, BTS, Transborder Freight Data 2005; and special calculation, September 2006.

5-6

Weight of U.S.–International Merchandise Trade by Mode of Transportation: 2005

(Thousands of short tons)

	Modal Exports		Modal Imports		Total trade	Total modal %
		%		%		%
Total	539,201	100.0	1,377,533	100.0	1,916,734	100.0
Water ^a	389,796	72.3	1,096,982	79.6	1,486,778	77.6
Air	3,031	0.6	4,378	0.3	7,409	0.4
Truck ^b	88,865	16.5	101,932	7.4	190,797	10.0
Rail ^b	47,513	8.8	93,453	6.8	140,966	7.4
Pipeline ^b	4,858	0.9	80,746	5.9	85,604	4.5
Other, unknown, & miscellaneous ^b	5,137	1.0	42	0.0	5,179	0.3

^a The weight data for water transportation vary from those officially reported by the U.S. Army Corps of Engineers because the data in this table exclude intransit shipments (merchandise shipped from one foreign country to another via a U.S. port but not part of U.S. official merchandise trade). BTS uses Census Bureau trade-based data to allow for a complete modal comparison among the different freight transportation modes. ^b BTS estimated the export weight for truck, rail, pipeline, and other and unknown based on value-to-weight ratios from the import data by country, mode of transportation, and two digit HS commodity code. This was necessary, because export weights for surface modes are not currently reported. Weight for water and air exports and imports are from U.S. Department of Commerce, U.S. Census Bureau.

Notes: Numbers may not add to totals due to rounding.

Water—Excludes intransit data (merchandise shipped from one foreign country to another via a U.S. water port).

Imports—Excludes imports valued at less than \$1,250. Import value is based on U.S. general imports, customs value basis.

Exports—Excludes exports valued at less than \$2,500. Export value is FAS (free alongside ship) and represents the value of exports at the port of export, including the transaction price and inland freight, insurance, and other charges.

Sources: Compiled by U.S. Department of Transportation (USDOT), Research and Innovative Technology Administration (RITA), Bureau of Transportation Statistics (BTS), September 2006. **Water and air data**—U.S. Department of Commerce, U.S. Census Bureau, Foreign Trade Division, *U.S. Exports of Merchandise*, CD-ROM and *U.S. Imports of Merchandise*, CD-ROM, December 2005. **Total, truck, rail, pipeline, other and unknown data**—USDOT, RITA, BTS, *Transborder Freight Data 2005*; and special calculation, September 2006.

5-7

U.S. Merchandise Trade with Canada and Mexico by Mode Share: 2005

Mode	Value (percent)	Weight (percent)
NAFTA trade, total	100.0	100.0
Truck ^a	62.1	28.1
Rail ^a	14.8	20.8
Pipeline ^a	6.5	12.6
Air	4.2	0.1
Water	7.4	37.7
Other and unknown ^a	5.0	0.8
U.S.-NAFTA imports, total	100.0	100.0
Truck	55.9	21.8
Rail	17.8	20.0
Pipeline	10.6	17.3
Air	2.7	0.0
Water	9.8	40.4
Other and unknown	3.2	0.0
U.S.-NAFTA exports, total	100.0	100.0
Truck ^a	70.8	42.1
Rail ^a	10.6	22.5
Pipeline ^a	0.9	2.3
Air	6.2	0.1
Water	4.1	30.5
Other and unknown ^a	7.4	2.4

^a BTS estimated the export weight for truck, rail, pipeline, and other and unknown based on value-to-weight ratios from the import data, because export weights for surface modes are not currently reported. Weight for water and air exports and imports are from the U.S. Department of Commerce, U.S. Census Bureau.

Notes: Value based on millions of U.S. dollars; weight based on millions of short tons. Percentages may not add to 100 due to rounding.

U.S. NAFTA (North American Free Trade Agreement) refers to U.S. trade with Canada and Mexico, our partners in this agreement.

Sources: **Value**—U.S. Department of Transportation (USDOT), Research and Innovative Technology Administration (RITA), Bureau of Transportation Statistics (BTS), Transborder Freight Data, available at <http://www.bts.gov/itt/>, as of September 2006. **Weight**—USDOT, RITA, BTS, *North American Freight Transportation Statistics* (Washington, DC: 2006).

5-8

Top 20 U.S. Foreign Trade Freight Gateways by Value of Shipments: 2005

(Billions of current dollars)

Rank	Gateway	Exports	Imports	Total
1	John F. Kennedy International, NY (a)	59.3	75.6	134.9
2	Los Angeles, CA (w) ^P	18.4	116.0	134.3
3	Detroit, MI (l)	68.8	61.7	130.5
4	New York, NY and NJ (w) ^P	26.2	104.2	130.4
5	Long Beach, CA (w) ^P	21.2	103.4	124.6
6	Laredo, TX (l)	40.9	52.8	93.7
7	Houston, TX (w) ^P	33.8	52.3	86.1
8	Chicago, IL (a)	29.1	44.3	73.4
9	Los Angeles Intl., CA (a)	36.5	36.4	72.9
10	Buffalo-Niagara Falls, NY (l)	32.5	38.0	70.5
11	Port Huron, MI (l)	23.6	44.6	68.2
12	San Francisco Intl., CA (a)	25.2	32.0	57.2
13	Charleston, SC (w) ^P	15.9	36.5	52.4
14	El Paso, TX (l)	18.9	24.1	43.0
15	Norfolk, VA (w) ^P	15.0	24.5	33.9
16	Baltimore, MD (w) ^P	8.6	27.0	35.6
17	Dallas/Fort Worth, TX (a)	15.4	19.7	35.1
18	Seattle, WA (w) ^P	7.7	27.3	35.0
19	Anchorage, AK (a)	8.7	26.0	34.7
20	Tacoma, WA (w) ^P	5.0	28.7	33.8

Key: a = airport; l = land port; w = water port; P = preliminary.

Notes: Trade excludes imports of less than \$1,250 and exports of less than \$2,500. Air: Includes a low level (generally less than 2%–3% of the total value) of small user-fee airports located in the same region. Air gateways not identified by airport name (e.g., Chicago, IL) include major airport(s) in that area and small regional airports. Due to Census Bureau confidentiality regulations, courier operations are included in airport totals for only JFK, Los Angeles, Chicago, and Anchorage. Numbers may not add to totals due to rounding.

Sources: **Air**—U.S. Department of Commerce, U.S. Census Bureau, Foreign Trade Division, special tabulation, October 2006. **Water**—U.S. Army Corps of Engineers, Navigation Data Center, special tabulation, November 2006. **Land**—U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Transborder Freight Data, October 2006.

5-9

U.S. Trade in Transportation-Related Commodities: 2005

(Millions of current U.S. dollars)

Commodity and code	Exports	Imports	Total trade	Balance
Motor vehicles and parts (87)	83,161	199,806	282,967	-116,645
Aircraft, spacecraft, and parts (88)	49,823	16,486	66,309	33,337
Ships, boats, and floating structures (89)	1,994	1,713	3,707	281
Railway or tramway locomotives and parts (86)	2,236	1,517	3,753	719
Total, transportation commodities	137,214	219,522	356,736	-82,308
Total, all commodities	904,380	1,670,940	2,575,320	-766,560
Transportation commodities share of trade	15.2%	13.1%	13.9%	10.7%

Notes: The numbers in parentheses are the classification categories from the Harmonized Schedule of Commodity Codes.

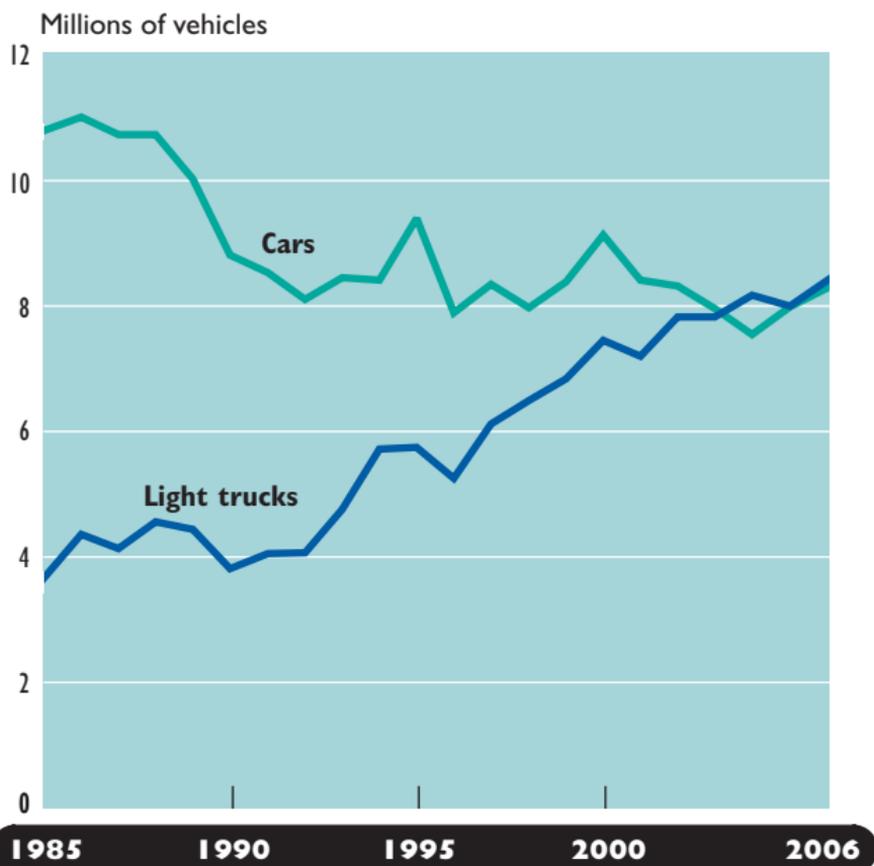
Classification category (87) also includes bicycles, wheelchairs, and baby carriages.

Total trade = exports plus imports. Balance = exports minus imports.

Source: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics; 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 September 2006.

5-10

New Passenger Car and Light Truck Sales: Model Years 1985–2006



Note: Data are based on Environmental Protection Agency (EPA) definitions of light trucks (gross vehicle weight of 8,500 pounds or less).

Source: U.S. Environmental Protection Agency, *Light-Duty Automotive Technology and Fuel Economy Trends: 1975 Through 2006*, Table 1, available at <http://www.epa.gov/otaq/fetrends.htm>, as of July 2006.

Government Transportation Revenues by Mode and Level of Government

(Millions of current dollars)

	1980	1990	2000	2003
Highway total	25,268	49,945	87,800	U
Federal:				
Highway Trust Fund—				
Highway Account ^a	7,647	13,453	30,347	28,964
State	16,287	32,644	51,073	U
Local	1,334	3,848	6,380	U
Transit total	2,397	7,193	12,674	U
Federal:				
Highway Trust Fund—				
Mass Transit Account	—	1,977	4,625	4,762
State	362	1,074	1,524	U
Local	2,035	4,142	6,525	U
Air total	4,100	10,119	21,627	U
Federal: Airport and				
Airway Trust Fund	2,274	4,945	10,544	10,088
State	190	556	852	U
Local	1,636	4,617	10,231	U
Water total	1,211	2,487	3,717	U
Federal: water receipts ^b	391	999	1,210	944
State	249	355	693	U
Local	572	1,133	1,813	U
Pipeline^c	—	10	40	57
General support^d	—	—	25	9
Total, all modes	32,977	69,753	125,882	U
Federal	10,312	21,384	46,791	44,824
State	17,088	34,629	54,142	U
Local	5,577	13,740	24,949	U

^a Since 1983, some Highway Trust Fund fuel tax has gone to transit.

^b Includes Harbor Maintenance Trust Fund, St. Lawrence Seaway tolls, Inland Waterway Trust Fund, Panama Canal receipts through 2000, Oil Spill Liability Trust Fund, Offshore Oil Pollution Fund, Deep Water Port Liability Fund, and excise taxes of the Boat Safety Program. ^c Includes federal only: Pipeline Safety Fund. ^d Includes federal only: Emergency Preparedness Fund.

Key: — = no activity or a value of zero.

Note: Numbers may not add to totals due to rounding.

Sources: 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/government_transportation_financial_statistics/index.html, as of October 2006.

5-12

Government Transportation Expenditures by Mode and Level of Government From Own Funds (Millions of current dollars)

	1980	1990	2000	2003
Highway total	34,553	62,629	103,952	U
Federal	11,706	15,517	27,759	32,633
State and local	22,847	47,112	76,192	U
Transit total	8,915	19,251	32,384	U
Federal	3,307	3,832	5,334	4,922
State and local	5,608	15,420	27,050	U
Rail total	2,419	540	767	U
Federal	2,395	534	760	1,206
State and local	23	6	7	U
Air total	5,673	12,568	22,017	U
Federal	3,762	7,305	10,481	14,153
State and local	1,911	5,263	11,536	U
Water total	4,475	5,480	7,946	U
Federal	3,308	3,537	4,814	5,475
State and local	1,167	1,943	3,132	U
Pipeline total^a	–	26	36	U
Federal	–	9	36	57
State and local	–	17	U	U
General support^b	183	191	259	8,585
Total, all modes	56,217	100,685	167,360	U
Federal	24,661	30,924	49,443	67,031
State and local	31,556	69,760	117,916	U

^a Includes gas and liquid pipeline. ^b Includes federal only: administrative and operating expenditures of the Office of the Secretary of Transportation (excluding outlays for Payments to Air Carriers and Commission on Aircraft Safety programs included under "Air" above), the Interstate Commerce Commission (1995 and prior), Office of the Inspector General, the Research and Special Programs Administration (excluding outlays for the Pipeline Safety program included in "Pipeline" above), the National Transportation Safety Board, the Bureau of Transportation Statistics, and the Surface Transportation Board.

Key: – = no activity or a value of zero; U = unavailable.

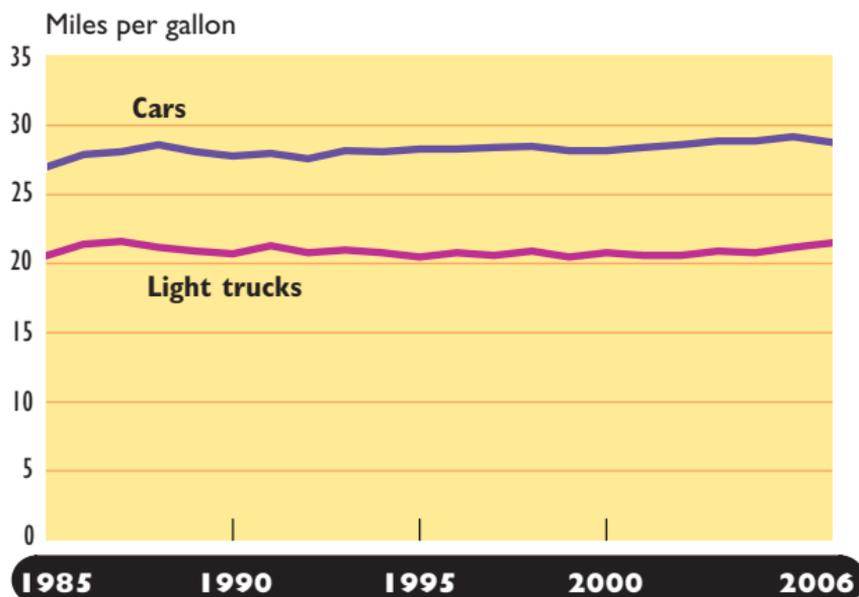
Notes: Expenditures are from "own funds" for specified level of government. Federal includes direct spending and grants to states and localities. State and local includes outlays from all sources except federal grants. Numbers may not add to totals due to rounding. Only federal government expenditures are included for 2003.

Sources: 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/government_transportation_financial_statistics/index.html, as of October 2006.

While transportation enhances the quality of our lives, it also generates environmental impacts that can lead to human health problems and ecological damage. Overall, most transportation air emissions, such as particulates, have declined since 1980 despite significant increases in U.S. population, Gross Domestic Product, and vehicle-miles traveled. Only ammonia among criteria pollutants remains above its 1990 level. However, carbon dioxide emissions from transportation fuel use have risen.

6-1

New Passenger Car and Light Truck Fuel Economy Averages: Model Years 1985–2006

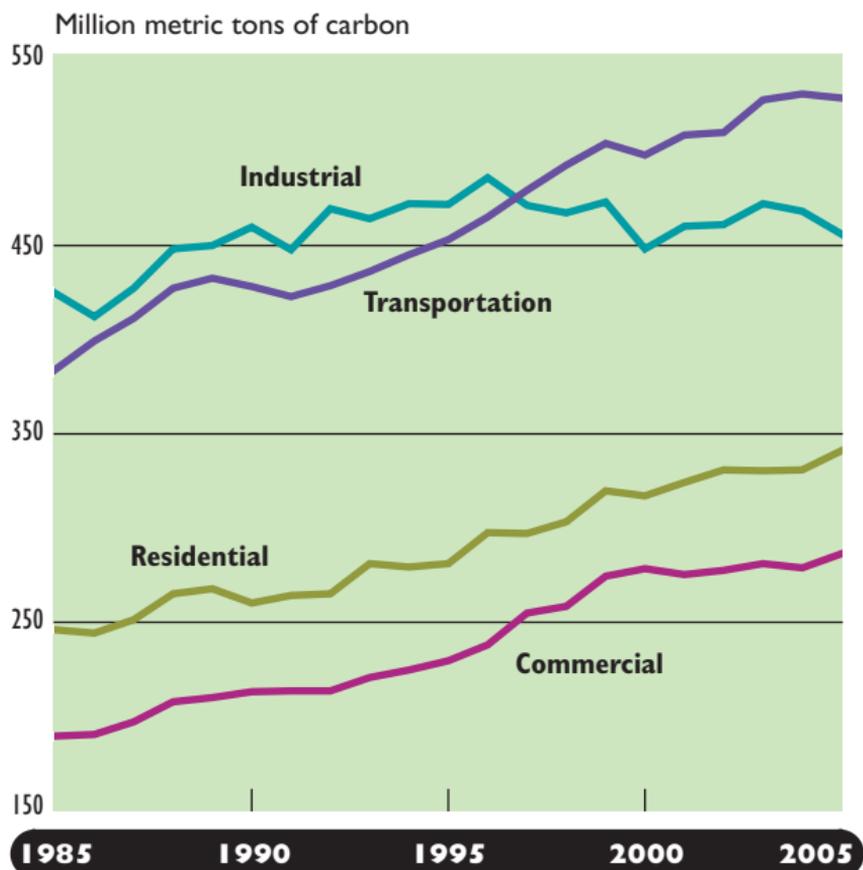


Notes: 2005 data are revised from the previous edition. 2006 data are preliminary.

Source: U.S. Environmental Protection Agency, *Light-Duty Automotive Technology and Fuel Economy Trends: 1975 Through 2006*, Table I, available at: <http://www.epa.gov/otaq/fetrends.htm>, as of July 2006.

6-2

U.S. Carbon Dioxide Emissions from Energy Use: 1985–2005



Notes: 2005 data are preliminary.

One ton of carbon equals 3.667 tons of carbon dioxide gas. Electric utility emissions are distributed across sectors.

Sources: 1985–1989—U.S. Department of Energy (USDOE), Energy Information Administration (EIA), *Emissions of Greenhouse Gases in the United States*, Appendix E, available at <http://www.eia.doe.gov>, as of December 2005. 1990–2004—USDOE, EIA, U.S. Carbon Dioxide from Energy Sources 2005 Flash Estimate, available at <http://www.eia.doe.gov/>, as of June 2006.

6-3

Wetlands Impacted and Mitigated Under the Federal-Aid Highway Program

	2000	2001	2002	2003	2004	2005
Acres impacted	2,041	1,905	1,942	1,278	847	1,139
Acres mitigated	7,671	4,017	5,198	3,431	1,763	3,741
Acres gained (net)	5,630	2,112	3,256	2,153	916	2,292
Mitigation ratio	3.8:1	2.1:1	2.7:1	2.7:1	2.1:1	3.3:1

Notes: These data cover wetlands acreage affected by Federal-Aid Highway projects, approximately 24% of the total mileage of the U.S. public roads. These data are collected by states using varying collection methodologies. The mitigation ratio equals acres mitigated to acres impacted.

Source: **2000-2004**—U.S. Department of Transportation (USDOT), Federal Highway Administration (FHWA), Federal Highway Administration Wetland Mitigation Performance Measure for Federal-Aid Highway Projects Fiscal Year 2004, available at <http://fhwa.dot.gov/environment/perform/wetrpt04.htm>.

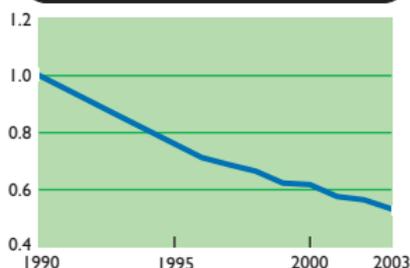
2005—USDOT, FHWA, personal communication, September 2006.

6-4

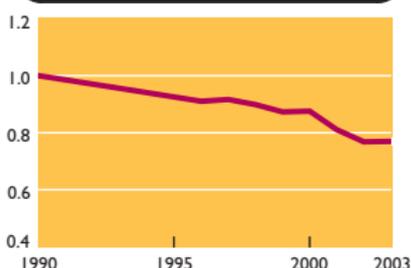
Index of Key Air Pollutant Emissions from U.S. Transportation: 1990–2003

Index: 1990 = 1.0

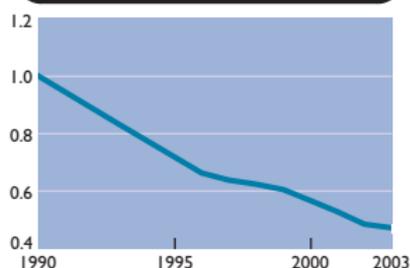
Carbon monoxide



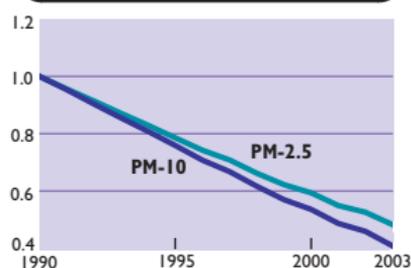
Nitrogen oxides



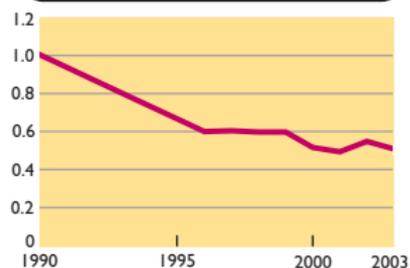
Volatile organic compounds



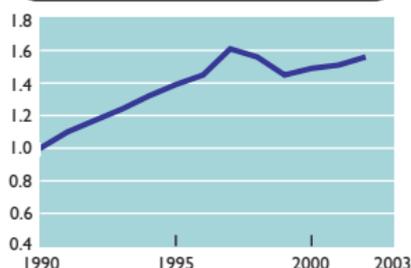
PM-10; PM-2.5



Sulfur Dioxide



Ammonia



Key: PM-10 and PM-2.5 = airborne particulates of less than 10 microns or 2.5 microns, respectively.

Notes: Data in the previous edition include all onroad mobile sources and some nonroad mobile sources. EPA revised the emissions estimation methodology for onroad mobile sources. EPA discontinued lead emissions estimates in 2001.

Source: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, *Air Emissions Trend*, available at <http://www.epa.gov/airtrends/2005/econ-emissions.html>.

Glossary

- Air carrier**—Certificated provider of scheduled and nonscheduled services.
- Chained dollars**—A method to measure real changes in dollar values between years that uses chain-type indexes, rather than constant dollars. The method first calculates the real changes between adjacent years. Annual rates of real changes are then chained (multiplied) together to obtain the rate of real changes between nonadjacent years.
- Class I railroad**—A freight railroad with an annual gross operating revenue indexed to a base of \$250 million in 1991 dollars. In 2004, the adjusted base had increased to \$289.5 million.
- Commercial waterway facilities**—Waterway facilities as counted by the U.S. Army Corps of Engineers are piers, wharves, and docks. Not included are those facilities used exclusively for recreational or active military craft and generally those providing nonmaritime use.
- Commuter rail**—Urban/suburban passenger train service for short-distance travel between a central city and adjacent suburbs run on tracks of a traditional railroad system. Does not include heavy- or light-rail transit service.
- Congestion cost**—Value of travel time delay (estimated at \$13.45 per hour of person travel and \$71.05 per hour of truck travel) and excess fuel consumption (estimated using the average cost per gallon by state).
- Contracted service (purchased transportation)**—Transportation service provided to a public transit agency or governmental unit from a public or private transportation provider based on a written contract.
- Delay**—The extra travel time (hours) spent traveling at congested speeds rather than free-flow speeds (60 mph on freeways and 35 mph on principal arterials) divided by the number of persons making a trip during the peak period (6:00 a.m.–9:30 a.m. and 3:30 p.m.–7:00 p.m.).
- Demand-response transit**—A nonfixed-route, nonfixed-schedule form of transportation that operates in response to calls from passengers or their agents to the transit operator or dispatcher.
- Directional route-miles**—The sum of the mileage in each direction over which transit vehicles travel while in revenue service.
- Directly operated service**—Transportation service provided directly by a transit agency, using their employees to supply the necessary labor to operate the revenue vehicles.

Draft—The depth of water a vessel draws, loaded or unloaded.

General aviation—Civil aviation operations other than those air carriers holding a Certificate of Public Convenience and Necessity. Types of aircraft used in general aviation range from corporate, multi-engine jets piloted by a professional crew to amateur-built, single-engine, piston-driven, acrobatic planes.

Gross Domestic Product—The total value of goods and services produced by labor and property located in the United States. As long as the labor and property are located in the United States, the suppliers may be either U.S. residents or residents of foreign countries.

Heavy-rail transit—High-speed transit rail operated on rights-of-way that exclude all other vehicles and pedestrians.

Hub area—As used here, a geographic area based on the percentage of total enplaned passengers in that area. A hub area can comprise more than one airport and falls into one of the following classes: large, a community enplaning 1% or more of the total enplaned passengers; medium, 0.25%–0.99%; small, 0.05%–0.24%; nonhub area, less than 0.05%. The definition of hub used here should not be confused with airline usage of the term to describe “hub-and-spoke” route structures or other definitions of hubs used by the Federal Aviation Administration, which focus on traffic at individual airports.

Intermodal—Transportation activities involving more than one mode of transportation, including transportation connections, choices, cooperation, and coordination of various modes.

Large certificated air carrier—Carriers operating aircraft with a maximum passenger capacity of more than 60 seats or a maximum payload of more than 18,000 pounds. These carriers are also grouped by annual operating revenues: 1) majors—more than \$1 billion; 2) nationals—between \$100 million and \$1 billion; 3) large regionals—between \$20 million and \$99,999,999; and 4) medium regionals—less than \$20 million.

Long-distance travel—As defined in the Bureau of Transportation Statistics National Household Travel Survey, long-distance trips are trips of 50 miles or more from home to the farthest destination traveled and include the return component as well as any overnight stops and stops to change transportation mode.

Light-rail transit—Urban transit rail operated on a reserved right-of-way that may be crossed by roads used by motor vehicles and pedestrians.

Light truck—Trucks of 10,000 pounds gross vehicle weight rating or less, including pickup trucks, vans, truck-based station wagons, and sport utility vehicles.

Metric ton—A unit of weight equal to 2,204.6 pounds.

North American Industry Classification System

(NAICS)—NAICS (established in April 1997) replaces the Standard Industrial Classification (SIC) and groups producing and nonproducing economic activities into 20 sectors and 1,170 industries in the United States version. It was developed to provide common industry definitions for Canada, Mexico, and the United States to facilitate analyses of the economies of the three countries.

Nonself-propelled vessels—Includes dry cargo, tank barges, and railroad car floats that operate in U.S. ports and waterways.

Particulates—Carbon particles formed by partial oxidation and reduction of hydrocarbon fuel. Also included are trace quantities of metal oxides and nitrides, originating from engine wear, component degradation, and inorganic fuel additives.

Passenger-mile—One passenger transported one mile. For example, one vehicle traveling 3 miles carrying 5 passengers generates 15 passenger-miles.

Self-propelled vessels—Includes dry cargo vessels, tankers, and offshore supply vessels, tugboats, pushboats, and passenger vessels, such as excursion/sightseeing boats, combination passenger and dry cargo vessels, and ferries.

Short-ton—A unit of weight equal to 2,000 pounds.

Standard Industrial Classification (SIC)—SIC (first used in 1937) groups establishments by primary activity to ease data collection, tabulation, presentation, and analysis. SIC was intended to promote greater uniformity and comparability in data presentations by government, industry, and research institutions. SIC classifies industries by composition and structure of the economy.

Ton-miles—A unit of measure equal to the movement of one ton over one mile.

Truck:

Single unit—A large truck on a single frame with at least 2 axles and 6 tires. Excludes “other 2-axle, 4-tire vehicles” noted above.

Combination—A power unit (truck or truck tractor) and one or more trailing units.

Vehicle-mile—One vehicle traveling one mile.

Statistics published in this *Pocket Guide to Transportation* come from many different sources. Some statistics are based on samples and are subject to sampling variability. Statistics may also be subject to omissions and errors in reporting, recording, and processing.

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Ship in Baltimore Harbor
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National Railroad Passenger
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