

Pocket Guide to Transportation 2011



For additional copies of this guide or information about the Bureau of Transportation Statistics and its products and services, contact:

Product Orders

Internet: http://www.bts.gov/publications/pocket_guide_to_transportation/2011/

Mail: Product Orders
Research and Innovative
Technology Administration
Bureau of Transportation Statistics
ATTN: Product Orders
1200 New Jersey Avenue, SE, Room
E36-109
Washington, DC 20590

Information Service

Phone: 1-800-853-1351
Email: RITAinfo@dot.gov

January 2011

Pocket Guide to Transportation 2011



U.S. Department of Transportation

Research and Innovative Technology Administration

U.S. Department of Transportation

Ray LaHood
Secretary

John D. Porcari
Deputy Secretary

Research and Innovative Technology Administration

Peter H. Appel
Administrator

Robert L. Bertini, Ph.D.
Deputy Administrator

Bureau of Transportation Statistics

Steven K. Smith, Ph.D.
Acting Director

Acknowledgments

Produced under the direction of:

Deborah Johnson
*Assistant Director for
Transportation Analysis*

Project Manager

Sean Jahanmir

Contributors

Steven Anderson
David Chesser, Ph.D.
Bingsong Fang, Ph.D.
Chester Ford
Xiaoli Han, Ph.D.
Getachew Mekonnen
Adam Mengesha
William Moore
Long Nguyen
Hilary Ross
Gang Shao, Ph.D.
Michael Spencer
Lei Tang, Ph.D.
Alpha Glass Wingfield

Contents

Safety 2

State of Good Repair 11

Livable Communities 15

Economic Competitiveness 27

Environmental Sustainability 42

Glossary 48

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

Context	1990	2009
Resident population (thousands)	248,791	307,007
Total area (thousand sq. mi.)	3,718	3,794 (2000) ^a
Total civilian labor force (thousands)	125,840	154,142
Real gross domestic product ^b (trillions)	\$8.0	\$12.9
Median household income ^{b,c}	\$41,465	\$45,410
Average household income ^{b,c}	\$44,160	\$57,342
Average household expenditures ^{b,c}	\$39,338	\$44,909
Number of households (thousands)	93,347	117,538
Life expectancy at birth (years)	75.4	77.9 (2007)

^a 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 Data in 2005 chained dollars (see Glossary for definition). ^c BTS calculations, November 2010.

Sources: **Area**—U.S. Department of Commerce (USDOC), U.S. Census Bureau, *Statistical Abstract of the United States: 2002 and 2010*, available at www.census.gov as of November 2010. **GDP**—USDOC, Bureau of Economic Analysis, available at www.bea.gov as of November 2010. **Population, number of households, and median household income**—USDOC, U.S. Census Bureau, available at www.census.gov as of November 2010. **Average household income and expenditures, and labor force**—U.S. Department of Labor, Bureau of Labor Statistics, available at www.bls.gov as of November 2010. **Life expectancy**—Centers for Disease Control and Prevention, available at www.cdc.gov as of November 2010.

The safety of the traveling public is the number one concern of the U.S. Department of Transportation. Although progress has been made in reducing fatalities, roughly 94 percent of transportation fatalities arose from motor vehicle crashes. Injuries from crashes are a major U.S. public health issue.

I-1

Transportation Fatalities by Mode: 1990–2009

Mode	1990	2005	2008	2009
Air				
Large U.S. air carrier ^a	39	22	3	52
Commuter air carrier ^a	6	0	0	0
On-demand air taxi ^a	51	18	69	17
General aviation ^a	770	563	494	474
Highway^b	44,599	43,510	37,423	33,808
Pipeline, gas and hazardous liquid	9	14	8	13
Railroad^c	599	525	514	458
Transit^d	339	236	240	230
Waterborne				
Vessel-related, commercial ship	85	78	51	57
Nonvessel-related ^e , commercial ship	101	60	67	93
Recreational boating	865	697	709	736

^a Includes airborne and ground-level fatalities. ^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, on-demand service, van pool, and automated guideway. ^e Fatalities unrelated to vessel operations, e.g., individual falling overboard and drowning.

Notes: Data for 2008 has been revised for on-demand air taxi, general aviation, highway, railroad and transit. Air and railroad fatalities in 2009 are preliminary.

Sources: **Air**—National Transportation Safety Board. **Highway**—National Highway Traffic Safety Administration. **Pipeline**—Office of Pipeline Safety. **Rail**—Federal Railroad Administration. **Transit**—Federal Transit Administration and personal communication. **Water**—U.S. Coast Guard as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 2-1, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2011.

Distribution of Transportation Fatalities: 2009

Category	Number	%
Passenger car occupants	13,095	36.38
Light-truck occupants	10,287	28.58
Motorcycle riders	4,462	12.40
Pedestrians struck by motor vehicles	4,092	11.37
Recreational boating	736	2.04
Pedalcyclists struck by motor vehicles	630	1.75
Other and unknown motor vehicle occupants	563	1.56
Large-truck occupants	503	1.40
General aviation	474	1.32
Railroad trespassers (excl. grade crossings) ^a	428	1.19
Other nonoccupants struck by motor vehicles ^b	150	0.42
Heavy rail transit (subway)	96	0.27
Waterborne transportation (nonvessel-related)	93	0.26
Grade crossings, not involving motor vehicles ^c	66	0.18
Transit buses, accident-related fatalities	63	0.18
Waterborne transportation (vessel-related)	57	0.16
Air carriers	52	0.14
Light rail transit	33	0.09
Rail employees and contractors on duty ^a	28	0.08
Bus occupants (school, intercity, transit)	26	0.07
Private grade crossings, with motor vehicles ^a	19	0.05
Air taxi	17	0.05
Gas distribution pipelines	9	0.03
Demand response transit, accident-related fatalities	5	0.01
Transit buses, fatalities not related to accidents ^d	4	0.01
Hazardous liquid pipelines	4	0.01
Passengers on railroad trains	3	0.01
Demand response transit, fatalities not related to accidents ^d	2	0.01
Total, all modes^e	35,997	100.00
Other counts, redundant with above		
Crashes involving large trucks ^e	3,380	
Public grade crossings, with motor vehicles ^a	161	
Commuter rail	67	

^a Includes fatalities outside trains. ^b Includes all nonoccupant fatalities in motor vehicle crashes, except pedalcyclists and pedestrians. ^c Public grade crossing fatalities involving motor vehicles are included in motor vehicle counts. ^d Includes large truck occupants, other vehicle occupants, and nonoccupants. ^e Unless otherwise noted, includes fatalities outside vehicles.

Notes: Fatality data are preliminary for general aviation, air carriers, air taxi, railroad trespassers (excluding grade crossings), passengers on railroad trains, on-duty rail employees and contractors, commuter air, grade crossing not involving motor vehicles, public grade crossing with motor vehicles and private grade crossings with motor vehicles.

There were no fatalities related to gas transmission pipeline or commuter air in 2009.

Sources: **Air**—National Transportation Safety Board. **Highway**—National Highway Traffic Safety Administration. **Rail**—Federal Railroad Administration. **Transit**—Federal Transit Administration. **Waterborne**—U.S. Coast Guard, Recreational boating—U.S. Coast Guard, Office of Boating Safety. **Pipeline**—Pipeline and Hazardous Materials Safety Administration as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 2-4, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2011.

Alcohol-Related Fatalities in Motor Vehicle Crashes by Person Type and Crash Type: 2009

Crash category	Fatalities in category ^a	Alcohol involvement ^b	% Alcohol involvement ^c
Occupants	28,936	11,890	41.1
Single-vehicle crashes	15,386	7,806	50.7
Two-vehicle crashes	11,458	3,443	30.0
More than two-vehicle crashes	2,092	641	30.6
Pedestrians	4,092	1,997	48.8
Single-vehicle crashes	3,736	1,806	48.3
Multiple-vehicle crashes	356	191	53.7
Pedalcyclists	630	252	40.0
Single-vehicle crashes	600	237	39.5
Multiple-vehicle crashes	30	16	53.3
Others/unknown	150	49	32.7
Total	33,808	14,188	42.0

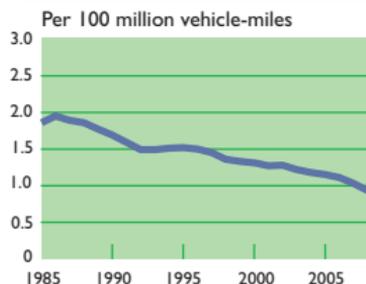
^a Total fatalities. ^b Total alcohol-related fatalities. ^c Alcohol-related fatalities as a percentage of total fatalities.

Notes: Category numbers may not sum to totals due to rounding. A motor vehicle crash is considered to be alcohol-related if at least one driver or nonoccupant (e.g., 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 of alcohol concentration are unknown. 2009 data are preliminary.

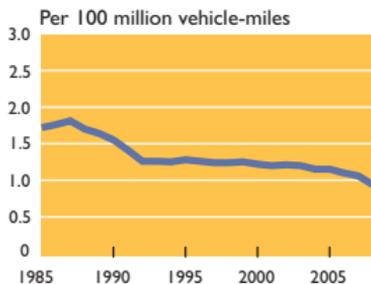
Source: U.S. Department of Transportation, National Highway Traffic Safety Administration, *Fatality Analysis Reporting System (FARS) Database*, personal communication, November 2010 as cited in USDOT, RITA, BTS, *National Transportation Statistics*, table 2-20, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2011.

Fatality Rates for Selected Modes: 1985–2008

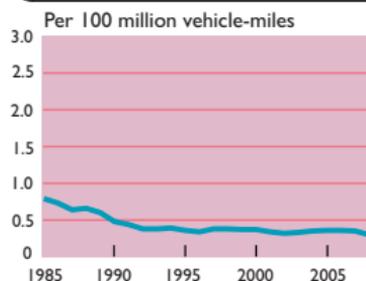
Passenger car occupants



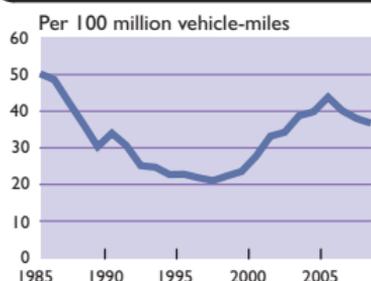
Light-truck occupants



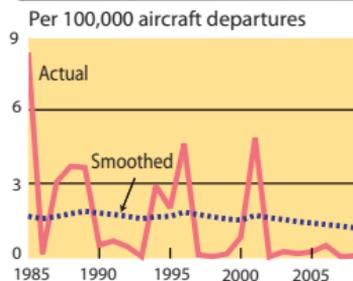
Large-truck occupants



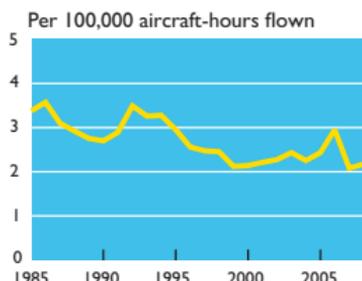
Motorcycle riders



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 onboard fatalities. 2007 passenger car occupant, light-truck occupant, large-truck occupant, and motorcycle rider data are revised. 1992, 1995, 1998, and 2006 are revised for general aviation fatalities and rates.

Sources: Passenger car occupants, Light-truck occupants, Large-truck occupants, and Motorcycle riders—U.S. Department of Transportation, National Highway Traffic Safety Administration, National Center for Statistics and Analysis, *Traffic Safety Facts 2008*, table 7 to 10, available at <http://www-nrd.nhtsa.dot.gov> as of October 2010. Air carriers and General aviation—National Transportation Safety Board, *Annual Review of Aircraft Accident Data—U.S. Air Carrier Operations and U.S. General Aviation*, available at <http://www.nts.gov> as of October 2010 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, tables 2-9 and 2-14, available at http://www.bts.gov/publications/national_transportation_statistics/ as of October 2010.

Injured Persons by Transportation Mode: 1990–2009

Mode	1990	2000	2008	2009
Air				
Large U.S. air carrier ^a	29	31	23	23
Commuter air carrier ^a	11	7	2	1
On-demand air taxi ^a	36	12	12	4
General aviation ^a	409	309	258	278
Highway^b	3,230,666	3,188,750	2,346,000	2,217,000
Pipeline, gas and hazardous liquid	76	81	63	67
Railroad^c	22,736	10,424	7,993	7,103
Transit^d	54,556	56,697	23,222	21,420
Waterborne				
Vessel-related, commercial ship	175	150	152	132
Nonvessel-related, commercial ship ^e	U	607	464	379
Recreational boating	3,822	4,355	3,331	3,358

^a Includes serious injuries only. ^b Includes passenger car occupants, motorcyclists, light-duty and large-truck occupants, bus occupants, occupants of unknown vehicle types, and pedestrians, pedalcyclists, and other nonmotorists. ^c Injuries resulting from train accidents, train and nontrain incidents, and occupational illness. Includes Amtrak, as well as train occupants and nonoccupants except motor vehicle occupants at grade crossings. ^d Injuries resulting from all reportable incidents, not just from accidents. Includes commuter rail, heavy rail, light rail, motorbus, on-demand service, van pool, and automated guideway. The drop in the number of injuries in 2008 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. ^e Injuries unrelated to vessel operations.

Key: U = unavailable.

Notes: Reporting criteria and/or estimation methods for injuries are not standardized across modes. Large U.S. air carrier data for 2000 are revised. 2008 data have been revised with the exception of commuter air carrier, general aviation, pipeline, and waterborne data.

Sources: **Air**—National Transportation Safety Board. **Highway**—National Highway Traffic Safety Administration. **Pipeline**—Pipeline and Hazardous Materials Safety Administration. **Railroad**—Federal Railroad Administration. **Transit**—Federal Transit Administration. **Waterborne**—United States Coast Guard as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 2-2, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2011.

State Laws on Distracted Driving: Bans on Hand-Held Devices and Texting While Driving as of October 2010

State	Ban on handheld devices	Texting ban	State	Ban on handheld devices	Texting ban
AL			MT		
AK		✓	NE		✓
AZ			NV		
AR		✓	NH		✓
CA	✓	✓	NJ	✓	✓
CO		✓	NM		
CT	✓	✓	NY	✓	✓
DE	✓	✓	NC		✓
DC	✓	✓	ND		
FL			OH		
GA		✓	OK		
HI			OR	✓	✓
ID			PA		
IL		✓	RI		✓
IN			SC		
IA		✓	SD		
KS		✓	TN		✓
KY		✓	TX		
LA		✓	UT		✓
ME			VT		✓
MD	✓	✓	VA		✓
MA		✓	WA	✓	✓
MI		✓	WV		
MN		✓	WI		✓
MS			WY		✓
MO			PR		
			U.S., total	9	31

Note: While nine States have universal bans on hand-held devices and texting, many other States have partial bans on either or both that restrict use for novice drivers or bus drivers. Delaware's laws were passed in 2010 but not enforced until Jan. 2, 2011. In Iowa and Virginia, secondary enforcement is applied to texting while driving. In Maryland, secondary enforcement is applied to using hand-held devices while driving. The term "secondary enforcement" means that motorists must be stopped for another violation before they can be cited for texting or using a cell phone.

Source: U.S. Department of Transportation, National Highway Traffic Safety Administration, *State Laws on Distracted Driving*, available at <http://www.distracted.gov/state-laws/> as of Oct. 27, 2010

Hazardous Materials Transportation Incidents, Injuries, and Fatalities: 1990–2009

	1990	2000	2007	2008	2009
Highway	7,297	15,063	16,932	14,808	12,728
Accident-related	249	329	321	302	252
Injuries	311	164	161	153	153
Fatalities	8	16	9	6	12
Rail	1,279	1,058	752	750	643
Accident-related	48	62	53	26	37
Injuries	73	82	56	63	38
Fatalities	0	0	0	1	1
Air	297	1,419	1,556	1,278	1,358
Accident-related	0	3	7	8	2
Injuries	39	5	8	7	10
Fatalities	0	0	0	0	0
Water	7	17	61	98	90
Accident-related	0	0	0	0	0
Injuries	0	0	3	0	0
Fatalities	0	0	0	0	0
Pipeline	1990	2000	2007	2008	2009
Natural gas distribution	110	154	153	149	158
Injuries	52	59	36	56	52
Fatalities	6	22	9	7	9
Natural gas transmission	89	80	132	141	129
Injuries	17	18	7	5	11
Fatalities	0	15	2	0	0
Liquid	180	146	120	145	117
Injuries	7	4	10	2	4
Fatalities	3	1	4	2	4

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. Pipeline data contains all incidents reported to PHMSA based on the reporting criteria in effect at the time of the incidents. Natural gas transmission includes gathering system. The 2007 data are revised for total highway incidents, accident-related incidents, and fatalities; for rail accident-related incidents; for total air incidents; and total liquid incidents. The 2008 highway data and natural gas distribution data are revised, as are incidents for rail, air, and hazardous liquid categories. Hazardous liquid incident figures reflect all incidents, which differ from previous editions of *Pocket Guide* reporting significant incidents only.

Sources: Highway, Rail, Air and Water—USDOT, Pipeline and Hazardous Materials Safety Administration (PHMSA), *Hazardous Materials Information System Database*, available at <http://www.phmsa.dot.gov/hazmat/library/data-stats> as of November 2010 as reported in USDOT, RITA, BTS, *National Transportation Statistics*, table 2-6, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2011. Pipeline—USDOT, PHMSA, Office of Pipeline Safety, *Accident/Incident and Mileage Summary Stats*, available at <http://ops.dot.gov/stats/stats.htm> as of December 2010.

1-8

Prohibited Items Intercepted at U.S. Airport Screening Checkpoints: 2006–2009

Items	2006	2007	2008	2009
Knives ^a	1,607,125	1,056,687	626,182	N
Incendiaries and explosive/flammable materials	113,700	89,623	116,200	127,176
Other cutting instruments ^a	163,419	101,387	59,459	N
Clubs ^a	12,296	9,443	6,447	N
Box cutters ^a	15,999	11,908	6,284	N
Firearms	2,075	1,416	902	889
Other ^a	11,797,145	5,245,558	157,336	1,396
Total prohibited items	13,711,759	6,516,022	972,810	129,461

^a 2008 consists of data up to Aug. 8, 2008 with the exception of Firearms and Incendiaries. TSA has stopped the collection of data on all prohibited items except for Firearms and Incendiaries as of Aug. 8, 2008.

Key: N = data are nonexistent.

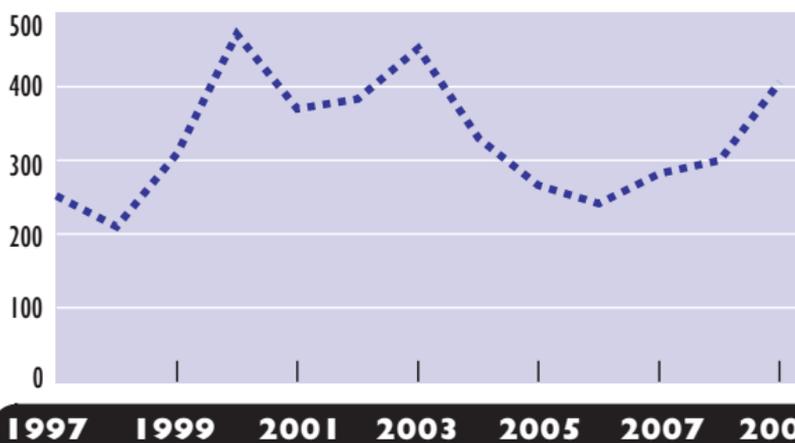
Notes: Other cutting instruments include scissors, hatchets, swords, sabers, meat cleavers, ice axes, and picks. Effective Dec. 22, 2005, scissors less than 4 inches and tools less than 7 inches were no longer prohibited. Knives include any length and type except round-bladed, butter, and plastic cutlery. 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, lighters, and certain sporting goods. Lighters (except for torch lighters and micro torches) were removed from the prohibited items list effective Aug. 4, 2007.

Source: U.S. Department of Homeland Security, Transportation Security Administration, personal communication, November 2010 as reported in USDOT, RITA, BTS, *National Transportation Statistics*, table 2-16b, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2011.

1-9

International Piracy and Armed Robbery at Sea: 1997–2009

Number of incidents



Notes: Incidents include attempts and threatening actions. 2008 data are revised.

Source: International Maritime Organization, *Reports on Acts of Piracy and Armed Robbery Against Ships: Annual Report*, available at <http://www.imo.org> as of August 2010.

The U.S. transportation system is an extensive, interrelated 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, conduct business, ship goods within the United States and abroad and travel on vacations. The transportation system links regions and connects urban and rural areas.

2-1

The Transportation Network: 2009

Mode	Components
Highway (2008)	Public roads 47,011 miles of Interstate highway 117,084 miles of other National Highway System roads 3,895,244 miles of other roads
Air	Public-use airports 5,178 airports <hr/> Airports serving large certificated carriers (enplaned passengers) 25 large hub areas ^a (71 airports), 461 million passengers 36 medium hub areas (65 airports), 127 million passengers 74 small hub areas (93 airports), 55 million passengers 890 nonhub areas (924 airports), 20 million passengers
Rail (2008)	Miles of railroad operated 94,082 miles by Class I freight railroads in the United States ^b 16,690 miles by regional freight railroads 28,554 miles by local freight railroads 21,178 miles by Amtrak (passenger) ^c

continued next page

Mode	Components
------	------------

Urban transit	Directional route-miles^d
----------------------	--

Bus: 238,360 ^e
Trolley bus: 456 ^e
Commuter rail: 7,561
Heavy rail: 1,623
Light rail: 1,477

Stations

Commuter rail: 1,214
Heavy rail: 1,041
Light rail: 836

Water	Navigable channels: 25,320 miles (2008)
--------------	--

Ferry routes: 697 directional route-miles
--

Commercial waterway facilities^a

Great Lakes: 646
Inland: 1,883 shallow-draft
Ocean: 5,821
Lock chambers: 238

Pipeline	Miles of oil pipe
-----------------	--------------------------

Total oil: 172,048

Miles of gas pipe

Transmission: 301,896
Distribution: 1,217,967

^a See Glossary for definitions. ^b There are also 561 miles of railroad operated within the U.S. Class I freight railroad system that are owned by Canadian railroads. ^c Approximately 97% of the trackage on which Amtrak operates is owned by other railroads. ^d Directional route-miles includes both directly operated and purchased transport service. ^e Includes directional route-miles on exclusive right-of-way, controlled right-of-way, and mixed traffic.

Sources: **Highway**—USDOT, FHWA, *Highway Statistics 2008* (Washington, DC: 2009), table HM-18. **Air**—Public-use airports: FAA as cited in USDOT, RITA, BTS, *National Transportation Statistics*, tables 1-3, available at http://www.bts.gov/publications/national_transportation_statistics/ as of October 2010. Airports serving large certificated carriers: USDOT, RITA, BTS, Airport Activity Statistics of Certificated Air Carriers, Summary Tables, October 2010. **Rail**—Association of American Railroads, *Railroad Facts 2009*. **Transit**—USDOT, Federal Transit Administration, *National Transit Database 2009*, tables 21, 23, and 24, available at <http://www.ntdprogram.gov/ntdprogram/data.htm> as of November 2010.

Water—Commercial waterway facilities—U.S. Army Corps of Engineers, Institute for Water Resources, Navigation Data Center, *The U.S. Waterway System Facts, December 2009* (Alexandria, VA: 2009). Navigable channels—U.S. Army Corps of Engineers as cited in USDOT, RITA, BTS, *National Transportation Statistics*, table 1-1, available at http://www.bts.gov/publications/national_transportation_statistics/ as of October 2010. **Pipeline**—PHMSA as cited in USDOT, RITA, BTS, *National Transportation Statistics*, tables 1-1 and 1-10, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2011.

Number of Aircraft, Railcars, Vehicles, and Vessels: 1990–2008

Mode	1990	2000	2007	2008
Air				
Air carrier	6,083	8,055	8,044	7,856
General aviation	198,000	217,533	231,607	228,663
Highway				
Automobiles	133,700,496	133,621,420	135,932,930	137,079,843
Other 2-axle, 4-tire vehicles ^a	48,274,555	79,084,979	101,469,615	101,234,849
Buses (municipally owned transit and commercial, federal, and school buses)	626,987	746,125	834,436	843,308
Motorcycles	4,259,462	4,346,068	7,138,476	7,752,926
Trucks				
Single-unit	4,486,981	5,926,030	6,806,630	6,790,882
Combination	1,708,895	2,096,619	2,220,995	2,215,856
Rail—Passenger				
Amtrak—Cars	1,863	1,894	1,164	1,177
Amtrak—Locomotives	318	378	270	278
Commuter railcars and locomotives	4,982	5,497	6,279	6,494
Transit ^b	11,477	11,617	13,024	13,325
Rail—freight				
Class I—Freight cars	658,902	560,154	460,172	450,297
Class I—Locomotives	18,835	20,028	24,143	24,003
Other freight cars ^c	553,359	820,642	925,537	942,675
Waterborne				
Nonsel-propelled vessels (barges) ^{d,e}	31,209	33,152	31,654	31,238
Self-propelled vessels ^{d,e}	8,236	8,202	9,041	9,063
Oceangoing ships ^e (1,000 gross tons and over)	636	454	275	272
Recreational boats (numbered boats)	10,996,253	12,782,143	12,875,568	12,692,892

^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 transit only. ^c Includes Non-class I and car companies' and shippers' freight cars only. ^d See Glossary for definitions. ^e U.S.-flag vessels. 1990 and 2000 data include private and government owned vessels of 1,000 gross tons and over. Beginning in 2007, data are for privately-owned vessels of 1,000 gross tons and over.

Note: Transit and commuter rail data for 2000 and 2007 are revised, as are oceangoing ships data for 1990 and 2000.

Sources: **Air**—Federal Aviation Administration. **Highway**—Federal Highway Administration. **Rail**—Amtrak and Association of American Railroads. **Transit**—American Public Transportation Association. **Waterborne**—U.S. Army, Corps of Engineers, U.S. Coast Guard, and Maritime Administration 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/publications/national_transportation_statistics/ as of July 2010.

Condition of U.S. Highway Bridges: 1990–2009

Mode	1990	2000	2008	2009
Total all bridges	572,205	589,674	601,396	603,259
Urban	108,770	133,384	153,407	156,305
Rural	463,435	456,290	447,989	446,954
Structurally deficient bridges, total	137,865	86,678	71,461	71,177
Urban	16,847	13,079	12,896	12,828
Rural	121,018	73,599	58,565	58,349
Functionally obsolete bridges, total	100,355	81,510	79,933	78,477
Urban	30,266	29,398	33,691	33,743
Rural	70,089	52,112	46,242	44,734

Notes: Explanations for the terms “structurally deficient” and “functionally obsolete” can be found on pages 14 and 15 in chapter 3 of the Federal Highway Administration’s *2006 Conditions and Performance Report*, available at <http://www.fhwa.dot.gov/policy/2006cpr/pdfs/chap3.pdf> as of October 2010. U.S. totals include the 50 States, the District of Columbia, and Puerto Rico. Data include: rural—interstate, principal arterial, minor arterial, major collector, minor collector, and local roads; urban—interstate, other freeways or expressways, other principal arterial, minor arterial, collector, and local roads. Data are as of December for 1990, 2008, and 2009 of those years and as of August for the year 2000.

Sources: **1990 and 2000:** U.S. Department of Transportation, Federal Highway Administration, Office of Bridge Technology, National Bridge Inventory (NBI), personal communications, August 2001 and April 2008. **2008 and 2009:** *Ibid.*, Count, Area, Length of Bridges by Highway System, available at <http://www.fhwa.dot.gov/bridge/britab.htm> as of April 2010 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table I-27, available at http://www.bts.gov/publications/national_transportation_statistics/ as of October 2010.

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

3-1

Vehicle-Miles: 1990–2008*(Millions)*

Mode	1990	2000	2007	2008
Air				
Air carrier	3,963	5,662	6,733	6,446
Highway				
Passenger cars	1,408,266	1,600,287	1,672,467	1,615,850
Other 2-axle, 4-tire vehicles ^a	574,571	923,059	1,112,271	1,108,603
Motorcycles	9,557	10,469	13,621	14,484
Buses ^b	5,726	7,590	6,980	7,114
Trucks				
Single-unit	51,901	70,500	82,014	83,951
Combination	94,341	135,020	145,046	143,507
Total Highway	2,144,362	2,746,925	3,032,399	2,973,509
Rail^c				
Transit ^d	561	647	741	762
Commuter	213	271	325	337
Intercity/Amtrak ^e	301	368	267	272
Class I freight	26,159	34,590	38,186	37,226
Other transit^f	322	628	916	989

^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 Car-miles. ^d Includes light and heavy rail only. ^e Fiscal year data. ^f Includes on-demand service and other unspecified forms of transit.

Notes: Air and other transit data for 2000 are revised. All 2007 data except for motorcycles, Intercity/Amtrak, and Class I freight are revised.

Sources: **Air Carrier**—Bureau of Transportation Statistics. **General Aviation**—National Transportation Safety Board. **Highway**—Federal Highway Administration. **Class I freight and Intercity/Amtrak Rail**—Association of American Railroads. **Transit and Commuter Rail**—American Public Transportation Association and Federal Transit Administration 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/publications/national_transportation_statistics/ as of October 2010.

3-2

Passenger-Miles: 1990–2008*(Millions)*

Mode	1990	2000	2007	2008
Air				
Air carrier	345,873	516,129	607,546	583,506
General aviation ^a	13,000	15,200	U	U
Highway				
Passenger cars	2,281,391	2,544,457	2,642,498	2,553,043
Other 2-axle, 4-tire vehicles ^b	999,754	1,467,664	1,928,319	1,921,960
Buses ^c	121,398	160,919	147,985	150,827
Motorcycles	12,424	11,516	17,298	18,395
Rail				
Transit ^d	12,046	15,183	18,068	18,931
Commuter	7,082	9,400	11,137	11,032
Intercity/Amtrak ^e	6,057	5,498	5,784	6,179
Other transit^f	841	1,518	2,125	2,390

^a All domestic operations of U.S. carriers other than those operating under 14 CFR 121 and 14 CFR 135. ^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 Includes light and heavy rail only. ^e Fiscal year data. ^f Includes on-demand service, ferryboat, and other unspecified means of transit.

Key: U = unavailable.

Notes: Highway and air data are revised for 2007. Rail (except Intercity/Amtrak) and other transit data are also revised for 2007. Transit data from 2000 and after are not comparable to the data for earlier years or to the data published in previous editions of the report due to differences in data sources.

Sources: **Air Carrier**—Bureau of Transportation Statistics, **General Aviation**—Eno Transportation Foundation. **Highway**—Federal Highway Administration. **Intercity/Amtrak Rail**—Association of American Railroads. **Transit and Commuter Rail**—American Public Transportation Association and Federal Transit Administration as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-37, available at http://www.bts.gov/publications/national_transportation_statistics/ as of April 2010.

3-3

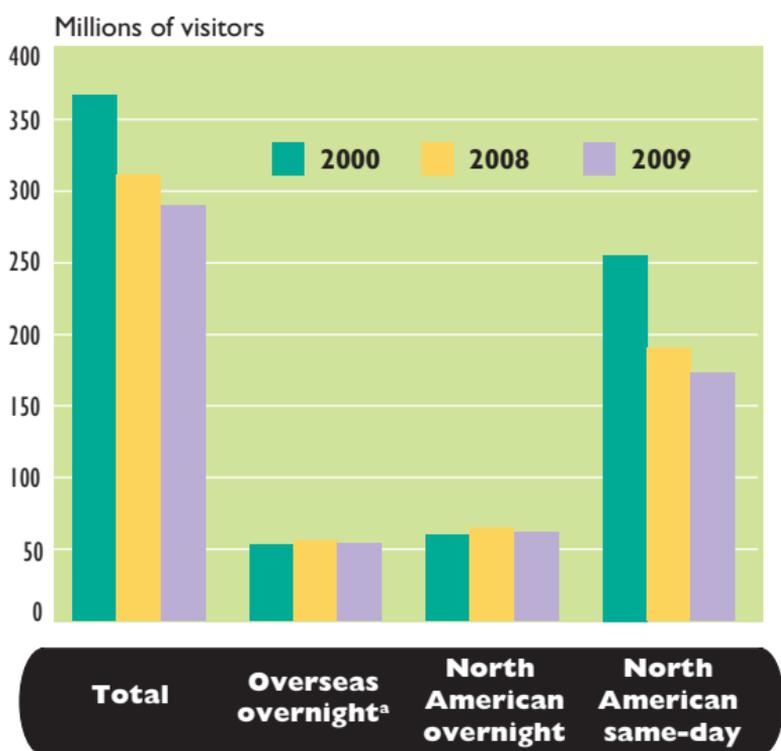
Passenger Travel and Freight Transportation Per Person: 2009

	Number
Trips	
Daily trips per person	3.8
Daily trips per person per year	1,378
Miles	
Daily miles per person	37.2
Daily miles per person per year	13,571
Domestic freight transportation (2007)	
Tons per capita, annually	41.6
Ton-miles per capita, annually	11,090

Notes: Tons per capita is calculated with BTS methodology based on data from the *2007 Economic Census: Transportation Commodity Flow Survey*. Data based on the *National Household Travel Survey* presented here use the source frame population estimate, which does not include persons under five years of age. The 2009 passenger travel data are preliminary.

Sources: **Passenger**—U.S. Department of Transportation (USDOT), Federal Highway Administration, 2009 *National Household Travel Survey*, available at <http://nhts.ornl.gov/> as of October 2010. **Freight**—U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics and U.S. Department of Commerce, U.S. Census Bureau, *2007 Economic Census: Transportation Commodity Flow Survey*, December 2009. **Population**—U.S. Department of Commerce, U.S. Census Bureau, *Population Division, Annual Population Estimates*, December 2009, available at <http://www.census.gov/popest/estbygeo.html> as of October 2010.

Travel Between the United States and Other Countries: 2000, 2008, and 2009



^a Overseas excludes Canada and Mexico.

Note: Year 2000 data are revised.

Sources: **Overseas overnight and North American overnight**—U.S. Department of Commerce, International Trade Administration, Office of Travel and Tourism Industries, *2009 United States Resident Travel Abroad*, available at <http://tinet.ita.doc.gov> as of October 2010. **North American same-day, Canada and North American same-day, Mexico**—North American Transportation Statistics Database, tables 9-1b and 9-1c, available at <http://nats.sct.gob.mx> as of November 2010.

U.S.-Mexican Border Land-Passenger Crossings: 2009

(Thousands)

Entering the U.S.

Total for all U.S.-Mexico crossings	
Personal vehicles	70,305
Personal vehicle passengers	141,017
Buses	228
Bus passengers	2,429
Train passengers and crew	4
Pedestrians	41,315
Personal vehicles—top 5 gateways	
San Ysidro, CA	13,355
El Paso, TX	10,529
Hidalgo, TX	6,178
Brownsville, TX	5,513
Laredo, TX	5,452
Personal vehicle passengers—top 5 gateways	
San Ysidro, CA	23,935
El Paso, TX	18,377
Laredo, TX	12,729
Hidalgo, TX	12,074
Brownsville, TX	11,157
Buses—top 5 gateways	
San Ysidro, CA	72
Laredo, TX	43
Otay Mesa, CA	35
Hidalgo, TX	28
El Paso, TX	19
Bus passengers—top 5 gateways	
Laredo, TX	846
San Ysidro, CA	453
El Paso, TX	312
Hidalgo, TX	301
Nogales, AZ	167
Train passengers and crew—top 4 gateways	
Nogales, AZ	2.3
Tecate, CA	0.9
Calexico East, CA	0.6
Otay Mesa/San Ysidro, CA	0.5
Pedestrians—top 5 gateways	
El Paso, TX	7,638
San Ysidro, CA	6,188
Laredo, TX	4,090
Nogales, AZ	4,038
Calexico, CA	3,905

^a Although there are eight U.S.-Mexico Ports of Entry for rail, four are in Texas where train crews are exchanged at the border, resulting in no new entry of persons into the United States. Therefore, no persons are recorded as entering the U.S. by train at Texas Ports of Entry. There is no regularly scheduled rail passenger service across the border.

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/programs/international/> as of September 2010 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-45, available at http://www.bts.gov/publications/national_transportation_statistics/ as of September 2010.

U.S.-Canadian Border Land-Passenger Crossings: 2009 (Thousands)

Entering the U.S.

Total for all U.S.-Canada crossings	
Personal vehicles	26,698
Personal vehicle passengers	53,509
Buses	116
Bus passengers	2,503
Train passengers and crew	218
Pedestrians	380
Personal vehicles—top 5 gateways	
Buffalo-Niagara Falls, NY	5,292
Detroit, MI	4,082
Blaine, WA	2,843
Port Huron, MI	1,570
Champlain-Rouses Point, NY	1,040
Personal vehicle passengers—top 5 gateways	
Buffalo-Niagara Falls, NY	11,818
Detroit, MI	7,271
Blaine, WA	5,966
Port Huron, MI	3,320
Champlain-Rouses Point, NY	2,198
Buses—top 5 gateways	
Detroit, MI	30
Buffalo-Niagara Falls, NY	29
Blaine, WA	15
Skagway, AK	11
Champlain-Rouses Point, NY	9
Bus passengers—top 5 gateways	
Buffalo-Niagara Falls, NY	883
Blaine, WA	323
Detroit, MI	298
Champlain-Rouses Point, NY	283
Skagway, AK	161
Train passengers and crew—top 5 gateways	
Skagway, AK	65
Blaine, WA	45
Champlain-Rouses Point, NY	36
Buffalo-Niagara Falls, NY	28
International Falls, MN	7
Pedestrians—top 5 gateways	
Buffalo-Niagara Falls, NY	245
Sumas, WA	27
Calais, ME	17
Detroit, MI	17
International Falls, MN	15

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/programs/international/> as of September 2010 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table I-44, available at http://www.bts.gov/publications/national_transportation_statistics/ as of September 2010.

Top 20 U.S. Passenger Airports: 1999 v. 2009

Rankings

(Thousands of enplaned passengers on large certificated air carriers)

Airports	1999		2009		% change 1999-2009
	Rank	Total enplaned passengers	Rank	Total enplaned passengers	
Atlanta, GA	1	37,232	1	41,876	12.5
Chicago (O'Hare), IL	2	31,658	2	28,994	-8.4
Dallas/Ft. Worth, TX	3	27,593	3	26,333	-4.6
Denver, CO	5	17,502	4	23,722	35.5
Los Angeles, CA	4	24,044	5	21,677	-9.8
Houston (G. Bush), TX	13	14,735	6	18,610	26.3
Phoenix, AZ	8	16,090	7	18,329	13.9
Las Vegas, NV	10	15,367	8	18,314	19.2
Charlotte, NC	21	9,442	9	17,078	80.9
New York (JFK), NY	20	10,138	10	16,192	59.7
San Francisco, CA	7	16,563	11	15,997	-3.4
Minneapolis/ St. Paul, MN	9	15,391	12	15,506	0.7
Newark, NJ	12	14,912	13	15,209	2.0
Orlando, FL	16	12,564	14	15,063	19.9
Detroit, MI	6	16,570	15	15,042	-9.2
Seattle, WA	14	13,064	16	14,720	12.7
Philadelphia, PA	19	10,347	17	14,714	42.2
Miami, FL	15	12,764	18	13,390	4.9
Boston, MA	17	11,091	19	11,378	2.6
New York (La Guardia), NY	18	10,805	20	10,751	-0.5
Top 20 airports		343,360		372,894	8.6
Top 20, percentage of total^a		56.1		56.2	0.1
All airports		611,582		663,173	8.4

^a The value in the last column is the percent change in total enplaned passengers from 1999 to 2009.

Notes: The 1999 top 20 airports total does not reflect the total of this table because some airports that appeared in the 1999 top 20 did not appear in the 2009 top 20. Charlotte, NC, was not in the top 20 in 1999. St. Louis (STL), MO, was in the top 20 in 1999 but not in 2009.

Source: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Schedule T-3 Data*, special tabulation, April 2010 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-41, available at http://www.bts.gov/publications/national_transportation_statistics/ as of August 2010.

3-8

Top 20 U.S. Gateways for Nonstop International Air Travel: 2008 and 2009

(Thousands of international passengers^a)

2009 rank	Gateway airport	2008	2009	% change 2008-2009
1	New York (JFK), NY	21,983	21,423	-2.5
2	Miami, FL	15,957	15,715	-1.5
3	Los Angeles, CA	16,225	14,727	-9.2
4	Newark, NJ	10,959	10,583	-3.4
5	Chicago (O'Hare), IL	11,125	10,204	-8.3
6	Atlanta, GA	9,255	8,765	-5.3
7	San Francisco, CA	8,331	7,905	-5.1
8	Houston (G. Bush), TX	7,687	7,606	-1.1
9	Washington (Dulles), DC	6,020	5,999	-0.3
10	Dallas-Ft. Worth, TX	4,949	4,662	-5.8
11	Philadelphia, PA	3,724	3,739	0.4
12	Boston, MA	3,573	3,493	-2.2
13	Honolulu, HI	3,414	3,276	-4.0
14	Fort Lauderdale, FL	3,073	2,933	-4.6
15	Orlando, FL	2,588	2,905	12.3
16	Detroit, MI	3,805	2,738	-28.0
17	Seattle-Tacoma, WA	2,802	2,528	-9.8
18	Charlotte, NC	2,303	2,344	1.8
19	Minneapolis-St. Paul, MN	2,563	2,214	-13.6
20	Las Vegas, NV	2,235	2,153	-3.7
Total, top 20 U.S. international airports		140,336	133,759	-4.7
Top 20, percentage of total^b		87.4	88.5	1.1
Total, all U.S. international airports		160,589	151,096	-5.9

^a International passengers are residents of any country traveling nonstop to and from the United States on U.S. and foreign carriers. ^b The value in the third column is the percent change in international passengers from 2008 to 2009.

Notes: Ranking is based on 2009 data. The data cover all passengers arriving and departing from U.S. airports on nonstop commercial international flights with 60 seats or more. 2008 data has been revised.

Source: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *T-100 International Segment Data*, special calculation, September 2010.

3-9

Top 20 World Airports by Passenger Movements^a: 2008 and 2009

(Thousands of passengers enplaned, deplaned, and in-transit at airport)

2009 rank	City airport	2008	2009	% change 2008-2009
1	Atlanta, GA (Hartsfield)	90,039	88,032	-2.2
	London, England			
2	(Heathrow)	67,056	66,038	-1.5
	Beijing, China			
3	(Beijing Capital)	55,937	65,372	16.9
4	Chicago, IL (O'Hare)	69,354	64,158	-7.5
5	Tokyo, Japan (Haneda)	66,755	61,904	-7.3
	Paris, France			
6	(Charles de Gaulle)	60,875	57,907	-4.9
	Los Angeles, CA			
7	(Los Angeles)	59,498	56,521	-5.0
	Dallas/Ft Worth, TX			
8	(Dallas/Ft. Worth)	57,093	56,030	-1.9
	Frankfurt, Germany			
9	(Frankfurt)	53,467	50,933	-4.7
10	Denver, CO (Denver)	51,245	50,168	-2.1
11	Madrid, Spain (Barajas)	50,824	48,251	-5.1
12	New York, NY (JFK)	47,808	45,915	-4.0
	Hong Kong, China			
13	(Hong Kong)	47,858	45,559	-4.8
	Amsterdam, Netherlands			
14	(Schiphol)	47,430	43,570	-8.1
	Dubai, United Arab			
15	Emirates (Dubai)	37,441	40,902	9.2
	Bangkok, Thailand			
16	(Suvannabhumi)	38,603	40,500	4.9
17	Las Vegas, NV (McCarran)	43,209	40,469	-6.3
18	Houston, TX (G. Bush)	41,709	40,007	-4.1
	Phoenix, AZ			
19	(Phoenix Sky Harbor)	39,891	37,825	-5.2
	San Francisco, CA			
20	(San Francisco)	37,235	37,339	0.3

^a Passenger movements include enplanements and deplanements, with in-transit passengers counted once. Both domestic and international passenger movements are included. General aviation passengers are excluded.

Notes: Airports include those participating in the ACI annual traffic statistics collection as of Aug. 5, 2010. Airports are ranked based on 2009 data. The value in the third column is the percent change in passengers enplaned, deplaned, and in-transit from 2008 to 2009

Source: Airports Council International, *Annual Traffic Data*, available at http://www.airports.org/cda/aci_common/display/main/aci_content07_c.jsp?zn=aci&cp=1-5-54-55_666_2__ as of August 2010.

3-10

Major U.S. Airports On-Time Arrival Performance: 2008 and 2009

(Percent on-time, rank in 2009)

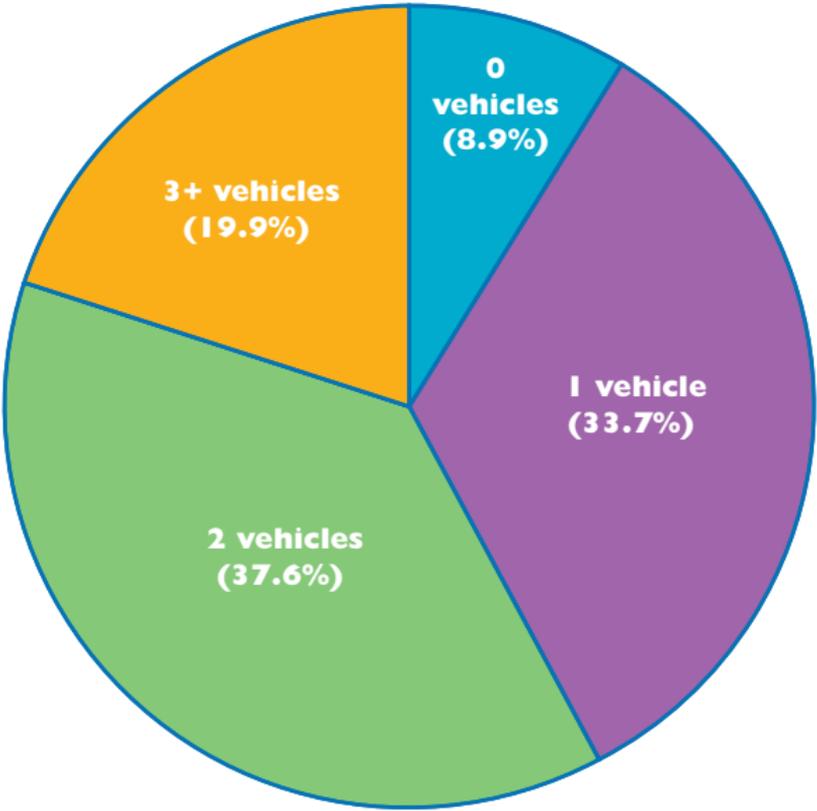
Airport	2008		2009	
	On-time rank	%	On-time rank	%
Salt Lake City, UT	1	83.6	1	85.1
Phoenix, AZ	2	80.9	2	83.9
Chicago (Midway), IL	3	80.7	3	83.5
Portland, OR (PDX)	16	77.7	4	83.0
Las Vegas, NV	15	77.8	5	82.9
Houston (G. Bush), TX	9	78.3	6	82.8
Los Angeles, CA	18	76.9	7	82.7
Baltimore, MD	4	80.3	8	82.5
Seattle, WA	20	75.6	9	82.2
Cincinnati, OH	6	79.1	10	82.2
St. Louis, MO (STL)	17	77.3	11	81.9
Detroit, MI	5	80.0	12	81.9
San Diego, CA	11	78.1	13	81.7
Tampa, FL	12	78.0	14	81.3
Orlando, FL	14	77.8	15	80.9
Washington (Dulles), DC	23	74.1	16	80.8
Denver, CO	8	78.3	17	80.8
Washington (Reagan National), DC	13	77.9	18	80.3
Charlotte, NC	10	78.3	19	80.1
Chicago (O'Hare), IL	29	67.7	20	79.4
Dallas/Ft. Worth, TX	19	76.2	21	79.0
Minneapolis/St. Paul, MN	7	78.9	22	78.9
Fort Lauderdale, FL	22	75.1	23	78.0
Boston, MA	24	73.4	24	76.5
Miami, FL	26	70.9	25	75.8
Philadelphia, PA	25	73.0	26	74.6
San Francisco, CA	27	69.1	27	73.5
New York (JFK), NY	28	68.6	28	73.5
Atlanta, GA	21	75.5	29	72.6
New York (LaGuardia), NY	30	62.8	30	68.7
Newark, NJ	31	62.3	31	65.8

Notes: On-time flights arrive within 15 minutes of scheduled arrival time. 2008 Portland and Salt Lake City data have been revised.

Source: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Airline On-Time Performance Data* (December Issues), table 4, available at http://www.bts.gov/programs/airline_information/airline_ontime_tables as of August 2010.

3-11

Households by Number of Motor Vehicles: 2009



Note: Data cover the household population and exclude the population living in institutions, college dormitories and other group quarters. Data do not sum to 100 due to rounding.

Source: U.S. Department of Commerce, U.S. Census Bureau, 2009 American Community Survey, table B25044, available at <http://www.census.gov/acs/www/index.html> as of October 2010.

Amtrak On-Time Performance Trends and Hours of Delay by Cause: 2007–2010

	2007	2008	2009	2010
On-time performance				
Total (weighted)	68.6%	71.2%	80.4%	79.7%
Short distance (<400 miles) ^a	72.2%	73.6%	81.1%	80.5%
Long distance (>400 miles)	39.5%	52.0%	75.5%	73.7%
Hours of delay by cause				
Total^b	101,655	94,566	79,304	79,976
Amtrak ^c	22,902	23,223	21,813	23,404
Host railroad ^d	72,565	64,724	46,842	44,090
Other ^e	6,187	6,618	10,648	12,482

^a Includes all Amtrak Northeast Corridor and Empire Service (New York State) trains. ^b Numbers may not add to totals due to rounding. ^c 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. ^d 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). ^e Includes delays not attributable to Amtrak or host railroads (e.g., customs and immigration, law enforcement action, weather, or waiting for scheduled departure time).

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.

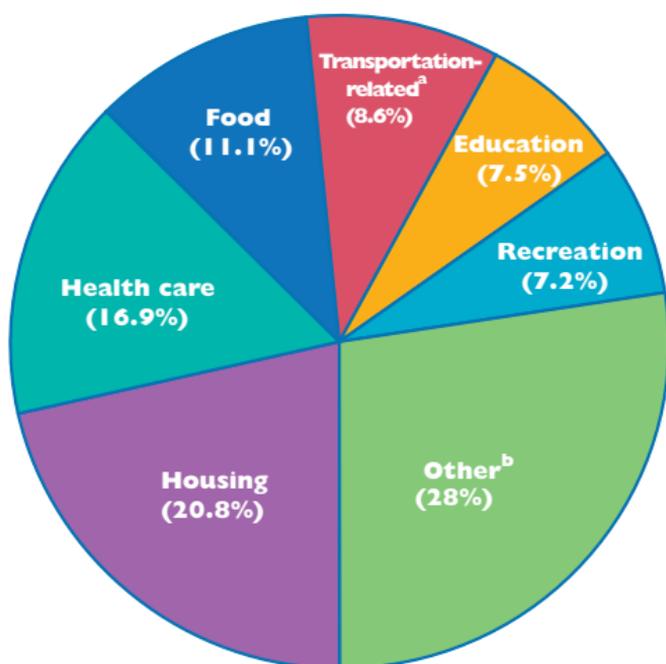
Amtrak trains are considered on time if the actual arrival time at the endpoint is within the minutes of scheduled arrival time as shown on the following chart. Trip length is based on the total distance traveled by that train from origin to destination:

Trip length (miles)	Minutes late at endpoint
0–250	0 or less
251–350	15 or less
351–450	20 or less
451–550	25 or less
> 551	30 or less

Source: Amtrak, personal communication, October 2010.

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 2009, transportation related goods and services contributed \$1.2 trillion to the \$14.1 trillion U.S. Gross Domestic Product.

4-1 U.S. Gross Domestic Product by Major Societal Function: 2009

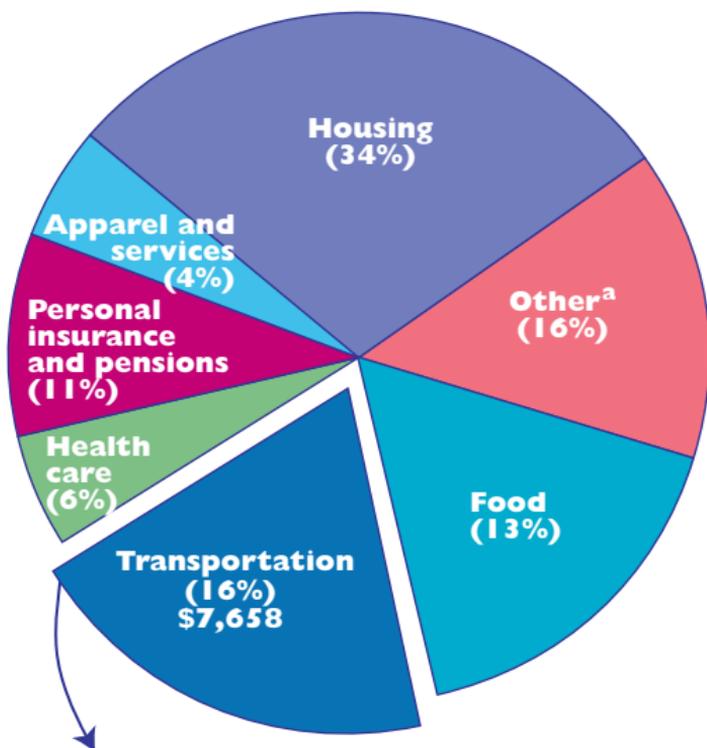


^a Includes purchases of transportation-related goods (e.g., vehicles and fuel) and services (e.g., auto insurance), private investment in transportation-related structures and equipment, net exports related to transportation, and changes in motor vehicle inventory. ^b Includes all other categories.

Source: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, calculated based on data from U.S. Department of Commerce, Bureau of Economic Analysis, *National Income and Product Account Tables*, available at <http://www.bea.gov/national/nipaweb/Index.asp> as of October 2010 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 3-5, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2011.

Average Household Expenditures by Major Spending Category: 2009

Current dollars



Private vehicle expenditures	=	\$7,179
Vehicle purchases	=	\$2,657
Gasoline and motor oil	=	\$1,986
Other vehicle expenditures	=	\$2,536
Public transportation expenditures	=	\$479
Airline fares	=	\$301
Mass transit fares	=	\$65
Ship fares	=	\$48
Taxi fares	=	\$30
Intercity train fares	=	\$15
Local transportation on out-of-town trips	=	\$11
Intercity bus fares	=	\$9
School bus	=	<\$1

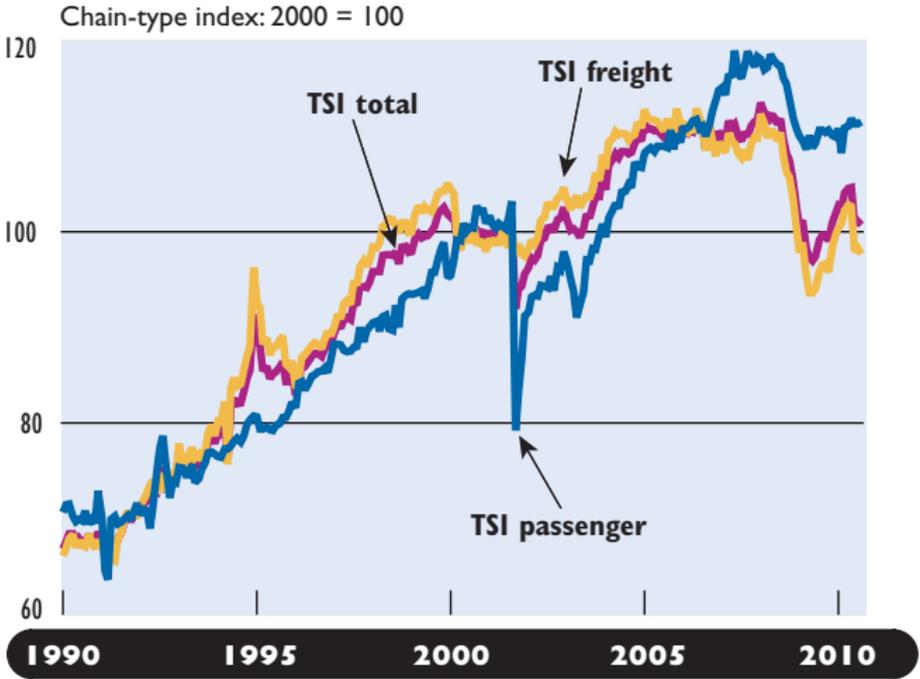
^a Includes alcoholic beverages, entertainment, personal care products and services, reading, education, tobacco products and smoking, miscellaneous, and others.

Source: U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Expenditure Survey, 2009*, personal communication, October 2010.

4-3

Transportation Services Index (TSI): January 1990–August 2010

Seasonally adjusted



Notes: June–August 2010 data are preliminary. The TSI total is a monthly measure of the volume of services provided by for-hire transportation industries in the United States using 2000 as the base year.

Source: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics (BTS), special calculation, available at <http://www.bts.gov/xml/tsi/src/index.xml> as of November 2010.

4-4

Employment in Transportation and Selected Transportation-Related Industries^a: 1990–2009 (Thousands)

	1990	2000	2008	2009
Total U.S. labor force (Nonfarm)	109,487	131,785	136,790	130,920
Total transportation related labor force^b	12,317	13,907	13,212	12,232
Transportation as a percent of U.S. total	11.2	10.6	9.7	9.3
For-hire transport & warehousing	3,476	4,410	4,508	4,235
Air	529	614	491	460
Water	57	56	67	64
Railroad	272	232	231	219
Transit/ground passenger transportation	274	372	423	419
Pipeline	60	46	42	42
Trucking	1,122	1,406	1,389	1,266
Support activities	364	537	592	549
Scenic/sightseeing transportation	16	28	28	28
Couriers/messengers	375	605	573	547
Warehousing/storage	407	514	672	642
Related services & construction	5,256	6,177	5,844	5,432
Automotive repair services/ parking; automotive equipment rental/leasing; gasoline stations	1,800	2,125	2,005	1,913
Highway, street, bridge construction	289	340	327	286
Dealers or wholesalers of motor vehicles, parts, petroleum, supplies, equipment	1,993	2,360	2,304	2,087
Travel arrangement/ reservation services	250	299	223	196
Ambulatory health care services	99	173	238	246
Postal service	825	880	747	703
Transportation-related manufacturing^c	2,683	2,447	1,965	1,672
Government^b	903	873	895	893

^a Annual averages. Data are NAICS-based. See Glossary for definition. ^b Fiscal year data.

Includes U.S. DOT and state and local personnel. State and local component of government employment includes highway, air, transit, and water modes. ^c Includes transportation equipment; petroleum products; tires; rubber; plastics; search, detection, navigation, guidance, aeronautical, and nautical systems; and instrument manufacturing.

Notes: U.S. Coast Guard employees are excluded from government for years 2003 and after. All 2008 data are revised. Due to independent rounding, individual components may not sum to total. This table does not include in-house employment.

Sources: **Total and transportation related labor force**—Bureau of Labor Statistics, **Government**—Bureau of the Census and U.S. Department of Transportation as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 3-19b, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2011.

4-5

U.S. Trade in Transportation-Related Commodities: 2009

(Millions of current U.S. dollars)

Commodity and code	Exports	Imports	Total trade ^a	Trade balance ^b
Motor vehicles and parts (87)	73,602	131,069	204,671	-57,467
Aircraft, spacecraft, and parts (88)	82,958	18,344	101,302	64,614
Ships, boats, and floating structures (89)	2,042	1,268	3,310	774
Railway or tramway locomotives and parts (86)	2,221	1,257	3,478	964
Total, transportation commodities	160,823	151,938	312,761	8,885
Total, all commodities	1,056,932	1,557,876	2,614,808	-500,944
Transportation commodities share of trade	15.2%	9.8%	12.0%	1.8%

Notes: The numbers in parentheses are the classification categories from the Harmonized Tariff Schedule. Classification category (87) also includes bicycles, wheelchairs, and baby carriages.

^a Total trade = exports plus imports. ^b Trade balance = exports minus imports.

Source: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics; special calculation 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 October 2010.

U.S. Domestic Freight Shipments by Mode: 2007*(Commodity Flow Survey data only)*

Mode	Value (\$billions)	Tons (millions)	Ton-miles (billions)
Total	11,685	12,543	3,345
Single modes	9,539	11,698	2,894
Truck ^a	8,336	8,779	1,342
Rail	436	1,861	1,344
Water	115	404	157
Air (including truck and air)	252	4	5
Pipeline ^b	400	651	S
Multiple modes	1,867	574	417
Parcel, USPS, or courier	1,562	34	28
Truck and rail	187	226	197
Truck and water	58	146	98
Rail and water	14	55	47
Other multiple modes	45	114	46
Other and unknown modes	279	272	34

^aTruck as a single mode includes any shipment that was made by private truck only, by for-hire truck only, or by a combination of private and for-hire truck. ^bEstimates for pipeline exclude shipments of crude petroleum.

Key: S = Estimate does not meet publication standards because of high sampling variability or poor response quality.

Notes: The data presented in this table exclude shipments from entities classified in forestry, fishing, utilities, construction, transportation, and most retail and services industries. Farms and government-owned entities (except government-owned liquor stores) were also excluded. Also excluded are most imports and commodities shipped from a foreign location to another foreign destination that pass through the United States. Other and unknown modes refers to shipments using modes not listed above or any shipment for which the mode of transportation could not be determined.

Source: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics and U.S. Department of Commerce, U.S. Census Bureau, *2007 Economic Census: Transportation Commodity Flow Survey*, December 2009.

Value of U.S.–International Merchandise Trade by Mode of Transportation: 2009

(Millions of current U.S. dollars)

	Exports	Modal %	Imports	Modal %	Total trade	Total modal %
Total	1,056,932	100.0	1,557,876	100.0	2,614,808	100.0
Water	367,520	34.8	795,279	51.0	1,162,799	44.5
Air	334,444	31.6	366,938	23.6	701,382	26.8
Truck	231,961	21.9	222,866	14.3	454,827	17.4
Rail	35,263	3.3	60,361	3.9	95,624	3.7
Pipeline	3,420	0.3	45,786	2.9	49,205	1.9
Other, unknown & miscellaneous	84,324	8.0	66,647	4.3	150,971	5.8

Notes: Individual categories may not sum to totals due to rounding. Excludes intransit data (merchandise shipped from one foreign country to another via a U.S. 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.

The data for other, unknown & miscellaneous are derived by subtracting the sum of water, air, truck, rail and pipeline from the total value of merchandise trade.

Sources: **Total, water and air**—U.S. Department of Commerce, U.S. Census Bureau, Foreign Trade Division, *FT920 U.S. Merchandise Trade: Selected Highlights*, December 2009, available at http://www.census.gov/foreign-trade/Press-Release/ft920_index.html as of November 2010. **Truck, rail, and pipeline**—U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Transborder Freight Data*, available at <http://www.bts.gov/programs/international/transborder/> as of November 2010.

Weight of U.S.–International Merchandise Trade by Mode of Transportation: 2009

(Thousands of short tons)

	Modal Exports		Modal Imports		Total trade	Total modal %
		%		%		
Total	637,048	100.0	1,062,068	100.0	1,699,116	100.0
Water ^a	498,049	78.2	826,420	77.8	1,324,469	78.0
Air	3,130	0.5	3,522	0.3	6,653	0.4
Truck ^b	79,804	12.5	75,436	7.1	155,240	9.1
Rail ^b	47,375	7.4	61,057	5.7	108,432	6.4
Pipeline ^b	3,419	0.5	95,181	9.0	98,600	5.8
Other, unknown, & miscellaneous ^b	5,270	0.8	451	<0.05	5,722	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 U.S. Census Bureau trade-based data to allow for a complete modal comparison among the different freight transportation modes. ^b The Bureau of Transportation Statistics (BTS) estimated the weight of exports for truck, rail, pipeline, mail and other and unknown modes based on the import weight-to-value ratios that vary by country, mode, and commodity. The import weight-to-value ratios at the six, four, and two-digit Harmonized Tariff Schedule code commodity detail are applied. Since the weight-to-value ratio of a given commodity drastically fluctuates from year to year, BTS removed the irregular components (outliers) of the import ratios to produce consistent and reliable export weight estimates.

Notes: Individual categories may not sum to totals due to rounding. Excludes intransit data (merchandise shipped from one foreign country to another via a U.S. 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: **Water and air**—U.S. Department of Commerce, U.S. Census Bureau, *Foreign Trade Division, FT920 U.S. Merchandise Trade: Selected Highlights* (December Issues), available at http://www.census.gov/foreign-trade/Press-Release/ft920_index.html as of August 2010. **Truck, rail, pipeline and other, unknown, and miscellaneous**—U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *TransBorder Freight Data*, available at <http://www.bts.gov/programs/international/transborder/> as of November 2010, and BTS special calculation, August 2010.

U.S. Merchandise Trade With Canada and Mexico by Mode Share: 2009

Mode	Value (percent)	Weight (percent)
NAFTA trade, total	100.0	100.0
Truck ^a	61.9	27.8
Rail ^a	13.0	19.4
Pipeline ^a	6.7	17.7
Air	5.3	0.1
Water	8.1	34.0
Other and unknown ^a	5.0	1.0
U.S.-NAFTA imports, total	100.0	100.0
Truck	55.5	20.4
Rail	15.0	16.5
Pipeline	11.4	25.7
Air	4.1	0.0
Water	10.8	37.3
Other and unknown	3.2	0.1
U.S.-NAFTA exports, total	100.0	100.0
Truck ^a	69.5	42.6
Rail ^a	10.6	25.3
Pipeline ^a	1.0	1.8
Air	6.9	0.1
Water	4.7	27.4
Other and unknown ^a	7.3	2.8

^a Because export weights for surface modes are not currently reported, BTS estimated the export weight for truck, rail, pipeline, and other and unknown based on value-to-weight ratios from the import data.

Note: U.S. North American Free Trade Agreement (NAFTA) refers to U.S. trade with Canada and Mexico.

Sources: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Transborder Freight Data*, special calculation available at <http://www.bts.gov/programs/international/transborder/> as of November 2010.

Top 20 U.S. - International Trade Freight Gateways by Value of Shipments: 2009

(Billions of current dollars)

Rank	Gateway	Exports	Imports	Total
1	Los Angeles, CA (w)	28.0	167.7	195.6
2	New York, NY, and NJ (w)	38.3	104.5	142.8
3	JFK International Airport, NY (a)	65.8	61.2	127.0
4	Houston, TX (w)	48.4	57.7	106.1
5	Laredo, TX (l)	45.3	49.8	95.1
6	Chicago, IL (a)	31.0	59.8	90.8
7	Detroit, MI (l)	47.7	37.2	85.0
8	Long Beach, CA (w)	24.2	44.4	68.5
9	Los Angeles Intl. Airport, CA (a)	30.9	32.2	63.1
10	Buffalo-Niagara Falls, NY (l)	33.2	27.8	61.0
11	Port Huron, MI (l)	28.4	30.1	58.5
12	Savannah, GA (w)	18.9	27.7	46.6
13	New Orleans, LA (a)	19.2	25.7	44.9
14	Norfolk, VA (w)	18.9	24.0	43.0
15	El Paso, TX (l)	17.9	24.4	42.3
16	San Francisco Int'l Airport, CA (a)	21.0	18.8	39.8
17	Miami Int'l Airport, FL (a)	27.5	11.7	39.1
18	Dallas/Ft. Worth Int'l Airport, TX (a)	14.9	20.9	35.8
19	Anchorage, AK (a)	8.4	26.2	34.7
20	Oakland, CA (w)	12.7	21.1	33.8

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

Notes: Air gateways include a low level (generally less than 3% of the total value) of freight shipped through small user-fee airports located in the same area as the gateways listed. 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.

Sources: **Air and Water**—calculations based on data from U.S. Department of Commerce, U.S. Census Bureau, Foreign Trade Division, *USA Trade Online*, available at <http://data.usatradeonline.gov/> as of November 2010. **Land**—U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *TransBorder Freight Data* as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table I-47, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2011.

4-11

Top 20 U.S. Water Ports by Shipment Weight & Top 20 U.S. Water Ports by Container TEUs: 2008

Port by shipment weight	Short tons (millions)	Port by container TEUs	Full TEUs (thousands)
South Louisiana, LA	224.0	Los Angeles, CA	5,521
Houston, TX	212.2	Long Beach, CA	4,843
New York, NY, and NJ	153.5	New York, NY and NJ	4,103
Long Beach, CA	80.2	Savannah, GA	2,086
Corpus Christi, TX	76.8	Norfolk Harbor, VA	1,645
New Orleans, LA	73.0	Oakland, CA	1,548
Beaumont, TX	69.5	Tacoma, WA	1,458
Huntington - Tristate	69.3	Houston, TX	1,371
Mobile, AL	67.6	Charleston, SC	1,307
Plaquemines, LA	63.7	Seattle, WA	1,224
Los Angeles, CA	59.8	Honolulu, HI	859
Lake Charles, LA	53.8	San Juan, PR	801
Texas City, TX	52.6	Port Everglades, FL	677
Baton Rouge, LA	51.8	Miami, FL	665
Duluth - Superior, MN, and WI	45.3	Jacksonville, FL	544
Norfolk Harbor, VA	44.6	Baltimore, MD	505
Baltimore, MD	43.4	Anchorage, AK	288
Pittsburgh, PA	41.8	New Orleans, LA	242
Tampa, FL	39.7	Portland, OR	204
Paulsboro, NJ	36.4	Philadelphia, PA	199
Total, top 20	1,559		30,091
Total, all ports	2,477		32,007

Notes: Includes exports, imports, and domestic shipments. See table 4-10 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*, Part 5, National Summaries, tables 1-1 and 5-2, available at <http://www.iwr.usace.army.mil/ndc/wcsc/wcsc.htm> as of July 2010 as cited in USDOT, RITA, BTS, *National Transportation Statistics*, table 1-51, available at http://www.bts.gov/publications/national_transportation_statistics/ as of October 2010. 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 August 2010.

4-12

Top 20 World Container Ports: 2007 and 2008*(Thousands of full and empty TEUs)*

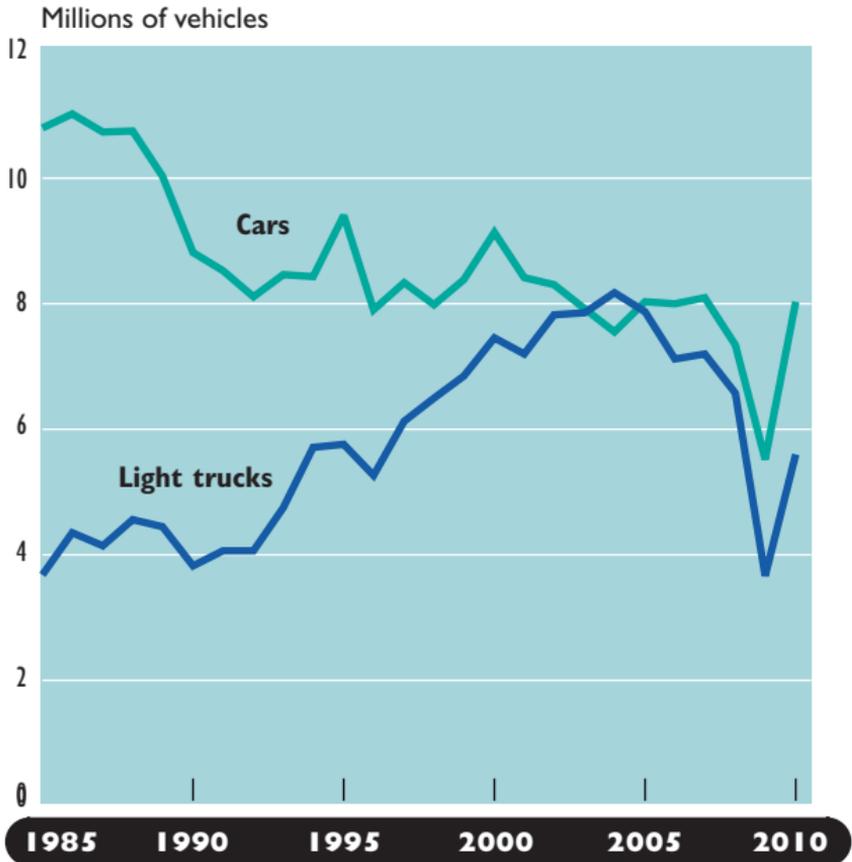
Rank (2007)	Rank (2008)	Port	Country	TEUs
1	1	Singapore	Singapore	29,918
2	2	Shanghai	China	28,006
3	3	Hong Kong	China	24,494
4	4	Shenzhen	China	21,416
6	5	Busan	South Korea	13,446
8	6	Dubai	United Arab Emirates	11,827
12	7	Ningbo	China	11,226
13	8	Guangzhou	China	11,001
7	9	Rotterdam	Netherlands	10,784
11	10	Qingdao	China	10,024
10	11	Hamburg	Germany	9,737
9	12	Kaohsiung	Taiwan	9,677
15	13	Antwerp	Belgium	8,663
18	14	Tianjin	China	8,503
17	15	Port Kelang	Malaysia	7,974
14	16	Los Angeles	United States	7,850
16	17	Long Beach	United States	6,350
21	18	Bremen/ Bremerhaven	Germany	5,488
19	19	Tanjung Pelepas	Malaysia	5,466
20	20	New York/ New Jersey	United States	5,265

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

Source: American Association of Port Authorities (AAPA), *Port Industry Statistics, World Port Rankings* (Container Traffic), available at <http://www.aapa-ports.org/> as of August 2010.

4-13

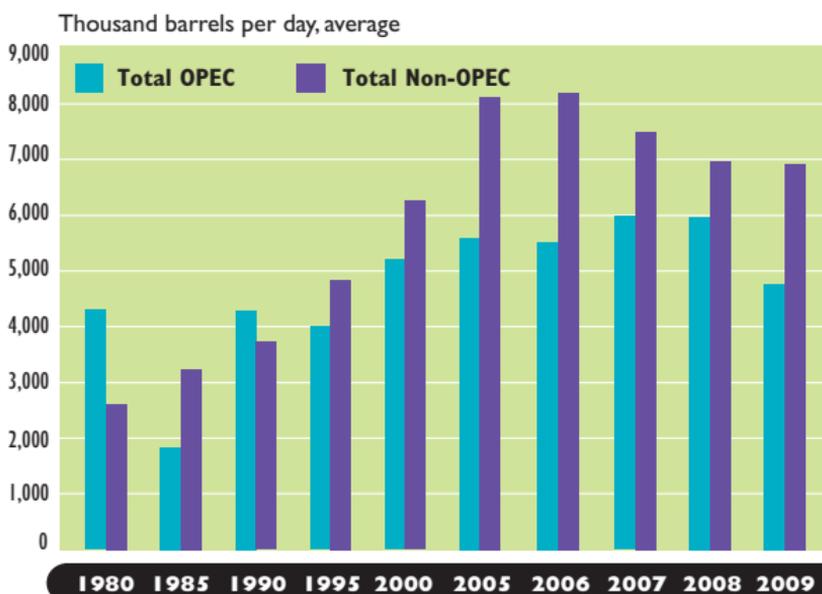
New Passenger Car and Light Truck Production: Model Years 1985–2010



Notes: Data are based on Environmental Protection Agency (EPA) definitions of light trucks (gross vehicle weight of 8,500 pounds or less). Model year 2010 data are projected production from the automotive companies. Cars and light trucks data for 2003, 2008, and 2009 are revised.

Source: U.S. Environmental Protection Agency, Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 Through 2010, appendix E, available at <http://www.epa.gov/oms/fetrends.htm> as of November 2010.

U.S. Oil Imports: 1980–2009



Notes: OPEC (Organization of Petroleum Exporting Countries) members are Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela. Angola joined OPEC in January 2007. Ecuador was a member of OPEC from 1973-1992, and rejoined OPEC in November 2007. Gabon was a member from 1975-1994. Indonesia withdrew from OPEC in May 2008.

Source: U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review* (Washington, DC: October 2010), tables 3.3c and 3.3d, available at <http://www.eia.doe.gov/emeu/mer/petro.html> as of October 2010.

4-15

Major 2009 Suppliers of U.S. Imported Crude Oil and Petroleum Products v. Production in Earlier Years

(Thousand barrels per day, average; rank in 2009)

	Rank	1990	2000	2008	2009
Canada	1	934	1,807	2,493	2,479
Mexico	2	755	1,373	1,302	1,210
Venezuela (OPEC)	3	1,025	1,546	1,189	1,063
Saudi Arabia (OPEC)	4	1,339	1,572	1,529	1,004
Nigeria (OPEC)	5	800	896	988	809
Russia	6	45	72	465	563
Algeria (OPEC)	7	280	225	548	493
Angola (OPEC)	8	NR	NR	513	460
Iraq (OPEC)	9	518	620	627	450
Brazil	10	49	51	258	309
U.S. Virgin Islands	11	282	291	320	277
Colombia	12	182	342	200	276
United Kingdom	13	189	366	236	245
Ecuador (OPEC)	14	49	NR	221	185
Kuwait (OPEC)	15	86	272	210	182
Netherlands	16	55	30	168	140
Norway	17	102	343	102	108
Libya (OPEC)	18	0	0	103	79
Total, major suppliers		6,690	9,806	11,473	10,333
Total, all U.S. imports		8,018	11,459	12,915	11,691

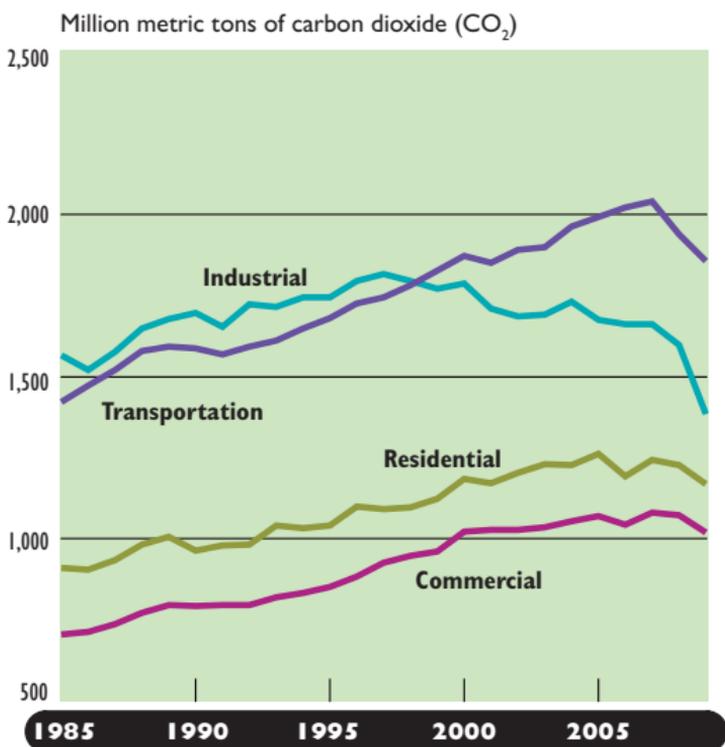
Key: NR= Not reported; OPEC = Organization of Petroleum Exporting Countries; R= revised.

Notes: 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. Angola joined OPEC in January 2007. Ecuador was a member of OPEC from 1973-1992, and rejoined OPEC in November 2007. Data for Angola for 1973-2006, and Ecuador for 1993-2007 are included in Total Non-OPEC in Energy Information Administration, *Monthly Energy Review*, table 3.3d. All 2000 data are revised. The data for Colombia, Netherlands, Norway and Libya, which were not included in last year's table, are included in this year's table, thus Total, major suppliers is revised accordingly.

Source: U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review* (Washington, DC: October 2010), tables 3.1, 3.3c-d, available at <http://www.eia.doe.gov/emeu/mer/petro.html> as of October 2010.

While transportation enhances the quality of our lives, it also generates environmental impacts that can lead to human health problems and environmental damage. Overall, most transportation air emissions in the United States, such as particulates, have declined since 1980 despite significant increases in U.S. population, Gross Domestic Product, and vehicle-miles traveled. However, carbon dioxide emissions from transportation fuel use rose steadily until 2007 before decreasing in 2008.

5-1 U.S. Greenhouse Gas Emissions From Energy Use: 1985–2009



Notes: Electric utility emissions are distributed across sectors.
Data for all years except 2009 are revised.

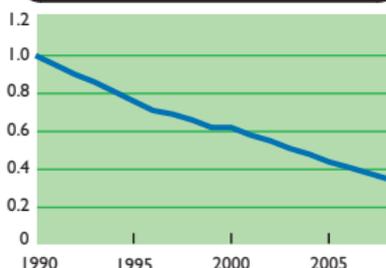
Sources: U.S. Department of Energy (USDOE), Energy Information Administration (EIA), Monthly Energy Review, *Carbon Dioxide Emissions From Energy Consumption*, tables 12.2 to 12.5, available at <http://www.eia.doe.gov/emeu/mer/environ.html> as of November 2010.

5-2

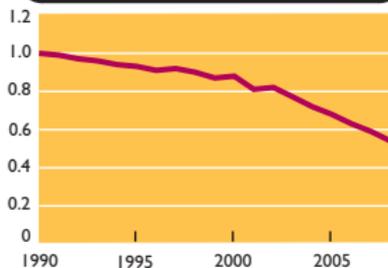
Index of Key Air Pollutant Emissions From U.S. Transportation: 1990–2008

Index: 1990 = 1.0

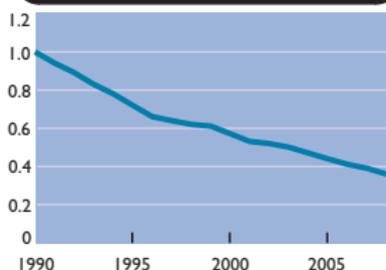
Carbon monoxide



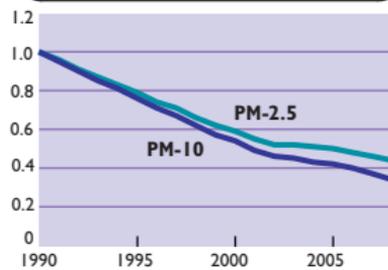
Nitrogen oxides



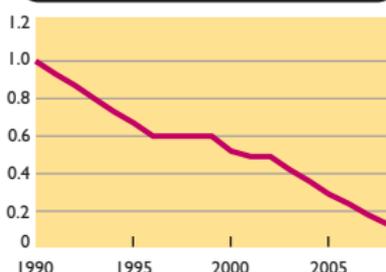
Volatile organic compounds



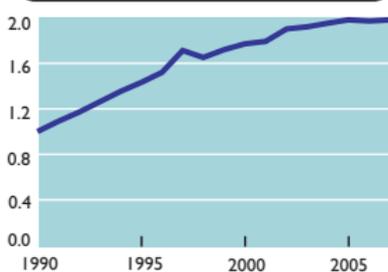
PM-10; PM-2.5



Sulfur dioxide



Ammonia

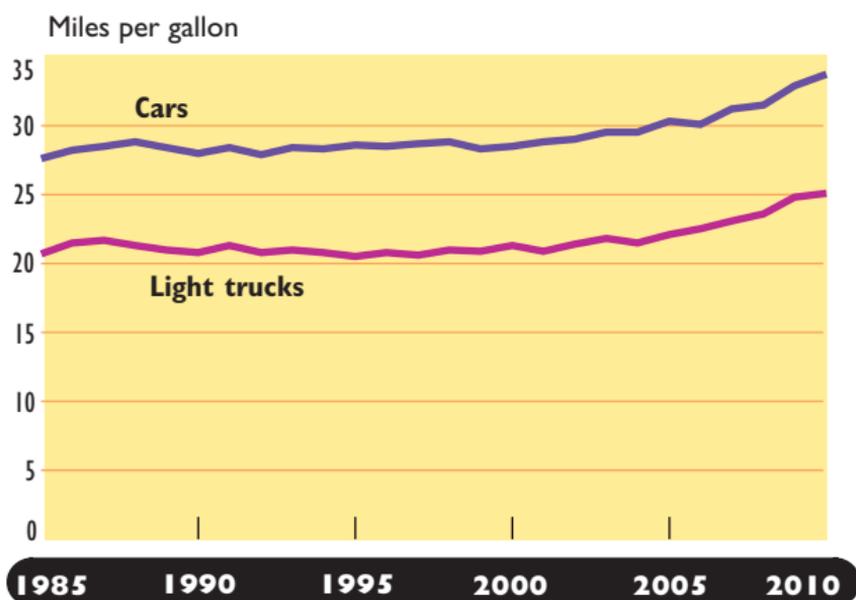


Key: PM-10 = airborne particulates of less than 10 microns, PM-2.5 = airborne particulates of less than 2.5 microns.

Notes: The indexes are calculated using data on emissions from highway vehicles only. Particulate matters include PM without condensibles. 2003 data are revised except carbon monoxide, nitrogen oxide, sulfur dioxide, and ammonia. 2004 data are revised except nitrogen oxide, sulfur dioxide, and ammonia. 2005 data are revised except carbon monoxide, sulfur dioxide, and ammonia. 2006 data are revised except carbon monoxide, volatile organic compounds, and ammonia. 2007 data revised except carbon monoxide, sulfur dioxide, and ammonia.

Source: U.S. Environmental Protection Agency, Clearinghouse for Inventories and Emissions Factors (CHIEF), *Current Emission Trends Summaries*, available at <http://www.epa.gov/ttn/chief/trends/index.html> as of November 2010.

5-3

New Passenger Car and Light Truck Fuel Economy Averages: Model Years 1985–2010

Notes: Fuel economy is miles divided by gallons. All data are revised.

Source: National Highway Traffic Safety Administration, *Summary of Fuel Economy Performance* (Washington, DC: Annual Issues), available at <http://www.nhtsa.gov/>, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 4-23, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2011.

5-4

**Hybrid Vehicle Sales^a in the United States:
1999–2009***(Units)*

Year	Domestic^b	Import	Total
1999	0	17	17
2000	0	9,350	9,350
2001	0	20,282	20,282
2002	0	22,335	22,335
2003	0	47,566	47,566
2004	2,993	81,206	84,199
2005	15,960	189,868	205,828
2006	24,198	229,320	253,518
2007	77,629	275,233	352,862
2008	86,082	229,606	315,688
2009	81,882	208,350	290,232

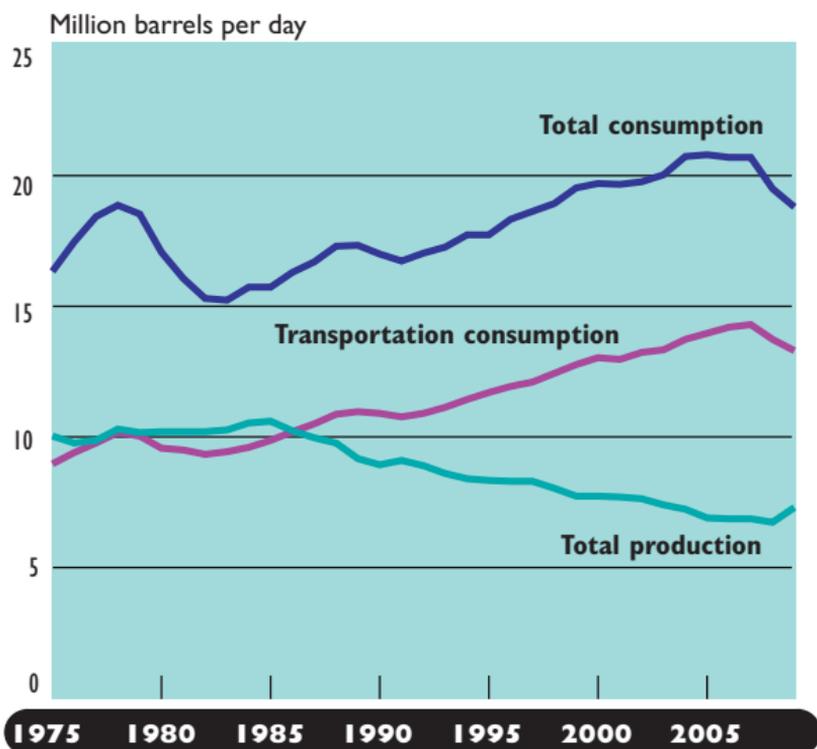
^a Sales include leased vehicles and fleet sales. ^b Includes vehicles produced in Canada and Mexico.

Notes: The first domestic hybrid vehicle was not introduced in the U.S. market until 2004. A hybrid vehicle is a vehicle powered by a combination of battery-electric motor(s) and an internal combustion engine.

Source: Ward's Automotive Group, WardsAuto.com, personal communication, April 2010.

5-5

U.S. Petroleum Production and Consumption: 1975–2009

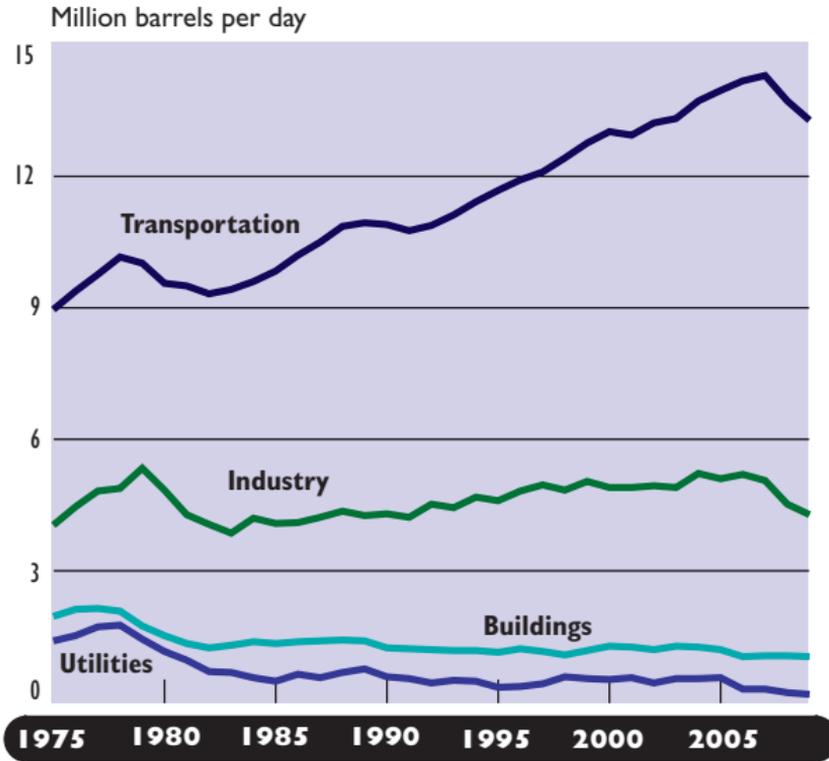


Notes: 2009 data are preliminary. Data for all other years are revised.

Source: U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review* (Washington, DC: September 2010), tables 3.1, and 3.7c, available at <http://www.eia.doe.gov/aer/petro.html> as of August 2010 as cited in USDOT, RITA, BTS, *National Transportation Statistics*, table 4-1, available at http://www.bts.gov/publications/national_transportation_statistics/ as of October 2010.

5-6

Transportation's Share of U.S. Petroleum Use: 1975–2009



Notes: 2009 data are preliminary. Data for all other years are revised.

Source: U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review* (Washington, DC: October 2010), tables 3.7a–c, available at <http://www.eia.doe.gov/mer/petro.html> as of October 2010.

Glossary

Air carrier: Certificated provider of scheduled and nonscheduled services.

Chained dollars: A method to measure real changes in dollar values between years; 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: Railroads earning adjusted annual operating revenues for three consecutive years of \$250,000,000 or more based on 1991 dollars with an adjustment factor applied to subsequent years.

Commercial waterway facilities: Waterway facilities, as defined 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 \$15.47 per hour of person travel and \$102.12 per hour of truck travel in 2007) 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.–9:00 a.m. and 4:00 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 is distinct from airline usage of the term to describe “hub-and-spoke” route structures or other definitions of hubs used by the Federal Aviation Administration, which relate to 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: majors—more than \$1 billion; nationals—between \$100 million and \$1 billion; large regionals—between \$20 million and \$99,999,999; and medium regionals—less than \$20 million.

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.

Long-distance travel: As defined in the 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.

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 U.S. 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.

Pedalcyclist: A person on a vehicle powered solely by pedals.

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.

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, 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.

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

Standard Industrial Classification (SIC): SIC (first used in 1937) groups entities 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.

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.

Photo Credits

Front cover

City bus - Marsha Fenn
Airplane - Pavel Jedlicka
Cargo ship - Elliott Linder
Passenger rail - BTS Staff

Back cover

Truck - BTS Staff
Train - BTS Staff
Pipeline - Kevin Abbott
Freeway - James Lin



http://www.bts.gov/publications/pocket_guide_to_transportation/2011/



Printed on paper containing recycled post consumer waste paper.