

# Pocket Guide to Transportation



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**A**merica's transportation system has changed along with the nation's society and economy. The following table puts those changes in perspective:

<b>Characteristic</b>	<b>1970</b>	<b>2000</b>
Resident population (thous.)	203,984	281,422
Total area (thous. sq. mi.) <sup>a</sup>	3,619	3,718 (1990)
Total civilian labor force (thous.)	82,771	140,863
Real gross domestic product <sup>b</sup>	\$3.4 trillion	\$9.2 trillion
Median household income <sup>b</sup>	\$29,600	\$39,200
Average household expenditures <sup>b</sup>	N	\$35,384
Number of households (thous.)	63,401	104,705
Average life expectancy (years)	71	76.7 (1998)
Labor force participation by women	46%	60%

<sup>a</sup> 1990 data include the Great Lakes and inland and coastal water. Estimate for 2000 not yet available. 1970 data include inland water only. The Census Bureau tabulates area data for the decennial census years only.

<sup>b</sup> Expressed in 1996 chained dollars (see Glossary for definition).

**Key:** N = data do not exist. **Note:** All dollar amounts are 1996 chained dollars.

Sources: Population, area, number of households—U.S. Department of Commerce (USDOC), Census Bureau, *Statistical Abstract of United States: 2000*, available at [www.census.gov](http://www.census.gov); GDP—USDOC, BEA; median household income—USDOC, Census Bureau, available at [www.census.gov/hhes/www/income00.html](http://www.census.gov/hhes/www/income00.html); expenditures, employment—U.S. Department of Labor, BLS; life expectancy—Centers for Disease Control and Prevention, available at [www.cdc.gov/nchs/fastats.htm](http://www.cdc.gov/nchs/fastats.htm).

The Bureau of Transportation Statistics compiled the data in this guide from multiple sources. The guide is divided into five sections and a glossary:

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## I Transportation System Extent and Use

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

Table I  
The Transportation Network: 2000

Mode	Components
Highway	<b>Public roads</b>
	46,677 miles of Interstate highway
	114,511 miles of other National Highway System roads
	3,789,927 miles of other roads
Air	<b>Public-use airports</b>
	5,317 airports
	<b>Airports serving large certificated carriers</b>
	29 large hubs (72 airports), 479 million enplaned passengers (see Glossary for definition of "hub")
	31 medium hubs (53 airports), 102 million enplaned passengers
	54 small hubs (69 airports), 40 million enplaned passengers
585 nonhubs (610 airports), 18 million enplaned passengers	
Rail	<b>Miles of railroad operated</b>
	120,022 miles by Class I freight railroads in the United States <sup>a</sup>
	20,978 miles by regional freight railroads
	28,937 miles by local freight railroads
	22,741 miles by Amtrak (passenger)

**Urban transit** *Directional route-miles serviced<sup>b</sup>*

Bus:	160,506
Trolley bus:	469
Commuter rail:	5,209
Heavy rail:	1,558
Light rail:	834

**Stations**

Commuter rail:	983
Heavy rail:	1,009
Light rail:	603

**Water**

26,000 miles of navigable waterways  
 Ferry routes: 487

**Commercial waterway facilities<sup>c</sup>**

Great Lakes:	611 deep-draft 143 shallow-draft
Inland:	2,367 shallow-draft
Ocean:	4,079 deep-draft 2,109 shallow-draft
Locks:	276

**Pipeline****Oil**

(1999)

Crude lines: 86,000 miles of pipe  
 Product lines: 91,000 miles of pipe

**Gas**

Transmission: 254,000 miles of pipe  
 Distribution: 981,000 miles of pipe

<sup>a</sup> There are also 575 miles of railroad operated by U.S. Class I freight railroads in Canada and Mexico.

<sup>b</sup> Directly operated service. Does not include contracted service.

<sup>c</sup> See Glossary for definition of commercial waterway facilities.

Sources: Various sources, as cited in U.S. Department of Transportation (USDOT), Bureau of Transportation Statistics, *National Transportation Statistics 2001*, available Spring 2002 at [www.bts.gov](http://www.bts.gov), or email to [answers@bts.gov](mailto:answers@bts.gov); Association of American Railroads, *Railroad Facts, 2001* (Washington, DC: 2001); USDOT, Federal Highway Administration, *Highway Statistics 2000* (Washington, DC: 2001); National Ferry database, as of October 2001; and U.S. Army Corps of Engineers, Navigation Data Center, *The U.S. Waterway System, Transportation Facts*, available at [www.wrsc.usace.army.mil/ndc/fcgeodis.htm](http://www.wrsc.usace.army.mil/ndc/fcgeodis.htm), as of November 2001.

The safety of the traveling public is of paramount concern for the U.S. Department of Transportation. Although progress has been made in reducing fatalities, transportation remains the leading cause of accidental deaths and injuries in the United States. Roughly 95 percent of transportation fatalities and an even higher percentage of injuries occurred on the nation's roadways.

Table 2  
Fatalities by Transportation Mode

Mode	1970	1980	1990	1995	2000
Large air carrier <sup>a</sup>	146	1	39	168	92
Commuter air carrier <sup>a</sup>	N	37	7	9	5
On-demand air taxi <sup>a</sup>	N	105	51	52	71
General aviation <sup>a</sup>	1,310	1,239	767	734	592
Highway <sup>b</sup>	52,627	51,091	44,599	41,817	41,821
Railroad <sup>c</sup>	785	584	599	567	512
Transit <sup>d</sup>	N	N	339	274	295
Commercial ship					
Vessel	178	206	85	<sup>R</sup> 51	32
Nonvessel <sup>e</sup>	420	281	101	<sup>R</sup> 95	87
Recreational boating	1,418	1,360	865	829	701
Gas and hazardous liquid pipeline	30	19	9	21	38

<sup>a</sup> Includes people on planes and on the ground.

<sup>b</sup> Includes occupants, nonoccupants, and motor vehicle fatalities at railroad crossings.

<sup>c</sup> 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.

<sup>d</sup> Fatalities resulting from all reportable incidents, not just accidents. Includes commuter rail, heavy rail, light rail, motor bus, demand-responsive, van pool, and automated guideway.

<sup>e</sup> Fatalities unrelated to vessel accidents, e.g., individual falling overboard and drowning.

Key: N = data do not exist or are not cited because of reporting changes; R = revised.

Source: Various sources, as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 2001*, available Spring 2002 at [www.bts.gov](http://www.bts.gov), or email to [answers@bts.gov](mailto:answers@bts.gov).

Table 3  
**Distribution of Transportation Fatalities: 2000**

<b>Category</b>	<b>Number</b>	<b>Percent</b>
Passenger car occupants	20,492	46.4
Light-truck occupants	11,418	25.8
Pedestrians struck by motor vehicles	4,739	10.7
Motorcyclists	2,862	6.5
Large-truck occupants	741	1.7
Other and unknown motor vehicle occupants	714	1.6
Recreational boating	701	1.6
Pedalcyclists struck by motor vehicles	690	1.6
General aviation	592	1.3
RR trespassers (excluding grade crossings)	461	1.0
MV nonoccupants, not otherwise specified <sup>a</sup>	143	0.3
RR-related, not otherwise specified <sup>b</sup>	139	0.3
Air carriers	92	0.2
Waterborne transportation (nonvessel)	87	0.2
Heavy-rail transit (e.g., subway)	80	0.2
Air taxi	71	0.2
Waterborne transportation (vessel-related)	32	0.07
Light-rail transit	30	0.07
RR employees/contractors on duty	27	0.06
Bus occupants (school, intercity, and transit)	22	0.05
Gas distribution pipelines	22	0.05
Gas transmission pipelines	15	0.03
Transit buses (not related to accidents) <sup>c</sup>	8	0.02
Commuter air	5	0.01
Passengers on railroad trains	4	<0.01
Hazardous liquid pipelines	1	<0.01
<b>Total<sup>d</sup></b>	<b>44,188</b>	<b>100.0</b>
Redundant with above <sup>e</sup>		
Large-truck occupants and nonoccupants	5,211	
Public grade crossings, with motor vehicles	306	
Grade crossings (not involving motor vehicles)	64	
Private grade crossings, with motor vehicles	55	
Commuter rail (included in railroad)	87	
Transit buses (accident-related)	82	
Outside planes in crashes	13	
Demand-responsive transit (accident-related)	8	

<sup>a</sup> Includes all nonoccupant fatalities except pedalcyclists and pedestrians.

<sup>b</sup> Includes fatalities outside trains. <sup>c</sup> Includes homicides and suicides.

<sup>d</sup> Unless otherwise specified, includes fatalities outside the vehicle.

<sup>e</sup> For transit bus and demand-responsive transit, occupant fatalities are counted under "bus" and nonoccupant fatalities are counted under "pedestrians," "pedalcyclists," or other motor vehicle categories.

Key: MV = motor vehicle; RR = railroad.

Source: Various sources, as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 2001*, available Spring 2002 at [www.bts.gov](http://www.bts.gov), or email to [answers@bts.gov](mailto:answers@bts.gov).

Table 4  
**Fatalities in Motor Vehicle Crashes by Number of Vehicles and Alcohol Involvement: 2000**

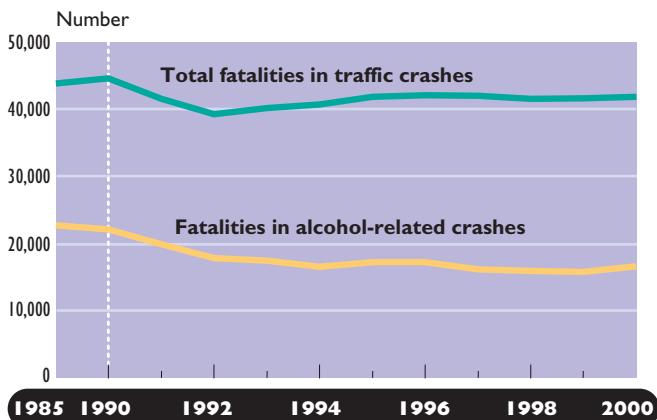
	<b>Fatalities</b>	<b>Alcohol involvement</b>	<b>Percent</b>
<b>Occupants</b>	<b>36,249</b>	<b>14,108</b>	<b>38.9</b>
Single-vehicle crashes	17,430	8,665	49.7
Two-vehicle crashes	15,714	4,539	28.9
More than two-vehicle crashes	3,105	905	29.1
<b>Pedestrians</b>	<b>4,739</b>	<b>2,241</b>	<b>47.3</b>
Single-vehicle crashes	4,313	2,016	46.7
Multiple-vehicle crashes	426	226	53.4
<b>Pedalcyclists</b>	<b>690</b>	<b>257</b>	<b>37.2</b>
Single-vehicle crashes	664	247	37.1
Multiple-vehicle crashes	26	10	40.0
<b>Others/unknown</b>	<b>143</b>	<b>46</b>	<b>32.2</b>
<b>Total</b>	<b>41,821</b>	<b>16,653</b>	<b>39.8</b>

Note: A fatal crash is considered alcohol-related if either a driver or a nonmotorist had a measurable or estimated blood alcohol concentration of 0.01 grams per deciliter or above.

Source: U.S. Department of Transportation, National Highway Traffic Safety Administration, personal communications, February 2002.



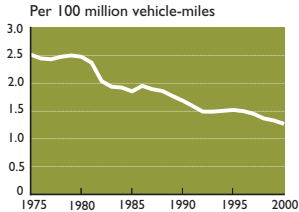
Figure 1  
**Fatalities in Alcohol-Related Crashes**



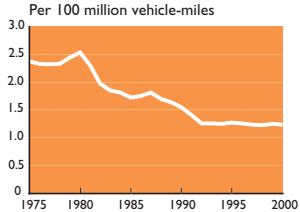
Source: U.S. Department of Transportation, National Highway Traffic Safety Administration, National Center for Statistics and Analysis, Fatality Analysis Reporting System (FARS) database, available at [www-fars.nhtsa.dot.gov/www/query.html](http://www-fars.nhtsa.dot.gov/www/query.html), as of September 2001.

Figure 2  
**Fatality Rates for Selected Modes**

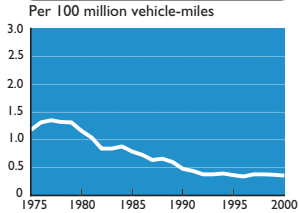
**Passenger car occupants**



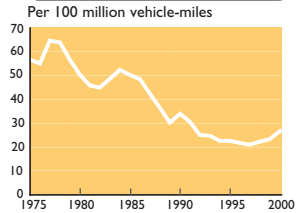
**Light-truck occupants**



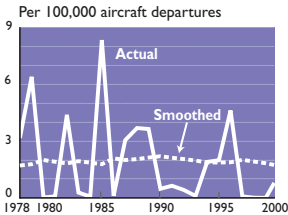
**Large-truck occupants**



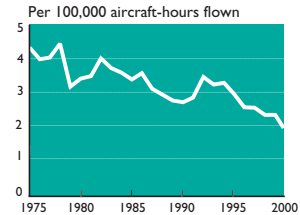
**Motorcycle riders**



**Air carriers (actual and smoothed fatality rates)<sup>a</sup>**



**General aviation**



<sup>a</sup> For air carriers, the data were dampened, or smoothed, to reduce the month-to-month fluctuations. This dampening was performed using an exponential smoothing model, with a weight of 0.95. Departure data, and hence the denominator of the rates, are not strictly comparable between pre- and post-1977 eras.

Source: Various sources, as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 2001*, available Spring 2002 at [www.bts.gov](http://www.bts.gov), or email to [answers@bts.gov](mailto:answers@bts.gov).

**Table 5**  
**Injured Persons by Transportation Mode**

<b>Mode</b>	<b>1970</b>	<b>1980</b>	<b>1990</b>	<b>1995</b>	<b>2000</b>
Air carrier	107	19	29	25	<sup>P</sup> 26
Commuter air carrier	N	14	11	25	<sup>P</sup> 7
On-demand air taxi	N	43	36	14	<sup>P</sup> 10
General aviation	715	681	402	395	<sup>P</sup> 329
Highway <sup>a</sup>	N	N	3,231,000	3,465,000	3,189,000
Railroad <sup>b</sup>	17,934	58,696	22,736	12,546	10,424
Transit <sup>c</sup>	N	N	54,556	57,196	U
Commercial ship					
Vessel accidents	105	180	175	145	125
Nonvessel accidents <sup>d</sup>	U	U	U	<sup>R</sup> 1,833	564
Recreational boating	780	2,650	3,822	4,141	4,355
Gas and hazardous liquid pipeline	254	192	76	64	81

<sup>a</sup> Includes passenger car occupants, motorcyclists, light-duty and large trucks, bus occupants, pedestrians, pedalcyclists, occupants of unknown vehicle types, and other nonmotorists.

<sup>b</sup> Injuries resulting from train accidents, train and nontrain incidents, and occupational illness. Includes Amtrak.

<sup>c</sup> Injuries resulting from all reportable incidents, not just from accidents. Includes commuter rail, heavy rail, light rail, motor bus, demand-responsive, van pool, and automated guideway.

<sup>d</sup> Injuries unrelated to vessel accidents, e.g., an individual getting a cut while onboard a vessel.

Key: N = data do not exist; P = preliminary; R = revised; U = unavailable.

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

Source: Various sources, as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 2001*, available Spring 2002 at [www.bts.gov](http://www.bts.gov), or email to [answers@bts.gov](mailto:answers@bts.gov).

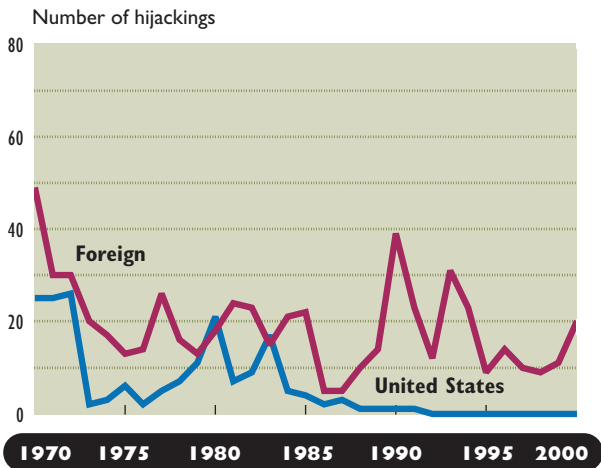
Table 6  
**Airline<sup>a</sup> Passenger Screening Results**

	1980	1985	1990	1995	2000
<b>Persons screened</b> (millions)	585	993	1,145	1,263	1,812
<b>Firearms detected</b>	1,914	2,913	2,843	2,390	1,937
<b>Persons arrested</b>					
Carrying firearms/ explosives	1,031	1,310	1,336	1,194	600
Giving false information	32	42	18	68	61
<b>Bomb threats received</b>					
Against airports	1,179	477	448	346	U
Against aircraft	268	153	338	327	U

<sup>a</sup> Includes operators with a U.S. Department of Transportation, Federal Aviation Administration operating certificate engaged in scheduled passenger or public charter passenger operations and airports at which these operations are conducted.  
 Key: U = unavailable.

Sources: Persons screened, firearms detected, and persons arrested—1980–1985: U.S. Department of Transportation (USDOT), Federal Aviation Administration (FAA), *Semiannual Report to Congress on the Effectiveness of the Civil Aviation Security Program, July 1–December 31, 1985* (Washington, DC: May 1986). 1990–2000: USDOT, FAA, Office of Civil Aviation Security Policy and Planning, *Annual Report to Congress on Civil Aviation Security* (Washington, DC: Annual issues), and personal communications, May 27, 1999, Mar. 29, 2000, and Aug. 7, 2001. Bomb threats received—USDOT, FAA, *Criminal Acts Against Civil Aviation* (Washington, DC: Annual issues).

Figure 3  
**Worldwide Civil Aviation Hijackings**



Note: There were no hijackings in the United States from 1991 through 2000. Data are through 2000 and do not include the hijacking of 4 airplanes used in attacks on the United States by terrorists on Sept. 11, 2001.

Source: U.S. Department of Transportation, Federal Aviation Administration, Office of Civil Aviation Security, *Criminal Acts Against Civil Aviation*, available at <http://cas.faa.gov/crimacts/pf/crim2000.pdf>, as of Feb. 8, 2002.

The U.S. transportation network makes possible a high degree of personal mobility and freight activity. In 1999, the transportation network supported 4.8 trillion passenger-miles and about 3.9 trillion ton-miles. The data in this section show growth in local and long-distance travel and freight shipments over time. Factors influencing this growth include, among others: greater vehicle availability, reduced travel costs, population increases, the economy, and consumer income.

Table 7  
**Per Capita Passenger Travel and Freight Transportation**

	<b>Number</b>
<b>Passenger travel (1995)</b>	
<b>Trips</b>	
Local trips per person, <sup>a</sup> annually	1,568
Local trips per person, <sup>a</sup> daily	4.3
Long-distance trips per person, annually	3.9
<b>Miles</b>	
Local miles per person, <sup>a</sup> annually	14,115
Local miles per person, <sup>a</sup> daily	39
Long-distance miles per person, domestic only	3,129
<b>Freight transportation (1997)</b>	
Tons per person, annually	55
Ton-miles per person, annually	14,383

<sup>a</sup> Persons aged 5 and over.

Notes: Data used for local travel are from the Nationwide Personal Transportation Survey travel-day file and include trips of all lengths made by respondents on a single day; about 95 percent of these daily trips were 30 miles or less. Per capita calculations are based on population estimates within each survey, not from the Census Bureau estimate reported in the table.

Sources: U.S. Department of Transportation (USDOT), Federal Highway Administration, *Nationwide Personal Transportation Survey, Our Nation's Travel* (Washington, DC: 1997); USDOT, Bureau of Transportation Statistics (BTS), American Travel Survey data, October 1997, person trip and demographic files; USDOT, BTS and U.S. Department of Commerce, Census Bureau, *1997 Commodity Flow Survey* (Washington, DC: 1999); plus additional estimates prepared for BTS by Oak Ridge National Laboratory.

**Table 8**  
**Number of Aircraft, Railcars, Vehicles, and Vessels**

<b>Mode</b>	<b>1970</b>	<b>1980</b>	<b>1990</b>	<b>1999</b>	<b>2000</b>
Air carriers	2,679	3,808	6,083	8,228	U
General aviation	131,743	211,045	196,800	219,464	
U					
Passenger cars <sup>a</sup>	89,243,557	121,600,843	133,700,496	132,432,044	
133,621,420					
Motorcycles	2,824,098	5,693,940	4,259,462	4,152,433	3,346,068
Other 2-axle, 4-tire vehicles	14,210,591	27,875,934	48,274,555	75,356,376	
79,084,979					
Trucks: Single-unit	3,681,405	4,373,784	4,486,981	5,762,864	5,926,030
Combination	905,082	1,416,869	1,708,895	2,028,562	2,096,619
Buses <sup>b</sup>	377,562	528,789	626,987	728,777	746,125
Passenger rail:					
Amtrak—Cars	N	2,128	1,863	1,992	1,894
Locomotives	N	419	318	329	378
Commuter railcars and locomotives	N	4,500	4,415	P <sup>4,883</sup>	U
Transit <sup>c</sup>	10,548	10,654	11,332	P <sup>11,603</sup>	U
Class I rail:					
Freight cars	1,423,921	1,168,114	658,902	579,140	560,154
Locomotives	27,077	28,094	18,835	20,256	20,028
Other freight cars	360,260	542,713	553,359	789,696	820,642
Nonself-propelled vessels <sup>d,e</sup>	19,377	31,662	31,209	33,387	U
Self-propelled vessels <sup>d,e</sup>	6,455	7,126	8,236	8,379	U
Oceangoing ships <sup>e</sup> (1,000 gross tons and over)	1,579	864	636	463	447
Recreational boats <sup>f</sup>	7,400,000	8,577,857	10,996,253	12,738,271	12,782,143

<sup>a</sup> In July 1997, the U.S. Department of Transportation, Federal Highway Administration, reassigned some vehicles from “passenger car” to “other 2-axle, 4-tire.”

<sup>b</sup> Includes municipally owned transit, commercial, federal, and school buses.

<sup>c</sup> Includes light and heavy rail only.

<sup>d</sup> See glossary.

<sup>e</sup> U.S. flag vessels.

<sup>f</sup> Numbered boats.

Key: N = data do not exist; P = preliminary; U = unavailable.

**Table 9**  
**Vehicle-Miles**  
(Millions)

<b>Mode</b>	<b>1970</b>	<b>1980</b>	<b>1990</b>	<b>1999</b>	<b>2000</b>
Air carriers	2,068	2,523	3,963	5,309	5,646
General aviation	3,207	5,204	4,830	<sup>a</sup> N	<sup>a</sup> N
Passenger cars	916,700	1,111,596	1,408,286	<sup>R</sup> 1,569,100	1,601,914
Motorcycles	2,979	10,214	9,557	10,584	10,479
Other 2-axle, 4-tire vehicles <sup>b</sup>	123,286	290,935	574,571	<sup>R</sup> 901,022	924,018
Trucks:					
Single-unit	27,081	39,813	51,901	<sup>R</sup> 70,304	70,583
Combination	35,134	68,678	94,341	<sup>R</sup> 132,384	135,208
Buses <sup>c</sup>	4,544	6,059	5,726	<sup>R</sup> 7,662	7,601
Rail: <sup>d</sup>					
Transit <sup>e</sup>	441	403	561	627	U
Commuter	N	179	213	<sup>P</sup> 266	U
Class I freight	29,890	29,277	26,159	33,851	34,590
Intercity/Amtrak <sup>f</sup>	690	235	301	342	U
Other transit <sup>g</sup>	N	15	<sup>R</sup> 324	790	U

<sup>a</sup>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.

<sup>b</sup>In July 1997, the U.S. Department of Transportation, Federal Highway Administration, reassigned some vehicle-miles from "passenger car" to "other 2-axle, 4-tire."

<sup>c</sup>Includes municipally owned transit, commercial, federal, and school buses.

<sup>d</sup>Car-miles.

<sup>e</sup>Includes light and heavy rail only.

<sup>f</sup>Fiscal year data. Amtrak began operations in 1971.

<sup>g</sup>Includes demand-responsive, ferry boat, and other transit not specified; 1980 data include "other transit" only.

Key: N = data do not exist; P = preliminary; R = revised; U = unavailable.

Sources: Various sources, as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 2001*, table 1-29, available Spring 2002 at [www.bts.gov](http://www.bts.gov), or email to [answers@bts.gov](mailto:answers@bts.gov).



Table 10  
**Passenger-Miles**  
 (Millions)

Mode	1970	1980	1990	1999	2000
Air carriers	108,442	204,368	345,873	487,906	515,367
General aviation	9,100	14,700	13,000	U	U
Passenger cars	1,750,897	2,011,989	2,281,391	<sup>R</sup> 2,494,870	2,547,044
Motorcycles <sup>a</sup>	3,277	12,257	12,424	<sup>R</sup> 11,527	11,527
Other 2-axle, 4-tire vehicles	225,613	520,774	999,754	<sup>R</sup> 1,432,625	1,469,189
Buses <sup>b</sup>	N	N	121,398	<sup>R</sup> 162,445	161,152
Rail:					
Transit <sup>c</sup>	N	10,939	12,046	U	U
Commuter	4,592	6,516	7,082	U	U
Intercity/ Amtrak <sup>d</sup>	6,179	4,503	6,057	5,330	5,498
Other transit <sup>e</sup>	N	390	841	U	U

<sup>a</sup> In July 1997, the U.S. Department of Transportation, Federal Highway Administration, reassigned some vehicles from “passenger car” to “other 2-axle, 4-tire.”

<sup>b</sup> Includes municipally owned transit, commercial, federal, and school buses.

<sup>c</sup> Includes light and heavy rail only.

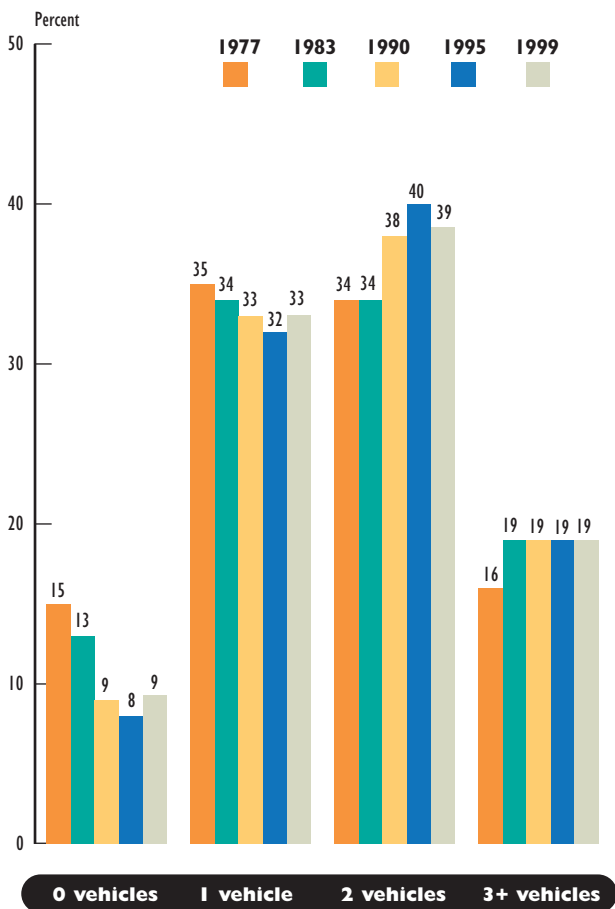
<sup>d</sup> Fiscal year data. Amtrak began operations in 1971.

<sup>e</sup> Includes demand-responsive, ferry boat, and other transit not specified; 1980 data include ferry boat and “other transit” only.

Key: N = data do not exist; R = revised. U = unavailable.

Sources: Various sources, as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 2001*, table I-31, available Spring 2002 at [www.bts.gov](http://www.bts.gov), or email to [answers@bts.gov](mailto:answers@bts.gov).

**Figure 4**  
**Households by Number of Vehicles**



Sources: U.S. Department of Transportation, Federal Highway Administration, *Nationwide Personal Transportation Survey, Our Nation's Travel* (Washington, DC: 1997). Data for 1999—U.S. Department of Commerce, Census Bureau, American Housing Survey, 1999.

Table 11

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

2000			1990		
Rank	Airport	Total enplaned passengers	Rank	Total enplaned passengers	% change 1990–2000
1	Atlanta (Hartsfield), GA	38,256	3	22,666	69
2	Chicago (O'Hare), IL	30,888	1	25,636	20
3	Dallas/Ft. Worth, TX	27,841	2	22,899	22
4	Los Angeles, CA	25,110	4	18,434	36
5	Denver, CO	17,643	6	11,962	47
6	Phoenix (Sky Harbor), AZ	17,239	7	10,727	61
7	Detroit (Wayne County), MI	16,930	9	9,903	71
8	Las Vegas (McCarran), NV	16,739	18	7,796	115
9	Minneapolis, MN	16,710	16	8,837	89
10	San Francisco, CA	16,664	5	13,475	24
11	Houston (Intercontinental), TX	15,815	20	7,544	110
12	Newark, NJ	15,205	10	9,854	54
13	St. Louis (Lambert-St. Louis), MO	15,101	13	9,332	62
14	Orlando, FL	13,466	19	7,678	75
15	Seattle, WA	13,308	21	7,386	80
16	Miami, FL	12,655	14	9,226	37
17	Boston (Logan), MA	11,506	12	9,550	20
18	New York (LaGuardia), NY	11,426	8	10,725	7
19	Philadelphia, PA	10,973	24	6,971	57
20	New York (JFK), NY	10,648	11	9,687	10
<b>Top 20 airports</b>		<b>354,124</b>		<b>240,288</b>	<b>47.4</b>

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

Sources: Total enplaned passengers: 1990—U.S. Department of Transportation (USDOT), Federal Aviation Administration (FAA) and Research and Special Programs Administration, *Airport Activity Statistics of Certificated Route Air Carriers, Twelve Months Ending December 31, 1990* (Washington, DC: 1991). 2000—USDOT, Bureau of Transportation Statistics (BTS), *Airport Activity Statistics of Certificated Air Carriers: Summary Tables, Twelve Months Ending December 31, 2000* (Washington, DC: 2001). Airport ranking: 1990—USDOT, FAA *Statistical Handbook, Calendar Year 1990* (Washington, DC: 1990). 2000—USDOT, BTS, *Airport Activity Statistics of Certificated Air Carriers: Summary Tables, Twelve Months Ending December 31, 2000* (Washington, DC: 2001).

Table 12

**U.S.-Canadian Border Land-Passenger Gateways: 2000**

<b>Land gateway</b>	<b>Entering the U.S.</b>
<b>All U.S.-Canadian land gateways</b>	
All personal vehicles	36,915,053
All personal vehicle passengers	90,046,948
All buses	189,264
All bus passengers	4,872,943
All train passengers	269,502
All pedestrians	585,191
<b>Personal vehicles—top 5 gateways</b>	
Detroit, MI	8,360,352
Buffalo-Niagara Falls, NY	7,657,846
Blaine, WA	3,332,147
Port Huron, MI	2,332,469
Calais, ME	1,414,327
<b>Personal vehicle passengers—top 5 gateways</b>	
Detroit, MI	21,723,936
Buffalo-Niagara Falls, NY	16,523,141
Blaine, WA	8,234,557
Port Huron, MI	6,865,507
Sault Ste. Marie, MI	3,881,423
<b>Buses—top 5 gateways</b>	
Buffalo-Niagara Falls, NY	66,771
Detroit, MI	41,234
Blaine, WA	18,104
Champlain-Rouses Point, NY	11,728
Skagway, AK	8,579
<b>Bus passengers—top 5 gateways</b>	
Buffalo-Niagara Falls, NY	1,973,016
Detroit, MI	857,607
Blaine, WA	441,320
Champlain-Rouses Point, NY	317,205
Port Huron, MI	155,153
<b>Train passengers—top 5 gateways</b>	
Buffalo-Niagara Falls, NY	53,603
Blaine, WA	46,643
Port Huron, MI	40,633
Champlain-Rouses Point, NY	38,459
Skagway, AK	35,253
<b>Pedestrians—top 5 gateways</b>	
Buffalo-Niagara Falls, NY	280,941
Sumas, WA	57,222
Calais, ME	51,033
Portland, ME (pedestrian/ferry combination crossing)	29,495
International Falls-Ranier, MN	26,456

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, special tabulation, 2001, based on U.S. Department of Treasury, U.S. Customs Service, Office of Field Operations, Operations Management database, 2000.

Table 13

**U.S.-Mexican Border Land-Passenger Gateways: 2000**

<b>Land gateway</b>	<b>Entering the U.S.</b>
<b>All U.S.-Mexican land gateways</b>	
All personal vehicles	91,156,796
All personal vehicle passengers	239,794,552
All buses	270,792
All bus passengers	3,465,916
All train passengers	18,254
All pedestrians	47,089,642
<b>Personal vehicles—top 5 gateways</b>	
El Paso, TX	16,697,439
San Ysidro, CA	14,106,704
Hidago, TX	8,779,691
Brownsville, TX	7,877,255
Laredo, TX	7,151,127
<b>Personal vehicle passengers—top 5 gateways</b>	
El Paso, TX	48,420,274
San Ysidro, CA	31,025,343
Hidago, TX	21,947,731
Calexico, CA	20,094,460
Brownsville, TX	19,693,130
<b>Buses—top 5 gateways</b>	
San Ysidro, CA	101,244
Otay Mesa, CA	47,683
Laredo, TX	34,529
Hidalgo, TX	31,836
Brownsville, TX	16,073
<b>Bus passengers—top 5 gateways</b>	
Otay Mesa, CA	845,755
San Ysidro, CA	783,762
Hidalgo, TX	648,751
Laredo, TX	608,184
El Paso, TX	155,493
<b>Train passengers—top 5 gateways</b>	
Eagle Pass, TX	5,792
Nogales, AZ	4,752
Tecate, CA	3,418
El Paso, TX	2,188
Calexico East, CA	1,687
<b>Pedestrians—top 5 gateways</b>	
Calexico, CA	8,352,324
San Ysidro, CA	7,542,450
El Paso, TX	5,825,155
Laredo, TX	5,492,769
Nogales, AZ	4,677,819

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, special tabulation, 2001, based on U.S. Department of Treasury, U.S. Customs Service, Office of Field Operations, Operations Management database, 2000.

Table 14  
**Top 20 U.S. Water Ports by Weight**  
*(Millions of tons)*

1999			1990		
Rank	Port	Total tons	Rank	Total tons	% change 1990–99
1	South Louisiana, LA	214.2	1	194.2	10.3
2	Houston, TX	158.8	3	126.2	25.9
3	New York, NY & NJ	133.7	2	140.0	-4.5
4	New Orleans, LA	87.5	6	62.7	39.5
5	Corpus Christi, TX	78.1	7	62.0	25.9
6	Beaumont, TX	<sup>R</sup> 69.4	23	26.7	<sup>R</sup> 159.6
7	Baton Rouge, LA	63.7	5	78.1	-18.5
8	Plaquemine, LA	<sup>R</sup> 62.5	8	56.6	<sup>R</sup> 10.4
9	Long Beach, CA	60.9	10	52.4	16.2
10	Valdez, AK	53.4	4	96.0	-44.3
11	Pittsburgh, PA	52.9	19	35.5	49.0
12	Tampa, FL	51.5	11	51.6	-0.2
13	Lake Charles, LA	<sup>R</sup> 50.7	16	40.9	<sup>R</sup> 24.0
14	Texas City, TX	49.5	12	48.1	3.0
15	Mobile, AL	<sup>R</sup> 45.4	15	41.1	<sup>R</sup> 10.4
16	Duluth-Superior, MN & WI	42.3	17	40.8	3.8
17	Los Angeles, CA	42.3	13	46.4	-8.7
19	Norfolk Harbor, VA	40.8	9	53.7	-24.1
18	Philadelphia, PA	39.3	14	41.8	-6.0
20	Baltimore, MD	37.3	18	39.5	-5.7
<b>Total top 20</b>		<b><sup>R</sup>1,434.2</b>	<b>1,334.4</b>		<b>7.5</b>

Key: R = revised.

Note: See table 18 for top 20 freight gateways by value.

Sources: 1990—U.S. Army Corps of Engineers, *Waterborne Commerce of the United States, Calendar Year 1990, Part 5, National Summaries* (New Orleans, LA: 1993), table 5-2.

1999—Ibid., *Waterborne Commerce of the United States, Calendar Year 1999, Part 5, National Summaries*, personal communication.

Table 15  
**U.S. Commercial Freight Shipments: 1997**

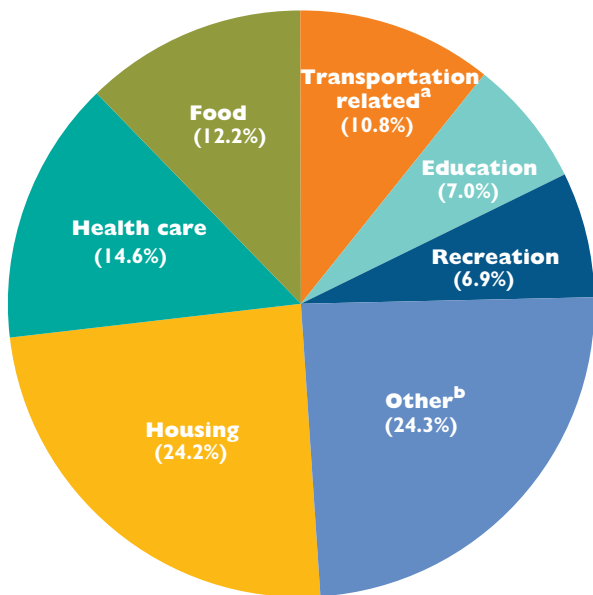
Mode	Value		Tons		Ton-miles	
	Billions of 1997 \$	Percent	Millions	Percent	Billions	Percent
Truck (for-hire, private, both)	5,336	62.3	8,836	59.7	1,109	28.8
Parcel, postal, courier services	856	10.0	34	0.2	18	0.5
Water	762	8.9	2,220	15.0	726	18.9
Air (includes truck and air)	653	7.6	10	0.1	6	0.2
Rail (includes truck and rail)	436	5.1	1,676	11.3	1,132	29.4
Pipeline	231	2.7	1,448	9.8	656	17.0
Other and unknown modes	293	3.4	576	3.9	204	5.3
<b>Total<sup>a</sup></b>	<b>\$8,567</b>	<b>100.0</b>	<b>14,800</b>	<b>100.0</b>	<b>3,851</b>	<b>100.0</b>

<sup>a</sup> Data from the Commodity Flow Survey (CFS), plus Bureau of Transportation Statistics estimates to fill in CFS gaps. The estimates cover out-of-scope farm-based truck shipments, truck and rail imports from Canada and Mexico, and air cargo and water imports and exports.

Sources: U.S. Department of Transportation, Bureau of Transportation Statistics and U.S. Department of Commerce, Census Bureau, *1997 Commodity Flow Survey: United States* (Washington, DC: December 1999); and Oak Ridge National Laboratory data.

**T**ransportation 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 2000, transportation-related goods and services contributed \$1,050 billion to a \$9.87 trillion U.S. Gross Domestic Product.

Figure 5  
**U.S. Gross Domestic Product by Major Societal Function: 2000**

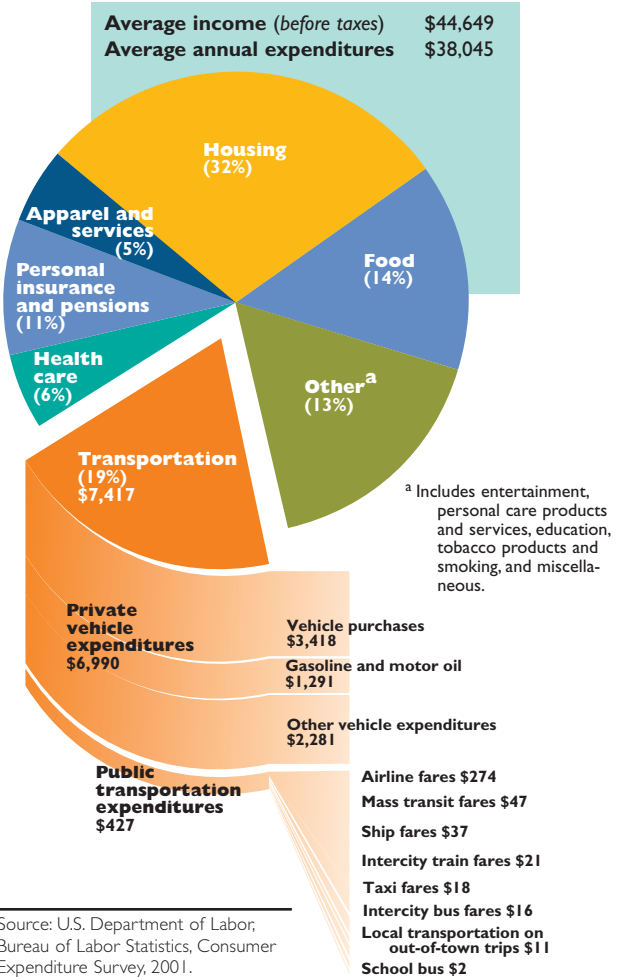


<sup>a</sup> Includes all consumer and government purchases of goods (e.g., vehicles and fuel) and services (e.g., auto insurance) and exports related to transportation. <sup>b</sup> Includes all other categories, such as entertainment, personal care products and services, and payments to pension plans.

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 2001.



Figure 6  
**Average Household Expenditures by Major Category: 2000**  
*(In current dollars)*



Source: U.S. Department of Labor, Bureau of Labor Statistics, Consumer Expenditure Survey, 2001.

Table 16  
**Value of U.S. International Merchandise Trade by Mode of Transportation: 2000**  
 (Millions of current U.S. dollars)

	<b>Exports</b>	<b>Modal %</b>	<b>Imports</b>	<b>Modal %</b>	<b>Total trade</b>	<b>Total modal %</b>
<b>Total</b>	<b>780,419</b>	<b>100.0</b>	<b>1,216,888</b>	<b>100.0</b>	<b>1,997,307</b>	<b>100.0</b>
Water	199,069	25.5	540,895	44.4	739,964	37.0
Air	284,356	36.4	308,642	25.4	592,998	29.7
Truck	212,214	27.2	216,485	17.8	428,699	21.5
Rail	23,443	3.0	70,755	5.8	94,198	4.7
Pipeline	464	<0.1	23,129	1.9	23,593	1.2
Other, unknown, & miscellaneous	60,873	7.8	56,982	4.7	117,855	5.9

Notes:

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.

Numbers may not sum to total due to rounding.

Sources: Compiled by U.S. Department of Transportation (USDOT), Bureau of Transportation Statistics (BTS), 2001. Total, 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 2000. Truck, rail, pipeline, other and unknown data; USDOT, BTS, Transborder Surface Freight Data 2001; and special tabulations.

Table 17  
**U.S. Merchandise Trade with Canada and Mexico by Mode: 2000**

<b>Mode</b>	<b>Value (percent)</b>	<b>Weight (percent)</b>
<b>NAFTA trade, total</b>	<b>100.0</b>	<b>100.0</b>
Truck	65.6	35.1
Rail	14.4	17.4
Pipeline	3.6	14.8
Air	6.9	0.2
Water	5.0	32.4
Other and unknown	4.5	0.1
<b>U.S.-NAFTA imports, total</b>	<b>100.0</b>	<b>100.0</b>
Truck	59.3	25.7
Rail	19.4	19.8
Pipeline	6.3	20.5
Air	4.9	0.1
Water	6.4	33.9
Other and unknown	3.7	0.1
<b>U.S.-NAFTA exports, total</b>	<b>100.0</b>	<b>100.0</b>
Truck	73.6	55.7
Rail	8.1	12.3
Pipeline	0.2	2.3
Air	9.3	0.4
Water	3.2	29.2
Other and unknown	5.5	0.2

Sources: U.S. Department of Transportation, Bureau of Transportation Statistics, June 2001; based on: total, 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 2000; truck, rail, pipeline, other and unknown data—U.S. Department of Transportation, Bureau of Transportation Statistics, Transborder Surface Freight Data, 2001; and special tabulations.

**Table 18**  
**Top 20 Foreign Trade Freight Gateways by**  
**Value of Shipments: 2000**  
*(Billions of current dollars)*

Rank	Gateway	Exports	Imports	Total
1	JFK International, NY (a)	56.0	75.5	131.6
2	Port of Los Angeles, CA (w)	16.7	85.1	101.8
3	Port of Long Beach, CA (w)	16.9	81.3	98.2
4	Port of Detroit, MI (l)	49.5	44.9	94.4
5	San Francisco Airport, CA (a)	41.8	46.9	88.7
6	Port of Laredo, TX (l)	39.2	44.4	83.7
7	Port of New York, NY and NJ (w)	19.7	61.2	80.9
8	Los Angeles International Airport, CA (a)	41.7	35.6	77.3
9	Port of Buffalo-Niagara Falls, NY (l)	36.2	33.9	70.1
10	Port of Huron, MI (l)	18.8	40.9	59.7
11	Chicago, IL (a)	20.4	25.4	45.7
12	Port of Houston, TX (w)	18.7	24.6	43.4
13	Port of El Paso, TX (l)	17.5	21.9	39.4
14	Port of Seattle, WA (w)	5.4	26.9	32.3
15	New Orleans, LA (a)	16.2	15.9	32.0
16	Port of Charleston, SC (w)	11.3	20.2	31.5
17	Port of Norfolk Harbor, VA (w)	11.1	14.1	25.2
18	Port of Oakland, CA (w)	9.6	15.5	25.1
19	Cleveland, OH (a)	11.8	12.7	24.5
20	Miami International Airport, FL (a)	15.9	7.7	23.6

Key: a = air; l = land; w = water.

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 JFK, New Orleans, Los Angeles, Cleveland, Chicago, and Miami. Numbers may not add to totals due to rounding. Water data are preliminary.

See table 14 for top water ports by weight.

Sources: Air—U.S. Department of Commerce, U.S. Census Bureau, Foreign Trade Division, special tabulation, August, 2001. Water—U.S. Department of Transportation (USDOT), Maritime Administration, Office of Statistical and Economic Analysis, personal communication, Sept. 5, 2001. Land—USDOT, Bureau of Transportation Statistics, Transborder Surface Freight Data, 2001.

Table 19  
**Employment in For-Hire Transportation and  
 Selected Transportation-Related Industries<sup>a</sup>**  
*(Thousands)*

	1970	1980	1990	1995	2000
Total transportation and related industries employment	R5,999	R8,535	10,133	10,527	U
<b>For-hire transport sector total</b>	<b>2,726</b>	<b>3,175</b>	<b>R3,715</b>	<b>4,083</b>	<b>U</b>
Air	352	453	968	1,068	1,281
Local and inter-urban passenger transit	280	R266	338	420	477
Pipeline <sup>b</sup>	50	236	223	194	U
Railroad	634	532	279	238	236
Transportation services	115	198	336	401	471
Trucking and warehousing	1,083	1,280	1,395	1,587	1,856
Water	212	211	177	175	196
<b>Equipment manufacturing total</b>	<b>1,949</b>	<b>1,995</b>	<b>2,073</b>	<b>R1,872</b>	<b>1,928</b>
<b>Other related industries total</b>	<b>613</b>	<b>2,694</b>	<b>3,672</b>	<b>3,930</b>	<b>4,464</b>
Automotive and home supply stores	U	261	337	369	407
Automotive repair services and parking; gasoline service stations	C613	1,132	1,561	1,669	1,901
Highway and street construction	U	U	239	228	280
Motor vehicles/parts/supplies, new/used car dealers, and other automotive retailers	U	1,301	1,535	1,664	1,875
<b>Government employment<sup>d</sup> total</b>	<b>711</b>	<b>671</b>	<b>673</b>	<b>644</b>	<b>646</b>

<sup>a</sup> Annual averages.

<sup>b</sup> Includes liquid and natural gas transmission pipelines.

<sup>c</sup> Includes gasoline service stations only.

<sup>d</sup> Data are for fiscal years and include permanent and temporary civilian and military personnel.

Key: R = revised; U = unavailable.

Source: Various sources, as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 2001*, available Spring 2002 at [www.bts.gov](http://www.bts.gov), or email to [answers@bts.gov](mailto:answers@bts.gov).

**Table 20**  
**Government Transportation Revenues by Mode**  
**and Level of Government**  
*(Millions of current dollars)*

	<b>1980</b>	<b>1990</b>	<b>1995</b>	<b>1999</b>	<b>2000</b>
<b>Highway total</b>	<b>25,268</b>	<b>49,945</b>	<b>66,743</b>	<b>88,668</b>	<b>U</b>
Federal:					
Highway Trust Fund— Highway Account <sup>a</sup>	7,647	13,453	19,377	33,823	30,347
State	16,287	32,644	42,415	48,784	U
Local	1,334	3,848	4,952	6,061	U
<b>Transit total</b>	<b>2,397</b>	<b>7,193</b>	<b>9,352</b>	<b>13,186</b>	<b>U</b>
Federal:					
Highway Trust Fund— Mass Transit Account	—	1,977	2,813	5,478	4,625
State	362	1,074	1,257	1,404	U
Local	2,035	4,142	5,283	6,304	U
<b>Air total</b>	<b>4,100</b>	<b>10,119</b>	<b>13,954</b>	<b>21,079</b>	<b>U</b>
Federal: Airport and Airway Trust Fund <sup>b</sup>	2,274	4,945	6,291	11,089	10,544
State	190	556	695	744	U
Local	1,636	4,617	6,968	9,246	U
<b>Water total</b>	<b>1,211</b>	<b>2,487</b>	<b>3,567</b>	<b>3,923</b>	<b>U</b>
Federal: water receipts <sup>c</sup>	391	999	1,644	1,568	1,175
State	249	355	479	651	U
Local	572	1,133	1,444	1,704	U
<b>Pipeline total</b>	<b>—</b>	<b>10</b>	<b>35</b>	<b>30</b>	<b>40</b>
Federal: Pipeline Safety Fund	—	10	35	30	40
<b>General support total</b>	<b>—</b>	<b>—</b>	<b>7</b>	<b>8</b>	<b>25</b>
Federal: Emergency Preparedness Fund	—	—	7	8	25
<b>Total, all modes</b>	<b>32,977</b>	<b>69,753</b>	<b>93,659</b>	<b>126,895</b>	<b>U</b>
Federal	10,312	21,384	30,166	51,996	46,756
State	17,088	34,629	44,846	51,584	U
Local	5,577	13,740	18,647	23,315	U

<sup>a</sup> Since 1983, some Highway Trust Fund fuel tax has gone to transit.

<sup>b</sup> A requirement that 10% of passenger ticket taxes and other taxes paid by airport and airway users be transferred to this trust fund expired in December 1996. <sup>c</sup> Includes Harbor Maintenance Trust Fund, St. Lawrence Seaway tolls, Inland Waterway Trust Fund, Panama Canal receipts, Oil Spill Liability Trust Fund, Offshore Oil Pollution Fund, Deep Water Port Liability Fund, and excise taxes of the Boat Safety Program.

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

Note: Data have been revised and are preliminary. Numbers may not add to totals due to rounding. Only federal government revenues are included in FY 2000.

Source: Various sources, as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *Government Transportation Financial Statistics*, available Spring 2002 at [www.bts.gov](http://www.bts.gov), or, for more details, send email to [answers@bts.gov](mailto:answers@bts.gov).

Table 21

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

	<b>1980</b>	<b>1990</b>	<b>1995</b>	<b>1999</b>	<b>2000</b>
<b>Highway total</b>	<b>34,553</b>	<b>62,563</b>	<b>79,309</b>	<b>95,494</b>	<b>U</b>
Federal	11,706	15,452	20,078	23,589	27,657
State and local	22,847	47,112	59,232	71,905	U
<b>Transit total</b>	<b>8,949</b>	<b>19,261</b>	<b>26,162</b>	<b>29,027</b>	<b>U</b>
Federal	3,307	3,832	4,474	4,265	5,337
State and local	5,642	15,429	21,688	24,762	U
<b>Rail total</b>	<b>2,497</b>	<b>541</b>	<b>1,043</b>	<b>565</b>	<b>U</b>
Federal	2,474	534	1,034	546	755
State and local	23	7	9	19	U
<b>Air total</b>	<b>5,673</b>	<b>12,568</b>	<b>16,960</b>	<b>21,789</b>	<b>U</b>
Federal	3,762	7,305	10,389	10,722	9,556
State and local	1,911	5,263	6,571	11,067	U
<b>Water total</b>	<b>4,477</b>	<b>5,480</b>	<b>6,628</b>	<b>7,682</b>	<b>U</b>
Federal	3,308	3,537	4,380	4,565	4,810
State and local	1,168	1,943	2,247	3,117	U
<b>Pipeline total<sup>a</sup></b>	<b>–</b>	<b>26</b>	<b>43</b>	<b>30</b>	<b>U</b>
Federal	–	9	19	30	27
State and local	–	17	24	U	U
<b>General support total<sup>b</sup></b>	<b>259</b>	<b>190</b>	<b>372</b>	<b>221</b>	<b>226</b>
Federal, general support	259	190	372	221	226
<b>Total all modes</b>	<b>56,407</b>	<b>100,629</b>	<b>130,518</b>	<b>154,808</b>	<b>U</b>
Federal	24,815	30,858	40,746	43,938	48,368
State and local	31,592	69,770	89,772	110,871	U

<sup>a</sup> Includes gas and liquid pipeline.<sup>b</sup> General support includes administrative and operating expenditures of the U.S. Department of Transportation, the Interstate Commerce Commission, Office of the Inspector General, the Research and Special Programs Administration, and the National Transportation Safety Board.

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

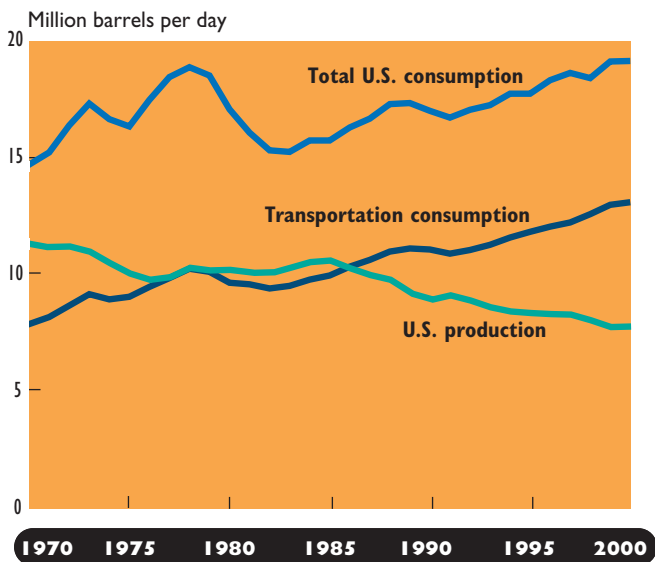
Note: Data in this table have been revised and should be considered preliminary. Numbers may not add to totals due to rounding. Only federal government expenditures are included in FY 2000.

Source: Various sources, as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *Government Transportation Financial Statistics*, available Spring 2002 at [www.bts.gov](http://www.bts.gov), or, for more details, send email to [answers@bts.gov](mailto:answers@bts.gov).

## 5 Transportation, Energy, and the Environment

**S**erious energy and environmental issues are associated with transportation. The U.S. transportation sector remains almost entirely dependent on petroleum as an energy source and more than 50 percent of the petroleum used in the United States is now imported. Petroleum use is responsible for most of the environmental problems resulting from transportation, including carbon dioxide emissions that may contribute to global climate change.

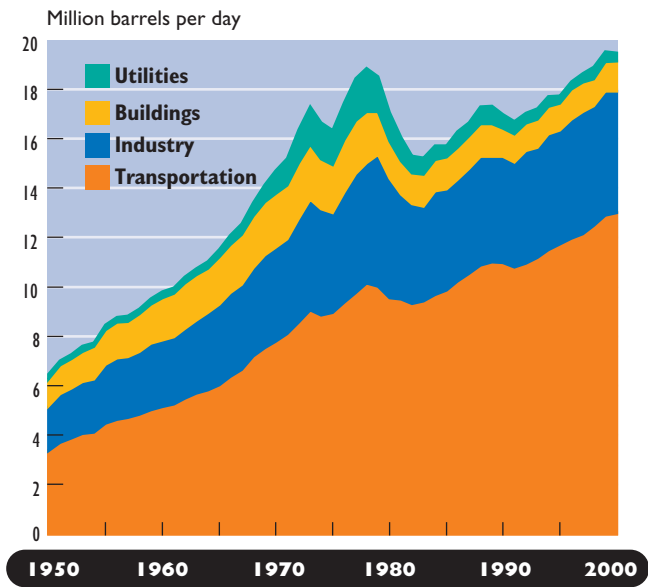
Figure 7  
**U.S. Petroleum Production and Consumption**



Source: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 2000* (Washington, DC: August 2001), table 5.1.

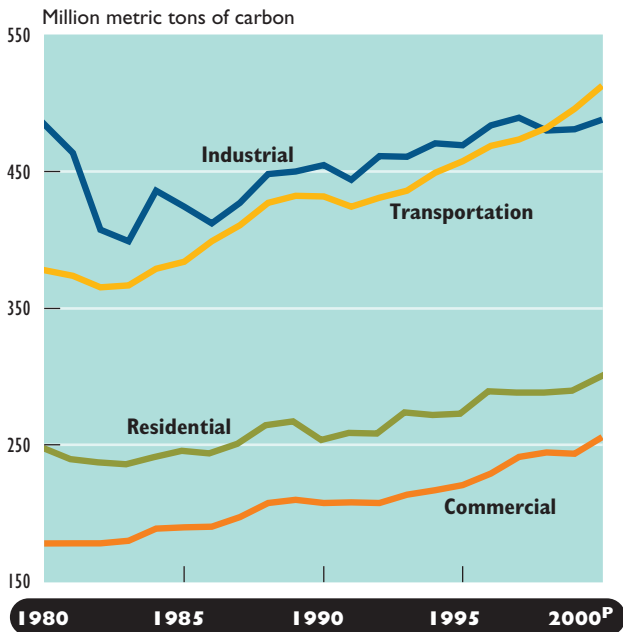


Figure 8  
**Transportation's Share of  
U.S. Petroleum Use**



Source: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 2000* (Washington, DC: August 2001), table 5.12.

Figure 9  
**U.S. Carbon Dioxide Emissions from Energy Use**



Key: P = 2000 data are preliminary.

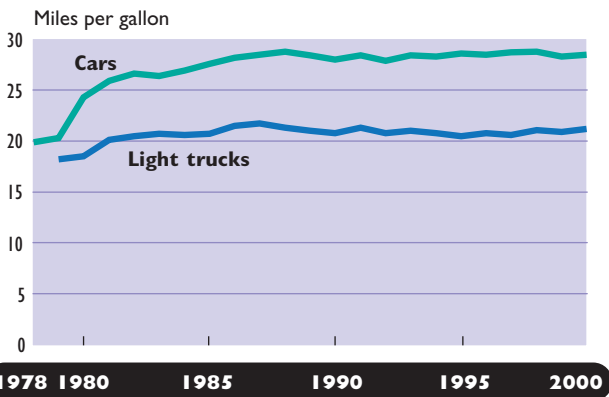
Notes: One ton of carbon equals 3.667 tons of carbon dioxide gas.

Electric utility emissions are spread across end-user sections.

Source: U.S. Department of Energy, Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2000*, available at [www.eia.doe.gov](http://www.eia.doe.gov).

Figure 10

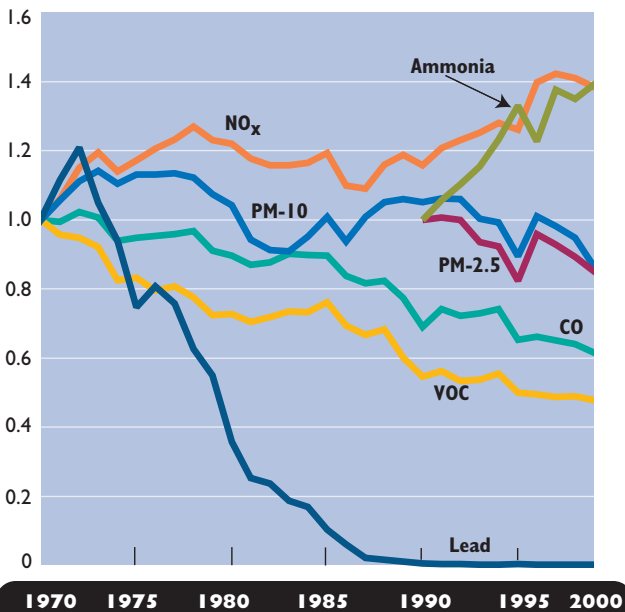
### New Passenger Car and Light Truck Fuel Economy Averages: Model Years 1978–2000



Source: U.S. Department of Transportation, National Highway Traffic Safety Administration, *Automotive Fuel Economy Program: Annual Update Calendar Year 2000*, July 2001, table II-6, available at [www.nhtsa.dot.gov/cars](http://www.nhtsa.dot.gov/cars), as of August 2001.

Figure 11  
**Index of Key Air Pollutant Emissions from  
 U.S. Transportation**

Index: 1970 = 1.0, 1990 = 1.0 for PM-2.5 and ammonia



Key: NO<sub>x</sub> = oxides of nitrogen; PM-10 and PM-2.5 = airborne particulates of less than 10 microns or 2.5 microns in diameter, respectively; CO = carbon monoxide; VOC = volatile organic compounds.

Notes: Transportation emissions include all onroad mobile sources and the following nonroad mobile sources: recreational vehicles and boats, airport service equipment, aircraft, commercial marine vessels, and railroads. Other nonroad sources, such as lawnmowers and farming equipment, are not included. Lead estimates include onroad mobile sources only.

Source: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, *National Air Pollutant Trends*, available at [www.epa.gov/ttn/chieff/trends/index.html](http://www.epa.gov/ttn/chieff/trends/index.html), as of September 2001.

## 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 indices, 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 in excess of \$250 million (based on 1991 dollars).
- 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.
- Demand-responsive 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.
- General aviation**—All 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.
- Heavy-rail transit**—High-speed transit rail operated on rights-of-way that exclude all other vehicles and pedestrians.
- Hub**—A geographic area based on the percentage of total enplaned passengers in that area. A hub may have more than one airport in it. This definition should not be confused with the definition used by airlines in describing their “hub and spoke” route structures or other definitions of hubs used by the Federal Aviation Administration focusing on traffic at individual airports.

**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.

**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 pickups, vans, truck-based station wagons, and sport utility vehicles.

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

**Other 2-axle, 4-tire vehicles**—Includes vans, pickup trucks, and sport utility vehicles. Does not include passenger cars.

**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.

**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.

