

Section D

Travel and Goods Movement

Table 1-29

U.S. Vehicle-Miles (Millions)

	1960	1965	1970	1975	1980	1985	1990	1995	1996	1997	1998
Air											
Air carrier, large certificated, domestic, all services	858	1,134	2,068	1,948	2,523	3,046	3,963	4,629	4,811	4,911	5,035
General aviation ^a	1,769	2,562	3,207	4,238	5,204	4,673	4,548	3,795	3,524	3,877	U
Highway^R											
Passenger car ^{b,c}	587,012	722,696	916,700	1,033,950	1,111,596	1,246,798	1,408,266	1,428,497	1,469,854	1,502,556	1,549,577
Motorcycle ^b	^h	^h	2,979	5,629	10,214	9,086	9,557	9,797	9,920	10,081	10,283
Other 2-axle 4-tire vehicle ^c	^h	^h	123,286	200,700	290,935	390,961	574,571	790,029	816,540	850,739	868,275
Truck											
Single-unit 2-axle 6-tire or more truck	98,551	128,769	27,081	34,606	39,813	45,441	51,901	62,705	64,072	66,893	68,021
Combination truck	28,854	31,665	35,134	46,724	68,678	78,063	94,341	115,451	118,899	124,584	128,359
Bus	4,346	4,681	4,544	6,055	6,059	4,478	5,726	6,420	6,563	6,842	7,007
Total highway^c	718,763	887,811	1,109,724	1,327,664	1,527,295	1,774,827	2,144,362	2,412,899	2,485,848	2,561,695	2,631,522
Transit											
Motor bus ^d	1,576	1,528	1,409	1,526	1,677	1,863	2,130	2,184	2,221	^R 2,245	^P 2,291
Light rail	75	42	34	24	18	17	24	35	38	41	^P 43
Heavy rail	391	395	407	423	385	451	537	537	543	558	^P 566
Trolley bus	101	43	33	15	13	16	14	14	14	14	^P 14
Commuter rail	N	N	N	173	179	183	213	238	242	251	^P 265
Demand responsive ^d	N	N	N	N	N	247	306	507	548	^R 585	^P 698
Ferry boat	N	N	N	N	^I	^I	2	3	3	2	2
Other	N	N	N	15	15	15	^R 18	^R 37	^R 45	^R 52	53
Total transit^e	2,143	2,008	1,883	2,176	2,287	2,791	3,242	3,550	3,650	^R3,746	^P3,932
Rail											
Class I freight, train-miles	404	421	427	403	428	347	380	458	469	475	475
Class I freight, car-miles	28,170	29,336	29,890	27,656	29,277	24,920	26,159	30,383	31,715	31,660	32,657
Intercity/Amtrak ^f , train-miles	209	172	93	30	30	30	33	32	30	32	33
Intercity/Amtrak ^f , car-miles	2,208	1,775	690	253	235	251	301	292	^R 276	288	312
Total train-miles^g	613	593	520	433	458	377	413	490	499	507	508

KEY: N = data do not exist; P = preliminary;
R = revised; U = data are not available

Continued next page

^a All operations other than those operating under 14 CFR 121 and 14 CFR 135. Data for 1996 are estimated using new information on nonrespondents and are not comparable to earlier years. Mileage in source is multiplied by 1.151 to convert to nautical-miles for 1985-1997.

^b U.S. Department of Transportation, Federal Highway Administration (FHWA), provides data separately for passenger car and motorcycle in its annual Highway Statistics series. However, the 1995 summary report provides updated data for passenger car and motor cycle combined. Passenger car figures in this table were computed by U.S. Department of Transportation, Bureau of Transportation Statistics by subtracting the most current motorcycle figures from the aggregate passenger car and motorcycle figures.

^c In July 1997, the FHWA published revised vehicle-miles data for the highway modes for many years. The major change reflected the reassignment of some vehicles, such as sport utility vehicles and minivans, from the passenger car category to the other 2-axle 4-tire vehicle category.

^d Motor bus and demand responsive figures are also included in the bus figure for highway.

^e Prior to 1985, excludes demand responsive and most rural and smaller systems funded via Sections 18 and 16(b)2, Federal Transit Act. The series is not continuous between 1980 and 1985. Transit rail modes are measured in car-miles. Car-miles measure individual vehicle-miles in a train. A 10-car train traveling 1 mile would equal 1 train-mile and 10 car-miles.

^f Amtrak began operations in 1971.

^g Although both train-miles and car-miles are shown for rail, only train-miles are included in the total. A train-mile is the movement of a train, which can consist of multiple vehicles (cars), the distance of 1 mile. This differs from a vehicle-mile, which is the movement of 1 vehicle the distance of 1 mile. A 10-vehicle train traveling 1 mile would be measured as 1 train-mile and 10 vehicle-miles. Caution should be used when comparing train-miles with vehicle miles.

^h 1960-65, motorcycle data are included in passenger car, and other 2-axle 4-tire vehicle data included in single-unit 2-axle 6-tire or more truck.

ⁱ Ferry boat included with other.

SOURCES:

Air:

Air carrier: 1960: Civil Aeronautics Board, *Handbook of Airline Statistics 1969* (Washington, DC: 1970), part III, table 2.

1965-70: Ibid., *Handbook of Airline Statistics 1973* (Washington, DC: 1974), part III, table 2.

1975-80: Ibid., *Air Carrier Traffic Statistics* (Washington, DC: 1976, 1981), p. 4 (December 1976) and p. 2 (December 1981).

1985-98: U.S. Department of Transportation, Bureau of Transportation Statistics, Office of Airline Information, *Air Carrier Traffic Statistics* (Washington, DC: Annual December issues), p. 2, line 27 plus line 50.

General aviation: 1960-65: U.S. Department of Transportation, Federal Aviation Administration, *FAA Statistical Handbook of Aviation 1972* (Washington, DC: 1973), table 9.10.

1970-75: U.S. Department of Transportation, Federal Aviation Administration, *FAA Statistical Handbook of Aviation 1976* (Washington, DC: 1976), table 8-5.

1980: U.S. National Transportation Safety Board estimate, personal communication, Dec. 7, 1998.

1985-92: Ibid., *General Aviation Activity and Avionics Survey* (Washington, DC: Annual issues), table 3.3.

1993-97: Ibid., *General Aviation and Air Taxi Activity and Avionics Survey* (Washington, DC: Annual issues), table 3.3.

Highway:

Passenger car and motorcycle: 1960-94: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics Summary to 1995* (updated June 1999), Internet site <http://www.fhwa.dot.gov/ohim/summary95/index.html>, as of July 28, 2000, table VM-201A.

1995-98: Ibid., *Highway Statistics* (Washington, DC: Annual issues), table VM-1, sum of passenger car and motorcycle.

Motorcycle: 1970-80: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics, Summary to 1985* (Washington, DC: 1986), table VM-201A.

1985-98: Ibid., *Highway Statistics* (Washington, DC: Annual issues), table VM-1.

Other 2-axle 4-tire vehicle: 1970-94: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics Summary to 1995* (updated June 1999), Internet site <http://www.fhwa.dot.gov/ohim/summary95/index.html>, as of July 28, 2000, table VM-201A.

1995-98: Ibid., *Highway Statistics* (Washington, DC: Annual issues), table VM-1.

Single-unit 2-axle 6-tires or more truck, combination truck, and bus: 1960-94: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics Summary to 1995* (updated June 1999), Internet site <http://www.fhwa.dot.gov/ohim/summary95/index.html>, as of July 28, 2000, table VM-201A.

1995-98: Ibid., *Highway Statistics* (Washington, DC: Annual issues), table VM-1.

Transit:

1960-98: American Public Transit Association, *Public Transportation Fact Book* (Washington, DC: 2000), table 42, 84, and similar tables in earlier editions.

Rail:

Class I rail freight train- and car-miles: 1960-98: Association of American Railroads, *Railroad Facts, 1998* (Washington, DC: 1999), p. 33 (train-miles) and p. 34 (car-miles).

Intercity/Amtrak train-miles: 1960-70: Association of American Railroads, *Yearbook of Railroad Facts* (Washington, DC: 1975), p. 39.

1975-98: Amtrak, *Amtrak Annual Report*, Statistical Appendix (Washington, DC: Annual issues).

Intercity/Amtrak car-miles: 1960-75: Association of American Railroads, *Yearbook of Railroad Facts* (Washington, DC: 1975), p. 40.

1980-98: Amtrak, Amtrak Corporate Reporting, Route Profitability System, personal communication, 1999.

Table 1-30 Roadway Vehicle-Miles Traveled (VMT) and VMT per Lane-Mile by Functional Class

	1980	1985	1990	1995	1996	1997	1998
VMT (millions)							
Urban							
Interstate	161,242	216,188	278,901	341,515	351,579	361,401	374,622
Other arterials ^a	484,189	578,270	699,233	815,102	834,623	846,659	862,994
Collector	83,043	89,578	106,297	126,883	129,310	130,143	131,919
Local	126,791	160,062	191,053	205,907	208,374	222,142	228,530
Total	855,265	1,044,098	1,275,484	1,489,407	1,523,886	1,560,345	1,598,065
Rural							
Interstate	135,084	154,357	200,173	223,382	232,565	240,255	251,520
Other arterials ^a	262,774	282,803	330,866	368,595	378,847	392,058	403,484
Collector ^b	189,468	206,669	240,460	236,148	241,030	254,364	257,858
Local	84,704	86,899	97,379	105,164	107,752	114,673	120,595
Total	672,030	730,728	868,878	933,289	960,194	1,001,350	1,033,457
VMT per lane-mile (thousands)							
Urban							
Interstate	3,327	3,773	4,483	4,785	^R 4,897	4,953	5,081
Other arterials ^a	1,451	1,556	1,751	1,828	^R 1,857	1,857	1,891
Collector	572	552	634	686	^R 692	694	699
Local	146	168	184	181	181	188	192
Total	613	677	764	809	^R 820	822	838
Rural							
Interstate	1,031	1,170	1,473	1,693	^R 1,749	1,804	1,882
Other arterials ^a	518	555	640	695	710	729	749
Collector ^b	132	141	164	167	170	179	182
Local	19	20	23	25	^R 25	27	29
Total	103	113	136	148	151	157	164

^a For urban: the sum of other freeways and expressways, other principal arterials, and minor arterials.

For rural: the sum of other principal arterials and minor arterials.

^b Collector is the sum of major and minor collectors (rural only).

NOTE: See table 1-5 for estimated highway lane-miles by functional class.

SOURCES: 1980-90: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics Summary to 1995*,

FHWA-PL-97-009 (Washington, DC: July 1997), table VM-202.

1995-97: Ibid., *Highway Statistics* (Washington, DC: Annual issues), tables VM-2 and VM-2A.

Lane-miles: 1980-95: Ibid., Office of Highway Information Management, unpublished data, 1997, table HM-260.

1996-98: Ibid., *Highway Statistics* (Washington, DC: Annual issues), table HM-60.

KEY: R = revised

Table 1-31 U.S. Passenger-Miles (Millions)

	1960	1965	1970	1975	1980	1985	1990	1995	1996	1997	1998
Air											
Air carrier, certificated, domestic, all services	^R 31,099	^R 53,226	^R 108,442	136,000	^R 204,368	^R 277,836	^R 345,873	^R 403,888	^R 434,652	^R 450,612	463,262
General aviation ^a	2,300	4,400	9,100	11,400	14,700	12,300	13,000	^R 10,800	^R 12,000	12,500	13,300
Highway^R											
Passenger car ^{b,c}	1,144,673	1,394,803	1,750,897	1,954,166	2,011,989	2,094,621	2,281,391	2,271,310	2,337,068	2,389,064	2,463,827
Motorcycle ^{b,c}	^g	^g	3,277	6,192	12,257	11,812	12,424	11,560	11,706	11,896	12,134
Other 2-axle 4-tire vehicle ^c	^h	^h	225,613	363,267	520,774	688,091	999,754	1,295,648	1,339,126	1,395,212	1,423,971
Truck											
Single-unit 2-axle 6-tire or more truck	98,551	128,769	27,081	34,606	39,813	45,441	51,901	62,705	64,072	66,893	67,021
Combination truck	28,854	31,665	35,134	46,724	68,678	78,063	94,341	115,451	118,899	124,584	128,359
Bus ^d	N	N	N	N	N	94,925	121,398	136,104	138,613	145,060	148,325
Total^c	1,272,078	1,555,237	2,042,002	2,404,954	2,653,510	3,012,953	3,561,209	3,892,778	4,009,484	4,132,709	4,243,637
Transit											
Motor bus ^d	N	N	N	N	^R 21,790	^R 21,161	^R 20,981	^R 18,818	^R 19,096	^R 19,604	^P 20,602
Light rail	N	N	N	N	381	350	571	860	957	^R 1,035	^P 1,118
Heavy rail	N	N	N	N	^R 10,558	^R 10,427	^R 11,475	^R 10,559	^R 11,530	^R 12,056	^P 12,284
Trolley bus	N	N	N	N	219	306	193	187	184	189	^P 182
Commuter rail ^R	4,197	4,128	4,592	4,513	6,516	6,534	7,082	8,244	8,351	8,038	^P 8,716
Demand responsive ^d	N	N	N	N	N	364	431	607	656	^R 754	^P 1,012
Ferry boat	N	N	N	N	ⁱ	ⁱ	286	260	256	349	^P 345
Other	N	N	N	N	390	439	124	273	348	^R 314	^P 397
Total^{R,e}	ⁱ4,197	ⁱ4,128	ⁱ4,592	ⁱ4,513	39,854	39,581	41,143	39,808	41,378	^R42,339	^P44,656
Rail											
Intercity/Amtrak ^{f,R}	17,064	13,260	6,179	3,931	4,503	4,825	6,057	5,545	5,050	5,166	5,304

KEY: N = data do not exist; P = preliminary; R = revised

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Table 1-31
Cont'd**U.S. Passenger-Miles (Millions)**

- ^a All operations other than those operating under 14 CFR 121 and 14 CFR 135.
- ^b U.S. Department of Transportation, Federal Highway Administration (FHWA), provides data separately for passenger car and motorcycle in its annual Highway Statistics series. However, the 1995 summary report provides updated data for passenger car and motorcycle combined. Passenger car figures in this table were computed by U.S. Department of Transportation, Bureau of Transportation Statistics by subtracting the most current motorcycle figures from the aggregate passenger car and motorcycle figures.
- ^c In July 1997, FHWA published revised passenger-miles data for the highway modes for a number of years. The major change reflected the reassignment of some vehicles from the passenger car category to the other 2-axle 4-tire vehicle category. Passenger-miles for passenger car, motorcycle, and other 2-axle 4-tire vehicles were derived by multiplying vehicle-miles for these vehicles by average vehicle occupancy rates, provided by the Nationwide Personal Transportation Survey, 1977, 1983, and 1995.
- ^d Motor bus and demand responsive figures are also included in the bus figure for highway.
- ^e Prior to 1985, excludes demand responsive and most rural and smaller systems funded via Sections 18 and 16(b)2, Federal Transit Act. The series is not continuous between 1980 and 1985. Transit rail modes are measured in car-miles. Car-miles measure individual vehicle-miles in a train. A 10-car train traveling 1 mile would equal 1 trainmile and 10 car-miles.
- ^f Amtrak began operations in 1971. Does not include contract commuter passengers.
- ^g Included in passenger car.
- ^h Included in other single-unit 2-axle 6-tire or more truck.
- ⁱ Ferry boat included in other.
- ^j Includes commuter rail figures only.

NOTES: Air carrier passenger-miles are computed by summing of the products of the aircraft-miles flown on each interairport segment multiplied by the number of passengers carried on that segment. Highway passenger-miles are calculated by multiplying vehicle-miles of travel as cited by FHWA by the average number of occupants for each vehicle type. Average vehicle occupancy rates are based on various sources, such as the Nationwide Personal Transportation Survey, conducted by the Federal Highway Administration, and the Truck Inventory and Use Survey, conducted by the Bureau of the Census. Transit passenger-miles are the cumulative sum of the distances ridden by each passenger. Rail passenger-miles represent the movement of 1 passenger for 1 mile.

SOURCES:**Air:**

Air carrier, domestic, all services: 1960: Civil Aeronautics Board, *Handbook of Airline Statistics 1969* (Washington, DC: 1970), part III, table 2.

1965-70: *Ibid.*, *Handbook of Airline Statistics 1973* (Washington, DC: 1974), part III, table 2.

1975-80: *Ibid.*, *Air Carrier Traffic Statistics* (Washington, DC: 1976, 1981), p. 4 (December 1976) and p. 2 (December 1981).

1985-98: U.S. Department of Transportation, Bureau of Transportation Statistics, Office of Airline Information, *Air Carrier Traffic Statistics* (Washington, DC: Annual December issues), page 2, line 1.

General aviation: 1960-97: Eno Transportation Foundation, Inc., *Transportation in America, 1998* (Washington, DC: 1998), p. 47.

Highway:

Passenger car and motorcycle: 1960-94: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics Summary to 1995* (updated June 1999), Internet site <http://www.fhwa.dot.gov/ohim/summary95/index.html>, as of July 28, 2000, table VM-201A.

1995-98: *Ibid.*, *Highway Statistics* (Washington, DC: Annual issues), table VM-1, sum of passenger car and motorcycle.

Motorcycle: 1970-80: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics, Summary to 1985* (Washington, DC: 1986), table VM-201A.

1985-98: *Ibid.*, *Highway Statistics* (Washington, DC: Annual issues), table VM-1.

Other 2-axle 4-tire vehicle: 1970-94: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics Summary to 1995* (updated June 1999), Internet site <http://www.fhwa.dot.gov/ohim/summary95/index.html>, as of July 28, 2000, table VM-201A.

1995-98: *Ibid.*, *Highway Statistics* (Washington, DC: Annual issues), table VM-1.

Single-unit 2-axle 6-tires or more truck, combination truck, and bus: 1960-94: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics Summary to 1995* (updated June 1999), Internet site <http://www.fhwa.dot.gov/ohim/summary95/index.html>, as of July 28, 2000, table VM-201A.

1995-98: *Ibid.*, *Highway Statistics* (Washington, DC: Annual issues), table VM-1.

Transit:

Ferry boat and other: 1992: American Public Transit Association, personal communication, July 19, 2000.

All other data: 1960-98: American Public Transit Association, *Transit Fact Book* (Washington, DC: 2000), table 30 and similar tables in earlier editions.

Rail, Intercity/Amtrak: 1960-80: Association of American Railroads, *Railroad Facts* (Washington, DC: Annual issues).

1985: Amtrak, *Amtrak FY95 Annual Report Statistical Appendix* (Washington, DC: 1996), p. 4.

1990-98: *Ibid.*, *Amtrak FY99 Annual Report Statistical Appendix* (Washington, DC: 2000), p. 43.

Table 1-32 Principal Means of Transportation to Work (Thousands)

	1985		1989		1993		1997		1999	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All workers	99,592	100.0	106,630	100.0	103,741	100.0	116,469	100.0	118,041	100
Automobile	86,148	86.5	93,943	88.1	91,301	88.0	101,907	87.5	103,466	87.7
Drives self	72,137	72.4	81,322	76.3	79,449	76.6	90,207	77.5	92,363	78.2
Carpool	14,011	14.1	12,621	11.8	11,852	11.4	11,700	10.0	11,103	9.4
2 person	10,381	10.4	9,708	9.1	9,105	8.8	9,294	8.0	8,705	7.4
3 person	2,024	2.0	1,748	1.6	1,684	1.6	1,526	1.3	1,454	1.2
4+ person	1,606	1.6	1,165	1.1	1,063	1.0	881	0.8	945	0.8
Public transportation ^a	5,091	5.1	4,880	4.6	4,740	4.6	5,337	4.6	5,779	4.9
Taxicab	129	0.1	152	0.1	117	0.1	139	0.1	144	0.1
Bicycle or motorcycle	958	1.0	795	0.7	744	0.7	738	0.6	749	0.6
Walks only	4,032	4.0	3,634	3.4	3,227	3.1	3,869	3.3	3,627	3.1
Other means ^b	286	0.3	491	0.5	474	0.5	867	0.7	987	0.8
Works at home	2,947	3.0	2,736	2.6	3,137	3.0	3,611	3.1	3,288	2.8

^a Public transportation refers to bus, streetcar, subway, or elevated trains.

^b Other means include ferryboats, surface trains, and van service.

NOTES: Principal means of transportation refers to the mode used most often, when different means of transportation were used on different days of the week, or the mode used for the longest distance during the trip to work, when more than one mode is used to get to work each day.

SOURCE: U.S. Department of Housing and Urban Development, *American Housing Survey* (Washington, DC: Various years).

Table 1-33

Long-Distance Travel in the United States by Selected Trip Characteristics: 1995
(Roundtrips of 100 miles or more, one way, U.S. destinations only)

	Household trips (thousands)		Person trips (thousands)		Person-miles (millions)		Personal-use vehicle trips (thousands)		Personal-use vehicle miles (millions)	
	Number	%	Number	%	Number	%	Number	%	Number	%
TOTAL	656,462	100.0	1,001,319	100.0	826,804	100.0	505,154	100.0	280,127	100.0
Principal means of transportation										
Personal-use vehicle	505,154	77.0	813,858	81.3	451,590	54.6	505,154	100.0	280,127	100.0
Airplane	129,164	19.7	161,165	16.1	355,286	43.0	NA	NA	NA	NA
Commercial airplane	124,884	19.0	155,936	15.6	347,933	42.1	NA	NA	NA	NA
Bus	17,340	2.6	20,445	2.0	13,309	1.6	NA	NA	NA	NA
Intercity	2,755	0.4	3,244	0.3	2,723	0.3	NA	NA	NA	NA
Charter or tour	11,890	1.8	14,247	1.4	9,363	1.1	NA	NA	NA	NA
Train	4,200	0.6	4,994	0.5	4,356	0.5	NA	NA	NA	NA
Ship, boat, or ferry	391	0.1	614	0.1	1,834	0.2	NA	NA	NA	NA
Other	213	—	243	—	429	0.1	NA	NA	NA	NA
Roundtrip distance										
Less than 300 miles	194,098	29.6	306,433	30.6	74,658	9.0	185,418	36.7	45,159	16.1
300-499 miles	174,389	26.6	274,045	27.4	106,007	12.8	159,743	31.6	61,779	22.1
500-999 miles	140,046	21.3	214,006	21.4	146,631	17.7	106,846	21.2	72,114	25.7
1,000-1,999 miles	76,110	11.6	108,331	10.8	153,316	18.5	36,722	7.3	49,952	17.8
2,000 miles or more	71,819	10.9	98,503	9.8	346,192	41.9	16,425	3.3	51,123	18.3
Mean (miles)	872	NA	826	NA	NA	NA	555	NA	NA	NA
Median (miles)	438	NA	425	NA	NA	NA	368	NA	NA	NA
Calendar quarter										
1st quarter	130,963	19.9	200,331	20.0	155,603	18.8	99,549	19.7	50,801	18.1
2nd quarter	168,669	25.7	258,400	25.8	208,256	25.2	130,135	25.8	72,421	25.9
3rd quarter	193,913	29.5	304,542	30.4	261,463	31.6	152,862	30.3	90,558	32.3
4th quarter	162,917	24.8	238,047	23.8	201,471	24.4	122,607	24.3	66,346	23.7

KEY: — = rounds to or represents zero; NA = not applicable

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Table 1-33
Cont'd

Long-Distance Travel in the United States by Selected Trip Characteristics: 1995
(Roundtrips of 100 miles or more, one way, U.S. destinations only)

	Household trips (thousands)		Person trips (thousands)		Person-miles (millions)		Personal-use vehicle trips (thousands)		Personal-use vehicle miles (millions)	
	Number	%	Number	%	Number	%	Number	%	Number	%
Main purpose of trip										
Business	192,537	29.3	224,835	22.5	212,189	25.7	125,036	24.8	61,929	22.1
Pleasure	372,586	56.8	630,110	62.9	506,971	61.3	305,571	60.5	177,698	63.4
Visit relatives or friends	195,468	29.8	330,755	33.0	264,769	32.0	159,981	31.7	92,190	32.9
Leisure ^a	177,119	27.0	299,355	29.9	242,201	29.3	145,590	28.8	85,508	30.5
Rest or relaxation	65,017	9.9	115,154	11.5	100,838	12.2	53,780	10.6	33,598	12.0
Sightseeing	24,272	3.7	42,649	4.3	50,781	6.1	18,069	3.6	14,654	5.2
Outdoor recreation	39,899	6.1	65,418	6.5	41,620	5.0	35,987	7.1	19,407	6.9
Entertainment	37,456	5.7	58,757	5.9	42,929	5.2	27,920	5.5	14,531	5.2
Personal business	91,319	13.9	146,338	14.6	107,621	13.0	74,532	14.8	40,490	14.5
Other	19	—	36	—	23	—	16	—	9	—
Vacation or weekend trips										
Vacation trip	301,197	45.9	515,383	51.5	484,144	58.6	236,055	46.7	154,167	55.0
Weekend trip	400,755	61.0	621,948	62.1	475,269	57.5	310,379	61.4	169,309	60.4
1 or 2 nights away from home	240,808	36.7	377,893	37.7	222,418	26.9	199,831	39.6	94,865	33.9
3-5 nights away from home	159,946	24.4	244,055	24.4	252,851	30.6	110,548	21.9	74,444	26.6
Travel party type										
One adult, no children under 18	386,479	58.9	386,510	38.6	352,350	42.6	275,034	54.4	144,795	51.7
Two or more adults, no children under 18	155,147	23.6	299,485	29.9	248,762	30.1	133,163	26.4	79,273	28.3
One adult, children under 18	29,436	4.5	67,959	6.8	48,083	5.8	24,879	4.9	13,827	4.9
Two or more adults, children under 18	66,086	10.1	225,875	22.6	158,334	19.2	60,497	12.0	34,759	12.4
No adult, one or more children under 18	19,313	2.9	21,489	2.1	19,275	2.3	11,581	2.3	7,473	2.7
Mean travel party size	1.6	NA	2.2	NA	NA	NA	1.7	NA	NA	NA

KEY: — = rounds to or represents zero; NA = not applicable

Continued next page

Table 1-33
Cont'd

Long-Distance Travel in the United States by Selected Trip Characteristics: 1995
(Roundtrips of 100 miles or more, one way, U.S. destinations only)

	Household trips (thousands)		Person trips (thousands)		Person-miles (millions)		Personal-use vehicle trips (thousands)		Personal-use vehicle miles (millions)	
	Number	%	Number	%	Number	%	Number	%	Number	%
Nights away from home										
None	164,032	25.0	239,727	23.9	104,444	12.6	140,914	27.9	49,619	17.7
1-3 nights	321,227	48.9	502,465	50.2	331,504	40.1	259,354	51.3	131,559	47.0
4-7 nights	121,279	18.5	184,766	18.5	243,546	29.5	76,380	15.1	61,318	21.9
8 or more nights	49,924	7.6	74,361	7.4	147,309	17.8	28,506	5.6	37,631	13.4
Mean, excluding none (nights)	4.4	NA	4.3	NA	NA	NA	4.0	NA	NA	NA
Type of lodging at destination										
Friend's or relative's home	211,832	43.6	345,506	45.9	290,428	41.0	170,271	47.3	103,180	45.7
Hotel, motel, or resort	201,264	41.4	282,929	37.6	318,323	44.9	126,160	35.1	82,447	36.5
Rented cabin, condo, or vacation home	20,205	4.2	38,572	5.1	26,269	3.7	18,103	5.0	9,819	4.3
Owned cabin, condo, or vacation home	17,607	3.6	30,648	4.1	31,161	4.4	14,631	4.1	10,809	4.8
Camper, trailer, recreational vehicle, tent	11,944	2.5	22,208	3.0	15,836	2.2	11,663	3.2	8,204	3.6
Other type of lodging	23,452	4.8	32,095	4.3	27,080	3.8	18,917	5.3	11,542	5.1
Nights at destination										
Mean nights at destination	4.20	NA	4.0	NA	NA	NA	3.8	NA	NA	NA
Friend's or relative's home	4.33	NA	4.0	NA	NA	NA	3.6	NA	NA	NA
Hotel, motel, or resort	3.05	NA	3.0	NA	NA	NA	2.8	NA	NA	NA

^a Includes other leisure purposes not shown separately.

NOTES: Numbers and percentages may not add to totals due to rounding. See glossary for definitions of categories.

SOURCE: U.S.

Department of Transportation, Bureau of Transportation Statistics, *1995 American Travel Survey Profile*, BTS/ATS95-US (Washington, DC: October 1997).

KEY: — = rounds to or represents zero; NA = not applicable

Table 1-34 Long-Distance Travel in the United States by Selected Traveler
 Characteristics: 1995 (Roundtrips of 100 miles or more, one way)

	Person trips (thousands)		Person-miles (millions)		Personal-use vehicle trips (thousands)		Personal-use vehicle miles (millions)	
	Number	%	Number	%	Number	%	Number	%
TOTAL all person trips	1,001,319	100	834,676	100	813,858	100	454,787	100
Age and sex								
Under 18 years	159,779	16.0	115,869	13.9	139,360	17.1	78,517	17.3
18-24 years	92,129	9.2	67,224	8.1	79,810	9.8	43,821	9.6
25-29 years	80,060	8.0	64,009	7.7	66,510	8.2	35,809	7.9
30-39 years	189,917	19.0	167,583	20.1	146,527	18.0	78,970	17.4
40-49 years	199,991	20.0	170,379	20.4	157,063	19.3	83,046	18.3
50-59 years	137,841	13.8	118,433	14.2	110,208	13.5	61,856	13.6
60-64 years	48,683	4.9	43,574	5.2	40,647	5.0	25,258	5.6
65 years and over	92,919	9.3	87,603	10.5	73,733	9.1	47,512	10.4
Total	1,001,319	100	834,676	100	813,858	100	454,787	100
Median (years)	38				38			
Female								
Under 18 years	79,580	7.9	58,716	7.0	68,650	8.4	39,122	8.6
18-24 years	42,743	4.3	32,706	3.9	36,161	4.4	19,702	4.3
25-29 years	36,422	3.6	29,473	3.5	29,986	3.7	16,077	3.5
30-39 years	82,471	8.2	70,360	8.4	65,056	8.0	34,606	7.6
40-49 years	84,135	8.4	70,696	8.5	67,855	8.3	36,039	7.9
50-59 years	59,721	6.0	50,449	6.0	48,867	6.0	27,483	6.0
60-64 years	21,310	2.1	19,576	2.3	17,217	2.1	10,942	2.4
65 years and over	44,129	4.4	41,278	4.9	33,409	4.1	20,513	4.5
Total	450,512	45.0	373,254	44.7	367,203	45.1	204,485	45.0
Median (years)	37				37			
Race								
White	891,443	89.0	739,444	88.6	726,632	89.3	403,045	88.6
Black	59,923	6.0	44,935	5.4	49,175	6.0	28,115	6.2
Asian or Pacific Islander	22,922	2.3	28,690	3.4	15,954	2.0	10,570	2.3
American Indian, Eskimo, or Aleutian	10,707	1.1	8,103	1.0	8,807	1.1	5,233	1.2
Other	16,324	1.6	13,504	1.6	13,290	1.6	7,825	1.7
Total	1,001,319	100	834,676	100	813,858	100	454,788	100
Ethnicity								
(Hispanic origin)	52,822	5.3	38,177	4.6	44,219	5.4	23,183	5.1
(Not of Hispanic origin)	948,497	94.7	796,499	95.4	769,640	94.6	431,605	94.9
Total	1,001,319	100	834,676	100	813,858	100	454,788	100

Continued next page

Table 1-34
Cont'd**Long-Distance Travel in the United States by Selected Traveler**
Characteristics: 1995 (Roundtrips of 100 miles or more, one way)

	Person trips (thousands)		Person-miles (millions)		Personal-use vehicle trips (thousands)		Personal-use vehicle miles (millions)	
	Number	%	Number	%	Number	%	Number	%
Household income								
Less than \$25,000	155,555	15.5	112,236	13.4	131,901	16.2	71,556	15.7
\$25,000-\$39,999	200,981	20.1	148,185	17.8	175,186	21.5	98,074	21.6
\$40,000-\$49,999	166,699	16.6	125,296	15.0	144,160	17.7	78,294	17.2
\$50,000-\$59,999	143,946	14.4	118,691	14.2	117,579	14.4	66,363	14.6
\$60,000-\$74,999	134,348	13.4	118,169	14.2	106,083	13.0	61,169	13.5
\$75,000-\$99,999	104,698	10.5	102,112	12.2	79,397	9.8	45,406	10.0
\$100,000 or more	95,092	9.5	109,987	13.2	59,553	7.3	33,925	7.5
Household type								
Family household	840,438	83.9	693,794	83.1	692,146	85.0	388,534	85.4
Married-couple household	726,982	72.6	606,630	72.7	597,863	73.5	335,980	73.9
With children under 18 years	379,139	37.9	302,958	36.3	313,451	38.5	172,014	37.8
Female householder	76,942	7.7	60,665	7.3	62,583	7.7	35,023	7.7
With children under 18 years	43,389	4.3	31,963	3.8	35,986	4.4	19,421	4.3
Male householder	36,515	3.6	26,499	3.2	31,700	3.9	17,531	3.9
With children under 18 years	13,226	1.3	9,845	1.2	11,207	1.4	6,583	1.4
Nonfamily household	160,881	16.1	140,881	16.9	121,712	15.0	66,254	14.6
Educational attainment (Persons 16 years and over)								
Less than high school graduate	68,338	7.9	48,533	6.6	59,159	8.6	33,428	8.7
High school graduate	219,549	25.5	165,361	22.6	187,762	27.2	105,957	27.6
Some college, no degree	182,146	21.2	146,379	20.0	153,399	22.3	86,304	22.5
Associate's degree	58,431	6.8	46,401	6.3	49,081	7.1	26,264	6.8
Bachelor's degree	193,651	22.5	181,233	24.8	145,438	21.1	79,779	20.8
Some grad school or grad degree	137,513	16.0	144,155	19.7	94,221	13.7	52,678	13.7
Total	859,629	100	732,062	100	689,060	100	384,409	100
Activity status (Persons 16 years and over)								
Working full time	547,232	63.7	470,855	64.3	428,319	62.2	228,969	59.6
Retired	95,039	11.1	88,837	12.1	77,921	11.3	52,589	13.7
Other	217,357	25.3	172,371	23.5	182,820	26.5	102,851	26.8
Total	859,629	100	732,062	100	689,060	100	384,409	100

NOTE: This table excludes travel outside the United States.
Numbers and percents may not add to totals due to rounding.

SOURCE: U.S. Department of Transportation, Bureau of
Transportation Statistics, 1995 American Travel Survey data.

Table 1-35

U.S. Air Carrier Aircraft Departures, Enplaned Revenue Passengers, and Enplaned Revenue Tons

	1975	1980	1985	1990	1995	1996	1997	1998
AIRCRAFT DEPARTURES								
Total performed	4,555,516	5,156,848	5,505,659	6,641,681	8,030,530	8,204,674	8,095,888	8,248,269
Total scheduled	4,530,535	5,204,564	5,591,596	6,758,571	7,920,467	8,064,653	7,907,554	8,094,020
Large Hubs								
Performed	2,437,958	2,887,239	3,439,446	4,167,868	5,162,534	5,257,541	5,266,560	5,416,158
Scheduled	2,409,874	2,905,923	3,487,660	4,237,466	5,147,875	5,243,646	5,219,161	5,405,728
Medium Hubs								
Performed	902,652	1,048,726	1,185,008	1,394,833	1,439,639	1,425,280	1,430,537	1,429,730
Scheduled	899,543	1,058,438	1,201,540	1,417,762	1,387,833	1,356,162	1,352,944	1,345,197
Small Hubs								
Performed	640,589	598,559	514,176	669,450	738,231	754,914	695,841	714,920
Scheduled	644,133	608,738	524,048	679,103	711,947	722,170	660,685	674,812
Nonhubs								
Performed	574,317	622,324	367,029	409,530	690,126	766,939	702,950	687,461
Scheduled	576,985	631,465	378,348	424,240	672,812	742,675	674,764	668,283
ENPLANED REVENUE								
PASSENGERS^a								
Large Hubs	133,975,900	197,679,376	264,507,144	317,595,099	392,601,890	417,339,694	426,246,423	442,402,443
Medium Hubs	36,539,613	51,664,627	65,770,376	80,466,373	85,929,285	89,018,764	90,779,705	91,755,793
Small Hubs	19,406,607	23,393,324	24,240,726	30,771,383	33,561,098	37,122,974	36,298,979	37,675,305
Nonhubs	6,860,024	8,671,525	8,823,251	9,711,146	13,963,210	14,702,309	15,290,580	16,501,777
ENPLANED REVENUE								
TONS^b								
Freight								
Large Hubs	2,265,664.95	3,008,311.25	2,047,988.46	3,001,216.68	4,402,326.87	4,653,189.06	5,691,362.80	6,208,629.28
Medium Hubs	358,043.56	414,324.74	469,057.09	1,446,744.12	1,950,317.96	2,169,411.17	3,855,449.23	3,897,241.73
Small Hubs	99,132.62	73,795.49	48,126.59	191,357.90	541,061.90	755,232.44	963,093.25	1,019,615.11
Nonhubs	41,922.32	65,755.91	35,854.90	93,407.35	310,772.09	469,962.24	653,542.47	659,027.77
Total Freight	2,764,763.45	3,562,187.39	2,601,027.04	4,732,726.05	7,204,478.82	8,047,794.91	11,163,447.75	11,784,513.89
Mail								
Large Hubs	677,179.12	1,091,059.45	1,082,566.55	1,146,589.25	1,546,567.80	1,630,444.73	1,699,154.46	1,662,642.74
Medium Hubs	151,498.13	255,929.13	268,179.14	292,898.69	442,814.10	466,583.26	473,576.72	482,710.49
Small Hubs	48,486.07	148,115.76	59,916.57	108,655.74	136,007.69	157,137.07	138,817.86	127,747.78
Nonhubs	19,134.42	31,020.96	12,780.74	17,954.39	35,148.83	31,338.10	45,231.57	26,153.61
Total Mail	896,297.74	1,526,125.30	1,423,443.00	1,566,098.07	2,160,538.42	2,285,503.16	2,356,780.61	2,299,254.62

Continued next page

^a The number of persons receiving air transportation from an air carrier for which remuneration is received by the carrier, excluding persons receiving reduced rate charges, such as air carrier employees, infants, and others (except ministers of religion, elderly individuals, and handicapped individuals).

^b The number of short tons of freight transported by an air carrier aboard an aircraft.

NOTES: Data are for all scheduled and nonscheduled service by large certificated U.S. air carriers at all airports served within the 50 states, the District of Columbia, and other U.S. areas designated by the Federal Aviation Administration. Not all scheduled service is actually performed; however, because nonscheduled service is counted, the performed service than scheduled service for some years. Prior to 1993, all scheduled and some nonscheduled enplanements for certificated air carriers were included; no enplanements were included for air carriers offering charter service only. Prior to 1990, Freight includes both freight and express shipments and Mail includes priority and nonpriority U.S. mail and foreign mail; beginning in 1990 only aggregate numbers are reported. Large certificated air carriers hold Certificates of Public Convenience and Necessity issued by the U.S. Department of Transportation authorizing the performance of air transportation. Large certificated air carriers operate aircraft with seating capacity of more than 60 seats or a maximum payload capacity of more than 18,000 pounds. Data for commuter, intrastate,

and foreign-flag air carriers are not included. Air traffic hubs are designated as geographical areas based on the percentage of total passengers enplaned in the area. A hub may have more than one airport in it. This definition of hub should not be confused with the definition being used by the airlines in describing their "hub-and-spoke" route structures. Individual communities fall into four hub classifications as determined by each community's percentage of the total enplaned revenue passengers in all services and all operations of U.S. certificated route carriers within the 50 states, the District of Columbia, and other U.S. areas. Classifications are based on the percentage of total enplaned revenue passengers for each year according to the following: one percent or more - large, 0.25 to 0.9999 percent - medium, 0.05 to 0.249 percent - small, less than 0.05 - nonhub.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, Office of Airline Information, *Airport Activity Statistics of Certified Route Air Carriers* (Washington, DC: Annual issues), tables 2-5.

Table 1-36 Passengers Boarded at the Top 50 U.S. Airports^a

	Rank	1999 total enplaned passengers	Rank	1989 total enplaned passengers	% change 1989-99
Atlanta, GA (William B Hartsfield)	1	37,223,698	3	20,397,697	82
Chicago, IL (O'Hare Intl.)	2	31,656,550	1	25,664,266	23
Dallas/Ft.Worth, TX (Dallas/Ft.Worth Intl.)	3	27,592,733	2	22,623,065	22
Los Angeles, CA (Los Angeles Intl.)	4	24,024,215	4	18,583,292	29
Denver, CO (Denver Intl.)	5	17,492,801	6	12,320,246	42
Detroit, MI (Wayne County)	6	16,564,799	11	9,739,265	70
San Francisco, CA (San Francisco Intl.)	7	16,540,786	5	13,326,085	24
Phoenix, AZ (Phoenix Sky Harbor Intl.)	8	16,082,657	8	10,166,095	58
Minneapolis, MN (Minneapolis-St. Paul Intl.)	9	15,390,488	16	8,460,115	82
Las Vegas, NV (McCarran Intl.)	10	15,361,009	21	7,026,900	119
St Louis, MO (Lambert-St. Louis Muni)	11	14,929,506	13	9,396,335	59
Newark, NJ	12	14,904,697	10	9,822,419	52
Houston, TX (Houston International)	13	14,734,821	20	7,030,001	110
Seattle, WA (Seattle-Tacoma Intl.)	14	13,062,413	19	7,059,777	85
Miami, FL (Miami Intl.)	15	12,721,257	15	8,591,936	48
Orlando, FL (Orlando Intl.)	16	12,539,071	18	7,373,449	70
Boston, MA (Logan Intl.)	17	11,078,408	12	9,661,258	15
New York, NY (LaGuardia)	18	10,780,340	7	12,320,246	-12
Philadelphia, PA	19	10,341,666	24	6,247,489	66
New York, NY (JFK)	20	10,138,272	9	10,081,490	1
Charlotte, NC (Douglas Muni)	21	9,442,197	22	6,903,482	37
Salt Lake City, UT	22	8,715,175	26	5,244,238	66
Honolulu, Hawaii	23	8,013,533	14	8,943,521	-10
Pittsburgh, PA	24	8,013,533	17	7,940,962	1
Baltimore, MD	25	8,002,750	28	4,446,139	80
Cincinnati, OH	26	7,610,889	34	3,770,623	102
San Diego, CA (Intl.-Lindbergh)	27	7,248,022	25	5,317,177	36
Tampa, FL	28	6,912,195	29	4,409,261	57
Washington, DC (Dulles Intl.)	29	6,830,051	27	4,543,530	50
Washington, DC (Reagan National)	30	6,656,776	23	6,895,563	-3
Portland, OR	31	6,510,393	42	3,054,925	113
Miami/Ft. Lauderdale	32	6,223,731	37	3,645,786	71
Chicago, IL (Midway)	33	6,137,747	38	3,409,726	80
Cleveland, OH (Hopkins Intl.)	34	5,921,396	36	3,722,208	59
Kansas City, MO	35	5,601,189	30	4,356,991	29
San Jose, CA (San Jose Muni)	36	5,486,390	41	3,093,643	77
Oakland, CA (Oakland Metropolitan Intl.)	37	4,737,711	53	2,030,847	133
New Orleans, LA	38	5,468,799	40	3,170,967	72
San Juan, PR (Luis Munoz Marin Intl.)	39	4,531,970	39	3,268,644	39
Memphis, TN	40	4,523,926	32	3,989,814	13
Houston, TX (William P. Hobby)	41	4,214,715	33	3,927,329	7
Nashville, TN	42	4,062,749	35	3,746,367	8
Raleigh, NC (Raleigh-Durham)	43	4,025,045	31	4,116,520	-2

Continued next page

Table 1-36
Cont'd**Passengers Boarded at the Top 50 U.S. Airports^a**

	Rank	1999 total enplaned passengers	Rank	1989 total enplaned passengers	% change 1989-99
Sacramento, CA	44	3,658,043	56	1,800,078	103
Los Angeles, CA (Orange County)	45	3,642,214	50	2,173,502	68
Indianapolis, IN	46	3,539,375	44	2,522,944	40
Dallas, TX (Love Field)	47	3,414,265	43	2,773,836	23
San Antonio, TX	48	3,340,285	46	2,493,393	34
Austin, TX (Robert Muller Muni)	49	3,291,848	54	2,022,269	63
Columbus, OH (Port Columbus Intl.)	50	3,120,242	58	1,662,389	88
Top 50 Airports		512,057,341		351,910,836	
All Airports		611,299,415		455,263,066	

^a Rank order by total enplaned passengers on large certificated U.S. air carriers, scheduled and nonscheduled operations, at all airports served within the 50 states, the District of Columbia, and other U.S. areas designated by the Federal Aviation Administration. Prior to 1993, all scheduled and some nonscheduled enplanements for certificated air carriers were included; no enplanements were included for air carriers offering charter service only.

Large certificated air carriers hold Certificates of Public Convenience and Necessity issued by the U.S. Department of Transportation authorizing the performance of air transportation. Large certificated air carriers operate aircraft with seating capacity of more than 60 seats or a maximum payload capacity of more than 18,000 pounds. Data for commuter, intrastate, and foreign-flag air carriers are not included.

NOTES: In 1989, Ontario, CA ranked 45th (2,608,588); West Palm Beach, FL ranked 47th (2,403,585); Albuquerque, NM ranked 48th (2,336,577); and Hartford, CT ranked 49th (2,269,982).

SOURCES:

All airports, total enplaned passengers: 1989: U.S. Department of Transportation, Federal Aviation Administration and Research and Special Programs Administration, *Airport Activity Statistics of Certificated Route Air Carriers, 12 Months Ending December 31, 1989* (Washington, DC: 1989), table 1.

1999: U.S. Department of Transportation, Bureau of Transportation Statistics, Office of Airline Information, *Airport Activity Statistics of Certificated Air Carriers: Summary Tables, Twelve Months Ending December 31, 1999* (Washington, DC), table 1.

Airport ranking: 1989: U.S. Department of Transportation, Federal Aviation Administration, *FAA Statistical Handbook, Calendar Year 1989* (Washington, DC: 1989), table 4.11.

1999: U.S. Department of Transportation, Bureau of Transportation Statistics, Office of Airline Information, *Airport Activity Statistics of Certificated Air Carriers: Summary Tables, Twelve Months Ending December 31, 1999* (Washington, DC), tables 3-4.

Table 1-37**Air Passenger Travel Arrivals in the United States from Selected Foreign Countries (Thousands)**

	1975	1980	1985	1990	1995	1996	1997	1998
Flag of carrier								
United States	6,502	10,031	11,798	19,145	24,582	25,148	26,744	27,390
Foreign	6,144	10,231	12,357	17,269	22,328	24,704	27,571	28,791
Total arriving passengers	12,646	20,262	24,156	36,414	46,910	49,853	54,315	56,181
Country of embarkation^a								
Australia	106	227	277	495	581	622	618	613
Bahama Islands	758	1,123	1,503	1,679	1,433	1,487	1,530	1,396
Barbados	76	135	216	228	222	212	203	195
Belgium	144	242	281	417	379	407	589	715
Bermuda	398	497	434	487	426	363	425	407
Brazil	212	300	352	584	1,112	1,176	1,388	1,377
Canada ^b	N	N	N	6,870	7,417	8,501	8,895	9,333
China/Taiwan	50	113	206	325	972	1,017	1,068	1,080
Colombia	173	315	279	286	481	499	586	606
Denmark	222	267	241	313	221	236	252	225
Dominican Republic	336	468	606	948	1,136	1,168	1,168	1,251
France	512	689	955	1,777	2,045	2,178	2,323	2,523
Germany	622	1,175	1,582	2,466	3,125	3,173	3,545	3,558
Grand Cayman	25	121	173	273	314	323	328	370
Greece	121	208	187	132	220	235	186	192
Haiti	91	133	192	233	314	303	289	293
Hong Kong	98	228	270	356	658	668	589	592
Ireland	220	220	274	448	642	721	716	775
Israel	84	189	294	204	412	483	482	502
Italy	431	537	662	792	1,007	1,047	1,097	1,078
Jamaica	457	429	707	975	1,124	1,136	1,162	1,219
Japan	1,095	1,624	2,435	4,528	5,676	6,349	6,736	6,630
Korea, Republic of	105	234	390	826	1,335	1,514	1,625	1,184
Mexico	1,626	2,886	2,719	4,313	4,884	5,591	6,124	6,318
Netherlands	312	427	583	837	1,580	1,774	2,074	2,213
Netherland Antilles	213	327	407	388	339	305	368	382
Panama Republic	97	150	180	153	225	229	227	267
Philippines	108	194	145	246	397	379	410	275
Spain	306	312	419	558	604	618	675	732
Switzerland	236	312	452	616	733	790	910	1,068
United Kingdom	1,549	2,973	3,460	5,166	6,648	7,131	7,935	8,640
Venezuela	205	533	248	458	786	659	709	810
Total	10,988	17,588	21,129	38,377	47,448	51,294	55,232	56,819

^a Country where passenger boarded a direct flight to the United States.

^b Canadian figure represents number of revenue passengers on scheduled commercial and charter flights. Does not include foreign (non-Canadian, non-U.S.) scheduled carriers.

NOTES: Includes passengers on international commercial flights arriving at U.S. airports and travelers between U.S. airports in the 50 states, Puerto Rico, Guam, or the Virgin Islands, and other U.S. territories. Data compiled from flight reports required by the U.S. Immigration and Naturalization Service. Table includes a selected sample of countries of embarkation for passengers arriving in the United States. Because two different data sources are used, the total number of departing passengers may be less than the total for "country of embarkation" listed here.

SOURCES: 1975-90: U.S.

Department of Transportation, Research and Special Programs Administration, Volpe National Transportation Systems Center, *U.S. International Air Travel Statistics* (Cambridge, MA: Annual issues), table IIa.

1995: U.S. Department of Commerce, International Trade Administration, *U.S. International Air Passenger Statistics Report, Calendar Year 1995* (Washington, DC: 1996), table IIa.

1996-98: Ibid., *U.S. International Air Travel Statistics Report* (Washington, DC: Annual issues), table IIa. Canada: Statistics Canada, *Air Carrier Traffic at Canadian Airports* (Canada: Annual issues) and personal communication, March 28, 2000.

KEY: N = data do not exist

Table 1-38 Air Passenger Travel Departures from the United States to Selected Foreign Countries (Thousands)

	1975	1980	1985	1990	1995	1996	1997	1998
Flag of carrier								
United States	5,912	9,369	10,696	17,628	22,231	22,901	24,302	24,513
Foreign	6,141	9,886	11,791	16,418	20,795	22,884	25,382	26,350
Total departing passengers	12,053	19,256	22,487	34,046	43,026	45,785	49,684	50,863
Country of debarkation^a								
Australia	103	245	232	540	560	614	606	607
Bahama Islands	704	1,006	1,151	1,279	1,024	994	983	955
Barbados	74	126	204	230	217	210	200	196
Belgium	134	231	249	395	340	380	513	622
Bermuda	372	467	389	277	199	196	215	207
Brazil	206	291	322	560	1,024	1,135	1,292	1,297
Canada ^b	N	N	N	6,870	7,405	8,477	8,890	9,381
China/Taiwan	41	90	187	337	891	945	939	934
Colombia	171	299	294	277	461	467	567	588
Denmark	188	254	254	307	229	227	259	217
Dominican Republic	322	443	528	896	995	1,057	1,070	1,108
France	470	635	894	1,626	1,868	2,021	2,147	2,289
Germany	649	1,178	1,539	2,339	2,883	2,978	3,178	3,210
Grand Cayman	26	112	161	250	264	285	290	305
Greece	123	190	210	129	194	206	192	181
Haiti	81	124	169	201	292	288	284	295
Hong Kong	59	152	238	310	640	651	610	621
Ireland	163	212	233	311	409	449	488	554
Israel	105	186	255	259	426	492	499	488
Italy	409	495	660	731	955	1,006	1,055	1,041
Jamaica	416	382	607	888	987	988	1,018	1,018
Japan	1,183	1,602	2,255	4,471	5,452	6,187	6,796	6,487
Korea, Republic of	60	186	333	723	1,252	1,382	1,461	1,032
Mexico	1,525	2,886	2,671	4,136	4,568	5,133	5,613	5,771
Netherlands	304	409	562	777	1,444	1,636	1,920	1,933
Netherlands Antilles	184	282	395	377	295	288	319	340
Panama Republic	100	142	209	183	214	221	240	272
Philippines	81	160	165	195	281	275	306	218
Spain	260	273	397	540	573	577	615	669
Switzerland	224	306	434	600	712	760	811	906
United Kingdom	1,446	2,840	3,322	4,903	6,372	6,693	7,475	8,143
Venezuela	198	518	245	444	778	644	698	782
Total	10,381	16,722	19,764	36,361	44,204	47,862	51,549	52,667

^a Country where passenger deboarded a direct flight from the United States.

^b Canadian figure represents number of revenue passengers on scheduled commercial and charter flights. Does not include foreign (non-Canadian, non-U.S.) scheduled carriers.

NOTES: Includes passengers on international commercial flights departing U.S. airports, and Travelers between U.S. ports in the 50 states, Puerto Rico, Guam, or the Virgin Islands, and other U.S. territories. Data compiled from flight reports required by the U.S. Immigration and Naturalization Service. Table includes a selected sample of countries of debarkation for passengers boarding in the United States. Because two different data sources are used, the total number of departing passengers may be less than the total for "country of debarkation" listed here.

SOURCES: 1975-94: U.S.

Department of Transportation, Research and Special Programs Administration, Volpe National Transportation Systems Center, *U.S. International Air Travel Statistics* (Cambridge, MA: Annual issues), table IId.

1995: U.S. Department of Commerce, International Trade Administration, *U.S. International Air Passenger Statistics Report, Calendar Year 1995* (Washington, DC: 1996), table IId.

1996-98: *Ibid.*, *U.S. International Air Travel Statistics Report* (Washington, DC: Annual issues), table IId. Canada: Statistics Canada, *Air Carrier Traffic at Canadian Airports* (Canada: Annual issues) and personal communication, March 28, 2000.

KEY: N = data do not exist

**Table 1-39 U.S.-Canadian Border Land-
Passenger Gateways: 1999**

	Entering the U.S.
All U.S.-Canadian Land Gateways	
All personal vehicles	34,519,136
All personal vehicle passengers	87,691,325
All buses	181,581
All bus passengers	4,805,421
All train passengers	183,728
All pedestrians	586,765
Personal vehicles – top 5 gateways	
Detroit, MI	8,919,145
Buffalo-Niagara Falls, NY	7,441,950
Blaine, WA	3,312,775
Port Huron, MI	2,150,304
Calias, ME	1,427,853
Personal vehicle passengers – top 5 gateways	
Detroit, MI	19,382,235
Buffalo-Niagara Falls, NY	16,531,915
Blaine, WA	8,442,615
Sault Ste. Marie, MI	5,765,704
Port Huron, MI	4,308,549
Buses – top 5 gateways	
Buffalo-Niagara Falls, NY	61,507
Detroit, MI	39,455
Blaine, WA	20,478
Champlain-Rouses Point, NY	9,570
Skagway, AK	8,996
Bus passengers – top 5 gateways	
Buffalo-Niagara Falls, NY	1,795,942
Detroit, MI	624,974
Blaine, WA	469,659
Champlain-Rouses Point, NY	281,021
Skagway, AK	137,717
Train passengers – top 5 gateways	
Buffalo-Niagara Falls, NY	35,305
Blaine, WA	31,496
Port Huron, MI	28,795
Skagway, AK	28,166
Champlain-Rouses Point, NY	25,618

Continued next column

	Entering the U.S.
Pedestrians – top 5 gateways	
Buffalo-Niagara Falls, NY	305,775
Calais, ME	51,003
Sumas, WA	35,941
Portland, ME ^a	29,883
International Falls-Ranier, MN	24,733

^a Gateway is a pedestrian/ferry combination crossing.

NOTE: Data reflect all personal vehicles, buses, passengers and pedestrians entering the United States across the U.S.-Canadian border, regardless of nationality.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, special tabulation, August 2000. Based on the following primary data source: U.S. Department of Treasury, U.S. Customs Service. Office of Field Operations. Operations Management Database. (Washington, DC: 1999).

**Table 1-40 U.S.-Mexican Border Land-
Passenger Gateways: 1999**

Entering the U.S.		Entering the U.S.	
All U.S.-Mexican Land Gateways		Pedestrians – top 5 gateways	
All personal vehicles	89,638,656	Calexico, CA	8,099,253
All personal vehicle passengers	242,613,249	San Ysidro, CA	7,558,174
All buses	295,429	Laredo, TX	6,674,293
All bus passengers	3,495,414	El Paso, TX	5,666,477
All train passengers	16,535	Nogales, AZ	4,806,076
All pedestrians	48,186,155		
Personal vehicles – top 5 gateways		NOTE: Data reflect all personal vehicles, buses, passengers and pedestrians entering the United States across the U.S.-Mexican border, regardless of nationality.	
El Paso, TX	16,001,926	SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, special tabulation, August 2000. Based on the following primary data source: U.S. Department of Treasury, U.S. Customs Service. Office of Field Operations. Operations Management Database. (Washington, DC: 1999).	
San Ysidro, CA	15,269,561		
Hildago, TX	8,319,581		
Brownsville, TX	7,579,231		
Laredo, TX	6,894,982		
Personal vehicle passengers – top 5 gateways			
El Paso, TX	46,397,134		
San Ysidro, CA	33,593,034		
Hildago, TX	29,118,835		
Calexico, CA	20,372,381		
Brownsville, TX	18,948,078		
Buses – top 5 gateways			
San Ysidro, CA	108,025		
Hildalgo, TX	61,550		
Otay Mesa, CA	46,142		
Laredo, TX	31,371		
Brownsville, TX	12,702		
Bus passengers – top 5 gateways			
Hildago, TX	1,384,270		
San Ysidro, CA	854,098		
Laredo, TX	379,425		
Otay Mesa, CA	312,342		
Brownsville, TX	145,298		
Train passengers – top 5 gateways			
Tecate, CA	7,392		
Eagle Pass, TX	5,756		
Calexico East, CA	1,743		
Nogales, AZ	900		
San Ysidro, CA	384		

Continued next column

Table 1-41 U.S. Ton-Miles of Freight (Millions)

	1960	1965	1970	1975	1980	1985	1990	1995	1996	1997	1998
Air carrier, domestic, all services^a	553	1,353	2,709	3,470	4,528	5,156	9,064	12,520	12,861	13,601	13,756
Intercity truck	285,000	359,000	412,000	454,000	555,000	610,000	735,000	921,000	972,000	^R 996,000	1,027,000
Class I rail^b	572,309	697,878	764,809	754,252	918,958	876,984	1,033,969	1,305,688	1,355,975	1,348,926	1,376,802
Domestic water transportation											
Coastwise	U	302,546	359,784	315,846	^d 631,149	610,977	479,134	440,345	408,086	349,843	314,864
Lakewise	U	75,918	79,416	68,517	61,747	48,184	60,930	59,704	58,335	62,166	61,654
Internal	U	109,701	155,816	180,399	227,343	232,708	292,393	306,329	296,791	294,023	294,896
Intraport	U	1,638	1,179	1,222	1,596	1,102	1,087	1,350	1,475	1,378	1,381
Total domestic water transportation^c	U	489,803	596,195	565,984	921,835	892,970	833,544	807,728	764,687	707,410	672,795
Oil pipeline	229,000	306,000	431,000	507,000	588,200	564,300	584,100	601,100	619,200	616,500	619,800
TOTAL	1,562,000	1,854,000	2,207,000	2,285,000	^R 2,989,000	2,949,000	3,196,000	3,648,000	3,725,000	^R 3,682,000	3,710,000

KEY: R = revised; U = data are not available

^a Includes freight, express, and mail revenue ton-miles as reported on U.S. DOT Form 41.^b Revenue ton-miles.^c Excludes intraterritorial traffic, for which ton-miles were not compiled.^d Reflects startup between 1975 and 1980 of Alaska pipeline and consequent water transportation of crude petroleum from Alaskan ports to mainland United States for refining.**NOTE:** Domestic water transportation numbers may not add to totals due to rounding.**SOURCES:****Air carrier, domestic, all services:** 1960-65: Civil Aeronautics Board, *Handbook of Airline Statistics, 1969* (Washington, DC: 1970).1970-80: Ibid., *Air Carrier Traffic Statistics* (Washington, DC: Annual issues), p. 2, line 3.1985-98: U.S. Department of Transportation, Bureau of Transportation Statistics, Office of Airline Information, *Air Carrier Traffic Statistics* (Washington, DC: Annual issues), p. 2, line 3.**Intercity truck:** 1960-98: EnoTransportation Foundation, Inc., *Transportation in America, 1998* (Washington, DC: 1999), p. 44.**Class I rail:** 1960-98: Association of American Railroads, *Railroad Facts* (Washington, DC: 1999), p. 27.**Domestic water transportation:** 1965-98: U.S. Army Corps of Engineers, *Waterborne Commerce of the U.S.* (New Orleans, LA: Annual issues), part 5, section 1, table 1-4, and similar tables in earlier editions.**Oil pipeline:** 1960-70: Eno Transportation Foundation, Inc., *Transportation in America, 1998* (Washington, DC: 1998), p. 44.1975: Association of Oil Pipe Lines, *Shifts in Petroleum Transportation* (Washington, DC: Annual issues), table 4.1980-98: Ibid., *Shifts in Petroleum Transportation* (Washington, DC: Annual issues), table 1.

Table 1-42 Average Length of Haul, Domestic Freight and Passenger Modes (Miles)

	1960	1965	1970	1975	1980	1985	1990	1995	1996	1997	1998
Freight											
Air carrier	953	943	1,014	1,082	1,052	1,157	1,389	^R 1,069	^R 1,075	903	890
Truck ^a	272	259	263	286	363	366	391	416	^R 426	435	444
Class I rail	461	503	515	541	616	665	726	843	842	851	835
Water											
Coastwise	1,496	1,501	1,509	1,362	1,915	1,972	1,604	1,652	1,526	1,330	1,261
Lakewise	522	494	506	530	536	524	553	514	508	^R 507	505
Internal	282	297	330	358	405	435	^R 470	494	477	^R 466	472
Intraport	U	U	U	16	17	15	13	16	17	15	15
Oil pipeline											
Crude	325	320	300	633	871	777	805	^R 747	^R 779	713	689
Petroleum products	269	335	357	516	414	391	389	^R 393	^R 393	393	393
Passenger											
Air carrier, domestic, scheduled	583	614	678	698	736	758	803	791	802	^R 817	813
Bus, intercity	79	94	106	113	125	121	141	140	143	144	144
Commuter rail	21	21	22	23	23	24	22	^R 24	24	23	U
Amtrak ^b	N	N	N	236	216	231	273	268	257	256	252

^a Total Class I and Class II motor carriers of freight (less-than-truckload, specialized carrier for truckload, and others).

^b Amtrak began operations in 1971. Data are reported for fiscal years.

NOTES: Average length of haul for freight is calculated by dividing ton-miles in the previous table by estimates of tonnage from the various data sources. The calculation of average length of haul for passenger trips varies by mode: for air carrier it is calculated by dividing revenue passenger-miles by revenue passenger enplanements; for commuter rail, intercity bus, and Amtrak it is calculated by dividing passenger-miles by number of passengers.

SOURCES:

Freight:

Air carrier, truck: Eno Transportation Foundation, Inc., *Transportation In America, 1999* (Washington, DC: 1999), p. 71.

Class I rail: Association of American Railroads, *Railroad Facts* (Washington, DC: 1999), p. 36.

Water: U.S. Army Corps of Engineers, *Waterborne Commerce of the United States, Part 5* (New Orleans, LA: Annual issues), section 1, Table 1-4.

KEY: N = data do not exist; R = revised;
U = data are not available

Oil pipeline: 1960-70: Transportation Policy Associates, Washington, DC, personal communication.

1975-98: Eno Transportation Foundation, Inc., *Transportation in America, 1999* (Washington, DC: 1999), p. 71.

Passenger:

Air carrier: U.S. Department of Transportation, Bureau of Transportation Statistics, Office of Airline Information, *Air Carrier Traffic Statistics* (Washington, DC: Annual issues).

Intercity bus and commuter rail: Eno Transportation Foundation, Inc., *Transportation in America, 1999* (Washington, DC: 1999), p. 70.

Amtrak: 1970-85: Amtrak, corporate communication, Jan. 26, 1999.
1990-98: Amtrak, *Amtrak Annual Report* (Washington, DC: 1999), Statistical Appendix, p. III.

Table 1-43**Top U.S. Foreign Trade Freight Gateways by Value of Shipments: 1998**
(1998 \$ billions)

	Rank	Exports	Imports	Total
JFK International Airport, (a)	1	44.4	60.6	105.0
Port of Detroit, MI (l)	2	48.5	44.1	92.6
Port of Long Beach, CA (w)	3	14.3	75.2	89.5
Port of Los Angeles, CA (w)	4	14.1	69.1	83.2
Port of New York, NY and NJ (w)	5	17.9	54.2	72.1
San Francisco Airport, CA (a)	6	32.1	39.8	71.9
Port of Buffalo-Niagra Falls, NY (l)	7	35.2	35.6	70.8
Los Angeles International Airport, CA (a)	8	35.9	31.3	67.2
Port of Laredo, TX (l)	9	29.8	34.9	64.7
Port of Huron, MI (l)	10	17.3	32.4	49.7
Chicago, IL (a)	11	18.1	21.5	39.6
Port of Houston, TX (w)	12	16.6	17.3	33.9
Port of El Paso, TX (l)	13	13.8	19.0	32.8
Port of Seattle, WA (w)	14	5.5	26.2	31.7
Port of Charleston, SC (w)	15	11.2	18.3	29.5
Port of Oakland, CA (w)	16	10.1	14.9	25.0
Port of Norfolk Harbor, VA (w)	17	11.4	13.3	24.7
New Orleans, LA. (a)	18	10.4	12.8	23.2
Miami International Airport, FL (a)	19	15.1	8.0	23.1
Anchorage, AK (a)	20	6.3	15.4	21.7
Port of Baltimore, MD (w)	21	5.3	14.1	19.4
Cleveland, OH (a)	22	8.1	9.3	17.4
Port of Tacoma, WA (w)	23	3.8	13.1	16.9
Port of Otay Mesa Station, CA (l)	24	6.2	9.5	15.7
Port of Miami, FL (w)	25	7.1	8.4	15.5
Port of Champlain-Rouses Pt., NY (l)	26	5.7	9.5	15.2
Dallas-Fort Worth, TX (a)	27	6.2	7.8	14.0
Atlanta, GA (a)	28	6.8	7.1	13.9
Port of New Orleans, LA (w)	29	5.6	8.2	13.8
Port of Savannah, GA (w)	30	5.1	8.4	13.5
Port of Blaine, WA (l)	31	5.3	6.4	11.7
Newark N.J. (a)	32	5.1	5.8	10.9
Port of Port Everglades, FL (w)	33	4.8	5.7	10.5
Port of Nogales, AZ (l)	34	4.2	6.4	10.6
Port of Brownsville-Cameron, TX (l)	35	5.6	4.9	10.5

KEY: a = air; l = land; w = water

Continued next page

Table 1-43
Cont'd**Top U.S. Foreign Trade Freight Gateways by Value of Shipments: 1998**
(1998 \$ billions)

	Rank	Exports	Imports	Total
Port of South Louisiana, LA, Port of (w)	36	7.7	2.8	10.5
Port of Alexandria Bay, NY (l)	37	4.0	6.0	10.0
Port of Jacksonville, FL (w)	38	1.9	7.9	9.8
Port of Hildago, TX (l)	39	4.5	5.1	9.6
Port of Portland, OR (w)	40	2.7	6.8	9.5
Boston Logan Airport, MA (a)	41	5.6	3.7	9.3
Seattle-Tacoma International Airport, WA (a)	42	3.3	5.3	8.6
Port of Calexico-East, CA (l)	43	3.4	4.3	7.7
Port of Highgate Springs-Alburg, VT (l)	44	3.0	4.6	7.6
Port of Pembina, ND (l)	45	3.7	3.8	7.5
Port of Eagle Pass, TX (l)	46	3.6	3.5	7.1
Port of Corpus Christi, TX (w)	47	1.5	4.9	6.4
Port of Sweetgrass, MT (l)	48	2.8	3.4	6.2
Port of Beaumont, TX (w)	49	0.6	5.6	6.2
Port of Philadelphia, PA (w)	50	0.5	5.4	5.9
Total top 50 gateways		541.7	841.6	1383.3

NOTES:

All data: Trade levels reflect the mode of transportation as a shipment enters or exits at a border port. Flows through individual ports are based on reported data collected from U.S. trade documents. Trade does not include low-value shipments. (In general, these are imports valued at less than \$1,250 and exports that are valued at less than \$2,500).

Air data: Data for all air gateways include 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, and others) include major airport(s) in that geographic area in addition to small regional airports. In addition, due to Bureau of Census confidentiality regulations, data for courier operations are included in the airport totals for JFK International Airport, New Orleans, Los Angeles, Cleveland, Chicago, Miami, and Anchorage.

Numbers may not add to totals due to rounding.

SOURCES:

KEY: a = air; l = land; w = water

(a) Air: U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division, special tabulation, November 2000.

(w) Water: U.S. Department of Transportation, Maritime Administration, Office of Statistical and Economic Analysis, U.S. Waterborne Exports and General Imports, Annual 1998 (Washington, DC: July 2000), and personal communication, December 20, 2000.

(l) Land: U.S. Department of Transportation, Bureau of Transportation Statistics, Transborder Surface Freight Data, 2000.

U.S.-Canadian Border, Land Freight Gateways: 1999
(Number of Truck or Railcar Crossings)

Table 1-44

Port Name	
Truck	
US-Canadian Border, Total	6,809,270
Detroit, MI	1,758,752
Buffalo-Niagara Falls, NY	1,187,707
Port Huron, MI	791,203
Blaine, WA	491,885
Champlain-Rouses Point, NY	398,385
Rail (number of full and empty railcars)	
US-Canadian Border, Total	1,475,131
Port Huron, MI	337,519
Detroit, MI	262,084
International Falls, MN	181,457
Buffalo-Niagara Falls, NY	159,647
Portal, ND	129,671

NOTES:

Truck: Data represent the number of truck crossings, not the number of unique vehicles. Data are for both loaded and empty trucks.

Rail: Data includes both loaded and unloaded railcars.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, special tabulation, August 2000. Based on the following primary data source: U.S. Department of Treasury, U.S. Customs Service, Office of Field Operations, Operations Management Database, special tabulation (Washington, DC: 1999).

U.S.-Mexican Border, Land Freight Gateways: 1999
(Number of Truck or Railcar Crossings)

Table 1-45

Port Name	
Truck	
US-Mexican Border, Total	4,267,259
Laredo, TX	1,486,489
El Paso, TX	673,003
Otay Mesa/San Ysidro, CA	545,724
Hildago, TX	325,225
Brownsville, TX	303,540
Rail (number of full and empty railcars)	
US-Mexican Border, Total	496,671
Laredo, TX	213,653
Brownsville, TX	119,590
Eagle Pass, TX	90,470
Nogales, AZ	33,692
El-Paso, TX	32,683

NOTES:

Truck: Data represent the number of truck crossings, not the number of unique vehicles. Data are for both loaded and empty trucks.

Rail: Data includes both loaded and unloaded rail cars.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, special tabulation, August 2000. Based on the following primary data source: U.S. Department of Treasury, U.S. Customs Service, Office of Field Operations, Operations Management Database, special tabulation (Washington, DC: 1999).

Table 1-46**U.S. Waterborne Freight (Million short tons)**

	1960	1965	1970	1975	1980	1985	1990	1995	1996	1997	1998
Foreign	339.3	443.7	581.0	748.7	921.4	774.3	1,041.6	1,147.4	1,183.4	1,220.6	1,245.4
Imports	211.3	269.8	339.3	476.6	517.5	412.7	600.0	672.7	732.6	788.3	840.7
Exports	128.0	173.9	241.6	272.1	403.9	361.6	441.6	474.7	450.8	432.3	404.7
Domestic	760.6	829.2	950.7	946.3	1,077.5	1,014.1	1,122.3	1,093.0	1,100.7	1,112.5	1,094.1
Inland	291.1	369.6	472.1	503.9	535.0	534.7	622.6	620.3	622.1	630.6	625.0
Coastal	209.2	201.5	238.4	231.9	329.6	309.8	298.6	266.6	267.4	263.1	249.6
Great Lakes	155.1	153.7	157.1	129.3	115.1	92.0	110.2	116.1	114.9	122.7	122.2
Intraport	104.2	102.9	81.5	78.3	94.2	74.3	86.4	83.1	89.0	89.8	90.1
Intraterritory	1.0	1.5	1.6	2.9	3.6	3.4	4.5	6.9	7.3	6.3	7.2
Total	1,099.9	1,272.9	1,531.7	1,695.0	1,998.9	1,788.4	2,163.9	2,240.4	2,284.1	2,333.1	2,339.5

NOTE: Beginning in 1996, shipments of fish are excluded from domestic tonnage totals.

SOURCE: U.S. Army Corps of Engineers, *Waterborne Commerce of the United States* (New Orleans, LA: March 2000). Part 5, section 1.

Table 1-47 Tonnage of Top 50 U.S. Water Ports, Ranked by Total Tons^a (Millions)

	1999		1990		% change 1990-99
	Rank	Total tons	Rank	Total tons	
South Louisiana, LA	1	214.2	1	194.2	10.3
Houston, TX	2	158.8	3	126.2	25.9
New York, NY and NJ	3	133.7	2	140.0	-4.5
New Orleans, LA	4	87.5	6	62.7	39.5
Corpus Christi, TX	5	78.1	7	62.0	25.9
Beaumont, TX	6	69.5	23	26.7	160.0
Baton Rouge, LA	7	63.7	5	78.1	-18.5
Plaquemine, LA	8	62.4	8	56.6	10.3
Long Beach, CA	9	60.9	10	52.4	16.2
Valdez, AK	10	53.4	4	96.0	-44.3
Pittsburgh, PA	11	52.9	19	35.5	49.0
Tampa, FL	12	51.5	11	51.6	-0.2
Lake Charles, LA	13	50.8	16	40.9	24.3
Texas City, TX	14	49.5	12	48.1	3.0
Mobile, AL	15	45.5	15	41.1	10.6
Duluth-Superior, MN and WI	16	42.3	17	40.8	3.8
Los Angeles, CA	17	42.3	13	46.4	-8.7
Norfolk Harbor, VA	18	40.8	9	53.7	-24.1
Philadelphia, PA	19	39.3	14	41.8	-6.0
Baltimore, MD	20	37.3	18	39.5	-5.7
St. Louis, MO and IL	21	32.7	22	27.1	20.6
Portland, OR	22	29.3	21	27.5	6.6
Pascagoula, MS	23	28.1	24	26.5	6.1
Freeport, TX	24	28.1	40	14.5	93.9
Paulsboro, NJ	25	26.9	27	23.3	15.3
Chicago, IL	26	26.0	28	22.5	15.3
Huntington, WV	27	24.7	34	17.3	42.7
Seattle, WA	27	25.5	30	21.6	18.2
Richmond, CA	28	22.4	32	21.2	5.9
Boston, MA	30	22.1	29	21.9	0.9

Continued next page

Table 1-47
Cont'd**Tonnage of Top 50 U.S. Water Ports, Ranked by Total Tons^a (Millions)**

	1999		1990		% change 1990-99
	Rank	Total tons	Rank	Total tons	
Port Everglades, FL	31	22.1	42	14.1	56.2
Tacoma, WA	32	21.1	31	21.4	-1.6
Portland, ME	33	20.4	51	10.8	89.4
Charleston, SC	34	19.9	54	9.7	105.2
Marcus Hook, PA	35	19.3	25	25.9	-25.4
Jacksonville, FL	36	19.3	36	15.1	27.6
Port Arthur, TX	37	18.3	20	30.7	-40.4
Savannah, GA	38	18.2	44	13.6	34.1
Detroit, MI	39	16.9	33	17.7	-4.7
Memphis, TN	40	16.6	47	12.4	34.3
San Juan, PR	42	15.6	39	14.5	7.3
Cleveland, OH	43	15.5	41	14.4	7.9
Indiana Harbor, IN	44	15.1	37	14.7	2.9
Newport News, VA	45	14.3	26	24.9	-42.7
Cincinnati, OH	46	14.3	46	12.6	13.3
Lorain, OH	47	13.0	43	14.0	-6.9
Toledo, OH	48	12.3	38	14.7	-16.1
Honolulu, HI	49	12.2	50	11.3	7.6
Two Harbors, MN	50	11.9	48	12.3	-3.3
Total top 50		2,016.5		1,862.5	8.3
All ports		2,326.9		2,163.9	7.5

^a Tonnage totals include both domestic and foreign waterborne trade.

NOTE: In 1990, Grays Harbor, Washington, ranked 45th (12.8) and Anacortes, Washington, ranked 35th (15.4).

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 1998, Part 5, National Summaries* (New Orleans, LA :2000), tables 1-1 and 5-2.

Table 1-48

Growth of Freight Activity in the United States: Comparison of the 1997 and 1993 Commodity Flow Surveys

Mode of Transportation	Value			Tons			Ton-Miles		
	1997 (billion \$ 1997)	1993 (billion \$ 1997)	Percent change	1997 (millions)	1993 (millions)	Percent change	1997 (billions)	1993 (billions)	Percent change
All modes	6,944.0	6,360.8	9.2	11,089.7	9,688.5	14.5	2,661.4	2,420.9	9.9
Single Modes	5,719.6	5,376.3	6.4	10,436.5	8,922.3	17.0	2,383.5	2,136.9	11.5
Truck ^a	4,981.5	4,791.0	4.0	7,700.7	6,385.9	20.6	1,023.5	869.5	17.7
For-hire truck	2,901.3	2,856.1	1.6	3,402.6	2,808.3	21.2	741.1	629.0	17.8
Private truck ^b	2,036.5	1,910.4	6.6	4,137.3	3,543.5	16.8	268.6	235.9	13.9
Rail	319.6	269.2	18.7	1,549.8	1,544.1	0.4	1,022.5	942.6	8.5
Water	75.8	67.1	13.1	563.4	505.4	11.5	261.7	272.0	-3.8
Shallow draft	53.9	44.3	21.7	414.8	362.5	14.4	189.3	164.4	15.2
Great Lakes	1.5	1.3	15.4	38.4	33.0	16.4	13.4	12.4	8.2
Deep draft	20.4	21.5	-4.9	110.2	109.9	0.2	59.0	95.2	-38.0
Air (includes truck and air)	229.1	151.3	51.4	4.5	3.1	42.6	6.2	4.0	55.5
Pipeline ^c	113.5	97.8	16.1	618.2	483.6	27.8	S	S	S
Multiple Modes	945.9	720.9	31.2	216.7	225.7	-4.0	204.5	191.5	6.8
Parcel, U.S. Postal Service or courier	855.9	612.8	39.7	23.7	18.9	25.4	18.0	13.2	36.8
Truck and rail	75.7	90.4	-16.3	54.2	40.6	33.5	55.6	37.7	47.5
Truck and water	8.2	10.2	-19.4	33.2	68.0	-51.2	34.8	40.6	-14.4
Rail and water	1.8	4.0	-55.2	79.3	79.2	0.1	77.6	70.2	10.5
Other multiple modes	4.3	3.5	22.0	26.2	18.9	38.6	18.6	S	S
Other/unknown modes	278.6	263.6	5.7	436.5	540.5	-19.2	73.4	92.6	-20.7
All modes	6,944.0	6,360.8	9.2	11,089.7	9,688.5	14.5	2,661.4	2,420.9	9.9

^a Truck as a single mode includes shipments that went by private truck only, for-hire truck only, or a combination of both.

^b Private truck refers to a truck operated by a temporary or permanent employee of an establishment or the buyer/receiver of the shipment.

^c Excludes most shipments of crude oil.

NOTE: Numbers and percents may not add to totals due to rounding.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics and U.S.

Department of Commerce, Census Bureau 1997 Economic Census, *Transportation, 1997 Commodity Flow Survey* (Washington, DC: December 1999), table 1b; the Bureau of Transportation Statistics converted the value of 1993 commodities from 1993 current dollars to 1997 constant dollars using Bureau of Economic Analysis' chain-type price deflators.

Key: S = Data are not published because of high sampling variability or other reasons

Table 1-49**Value, Tons, and Ton-Miles of Freight Shipments within the United States
by Domestic Establishments, 1997**

SCTG	Commodity description	Value (\$billions)	Tons (millions)	Ton-miles (billions)	Value per Ton (\$)	Average Miles per Shipment
01	Live animals and live fish	6.2	5.9	1.5	1,042	272
02	Cereal grains	59.6	489.7	200.6	122	125
03	Other agricultural products	102.3	201.7	80.8	508	438
04	Animal feed and products of animal origin (NEC)	66.8	219.7	46.8	304	79
05	Meat, fish, seafood, and their preparations	183.8	79.5	36.4	2,312	137
06	Milled grain products and preparations, and bakery products	109.9	102.7	48.5	1,069	122
07	Other prepared foodstuffs and fats and oils	346.4	396.9	124.1	873	127
08	Alcoholic beverages	87.9	81.1	27.8	1,085	58
09	Tobacco products	56.4	4.1	1.0	13,661	296
10	Monumental or building stone	2.7	15.9	1.5	172	115
11	Natural sands	4.3	442.5	25.5	10	46
12	Gravel and crushed stone	11.5	1,814.8	92.9	6	36
13	Nonmetallic minerals (NEC)	11.3	235.7	52.2	48	174
14	Metallic ores and concentrates	12.6	90.7	47.7	139	303
15	Coal	25.5	1,217.0	542.3	21	81
17	Gasoline and aviation turbine fuel	217.1	962.8	136.6	225	45
18	Fuel oils	94.3	481.7	51.2	196	28
19	Coal and petroleum products (NEC)	74.9	475.1	81.9	158	85
20	Basic chemicals	159.6	296.1	136.8	539	332
21	Pharmaceutical products	224.4	9.9	5.6	22,678	692
22	Fertilizers	27.3	179.1	43.6	153	116
23	Chemical products and preparations (NEC)	209.5	92.0	45.0	2,276	333
24	Plastics and rubber	278.8	130.4	69.1	2,138	451
25	Logs and other wood in the rough	15.1	370.7	28.1	41	85
26	Wood products	126.4	329.1	96.9	384	287
27	Pulp, newsprint, paper, and paperboard	106.6	152.3	83.7	700	194
28	Paper or paperboard articles	98.3	73.5	22.0	1,338	307
29	Printed products	260.3	78.1	22.8	3,335	431
30	Textiles, leather, and articles of textiles or leather	379.2	45.9	24.7	8,266	912
31	Nonmetallic mineral products	109.2	910.1	91.4	120	401
32	Base metal in primary or semifinished forms and in finished basic shapes	285.7	335.9	117.5	851	276
33	Articles of base metal	227.2	106.5	48.7	2,133	403
34	Machinery	417.1	49.9	27.0	8,356	356
35	Electronic and other electrical equipment and components and office equipment	869.7	39.6	27.1	21,955	640

KEY: NEC = not elsewhere classified;
SCTG = Standard Classification
of Transportation Goods

Continued next page

Table 1-49
Cont'd**Value, Tons, and Ton-Miles of Freight Shipments within the United States
by Domestic Establishments, 1997**

SCTG	Commodity description	Value (\$billions)	Tons (millions)	Ton-miles (billions)	Value per Ton (\$)	Average Miles per Shipment
36	Motorized and other vehicles (including parts)	571.0	98.1	45.9	5,822	278
37	Transportation equipment (NEC)	129.2	5.5	3.8	23,587	796
38	Precision instruments and apparatus	157.9	2.9	2.2	53,741	840
39	Furniture, mattresses and mattress supports, lamps, lighting fittings, and illuminated signs	97.3	19.9	11.6	4,885	625
40	Miscellaneous manufactured products	420.9	112.5	39.9	3,741	860
41	Waste and scrap	32.7	177.8	40.1	184	164
43	Mixed freight	230.4	110.3	17.2	2,090	252
	Commodity unknown	36.5	46.2	11.8	791	499

NOTE: The 1997 Commodity Flow Survey data reported in this table are based on SCTG code, which differs from the code used in the 1993 CFS. Therefore, data in this table are not directly comparable to the 1993 data reported in the 1998 edition of this report.

KEY: NEC = not elsewhere classified;
SCTG = Standard Classification
of Transportation Goods

SOURCES: U.S. Department of Transportation, Bureau of Transportation Statistics, U.S. Department of Commerce, Census Bureau, 1997 Economic Census, Transportation, *1997 Commodity Flow Survey* (Washington, DC: December 1999), table 7.

Table 1-50 Value of U.S. Land Exports to and Imports from Canada and Mexico by Mode (\$ millions)

	1994	1995	1996	1997	1998	1999
Exports to Canada						
Truck	^R 89,151.1	97,423.4	102,743.0	111,173.8	114,806.1	123,140.0
Rail	^R 13,593.9	15,271.9	^R 15,678.7	13,255.6	12,279.6	11,754.6
Pipeline	^R 133.8	^R 121.3	162.2	180.6	93.4	113.9
Other ^a	^R 21,753.2	17,010.5	^R 20,467.5	9,336.1	10,559.5	11,360.0
Mail	^R 69.3	^R 57.0	^R 58.3	24.1	6.8	5.6
Total	^R124,701.3	^R129,884.1	^R139,109.7	^R133,970.2	137,745.4	146,374.1
To Mexico						
Truck	^R 39,066.5	35,914.2	^R 44,091.8	55,592.6	60,432.1	66,923.8
Rail	4,192.0	4,694.4	5,119.2	5,648.0	6,188.8	5,710.6
Pipeline	0.4	1.0	2.3	68.3	73.4	144.2
Other ^a	3,238.9	2,025.8	^R 2,540.1	2,860.5	3,470.0	3,349.6
Mail ^b	^R 5.5	26.8	—	0.1	0.1	0.7
Total	^R46,503.3	^R42,662.2	51,753.4	64,169.5	70,164.4	76,129.0
Imports from Canada						
Truck	^R 79,456.4	88,964.9	^R 98,400.8	99,814.8	108,856.7	118,901.4
Rail	^R 30,322.8	39,996.9	^R 39,811.0	38,293.0	37,374.1	46,255.4
Pipeline	^R 9,728.6	10,606.6	12,796.2	13,879.5	11,120.1	12,055.5
Other ^a	^R 3,991.6	3,888.2	^R 4,968.4	3,572.5	4,575.1	6,386.9
Mail	^R 5.5	5.2	^R 6.9	0.4	1.7	13.1
FTZ ^c	U	207.6	223.4	122.4	177.9	111.2
Total	123,504.9	^R143,669.4	^R156,206.7	155,682.6	162,105.7	183,723.5
From Mexico						
Truck	35,013.9	43,014.3	^R 48,350.0	56,716.5	65,883.7	76,448.0
Rail	7,769.0	^R 9,137.9	12,297.7	12,646.9	12,029.7	14,693
Pipeline	187.9	^R 27.4	8.1	3.6	2.4	1.5
Other ^a	643.5	^R 768.9	639.2	668.2	917.8	1,255.8
Mail	1.9	^R 1.3	1.5	0.2	0.2	0.2
FTZ ^c	U	1,099.2	2,015.6	2,119.6	2,886.7	2,624.4
Total	43,616.2	^R54,049.0	^R63,312.1	72,155.0	81,720.3	95,023.4

^a Other includes "flyaway aircraft" or aircraft moving under their own power (i.e., aircraft moving from the manufacturer to a customer and not carrying any freight), powerhouse (electricity), vessels moving under their own power, pedestrians carrying freight, and unknown and miscellaneous.

^b Beginning in January 1996, new edit checks were added to the processing of the Transborder Surface Freight Data. Because of these checks, the number of mail export shipments from the United States to Mexico declined sharply between 1995 and 1996. The Census Bureau found that a number of rail shipments were misidentified as mail shipments in 1994 and 1995, although the exact proportion of these is unknown.

^c Foreign Trade Zones (FTZs) were added as a mode of transport for land import shipments beginning in April 1995. Although FTZs are being treated as a mode of transportation in the Transborder Surface Freight Data, the actual mode for a specific shipment into or out of an FTZ is unknown because U.S. Customs does not collect this information.

NOTES: Shipments that neither originate nor terminate in the United States (i.e., in transit, in-bond shipments) are not included

KEY: — = value too small to report; R = revised; U = data are not available

here, although they use the U.S. transportation system. These shipments are usually part of Mexico-Canada trade, and simply pass through the United States. Transshipments, however, are included between 1994, 1995, and 1996; these are shipments that entered or exited the United States by way of a Customs port on the northern or southern border, but whose origin or destination was a country other than Canada or Mexico. Starting in 1997, transshipments are excluded. Users should note these differences before comparing figures for 1994-96 with 1997 and subsequent year data. Data exclude export shipments valued at less than \$2,500 and import shipments valued at less than \$1,250.

Individual modal totals may not sum to exact export or import totals due to rounding.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, Transborder Surface Freight Data, available at www.bts.gov/transborder, 2000.

Table 1-51 Crude Oil and Petroleum Products Transported in the United States by Mode

	1975	1980	1985	1990	1995	1996	1997	1998
Crude Oil								
Ton-miles (billions)								
Pipelines ^a	288.0	362.6	334.4	334.8	335.9	338.3	337.4	334.1
Water carriers	40.6	^c 387.4	449.2	291.2	247.7	202.4	147.3	117.9
Motor carriers ^b	1.4	2.5	1.8	1.5	1.7	1.7	1.7	1.6
Railroads	1.5	0.5	0.8	0.7	0.8	0.8	0.5	0.5
Total	331.5	753.0	786.2	628.2	586.0	543.2	486.9	454.1
% of total								
Pipelines ^a	86.9	48.2	42.5	53.3	57.3	62.3	69.3	73.6
Water carriers	12.2	51.4	57.2	46.4	42.3	37.3	30.3	26.0
Motor carriers ^b	0.4	0.3	0.2	0.2	0.3	0.3	0.3	0.3
Railroads	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Refined Petroleum Products								
Ton-miles (billions)								
Pipelines ^a	219.0	225.6	229.9	249.3	265.2	280.9	279.1	285.7
Water carriers	257.4	230.4	141.2	157.8	153.2	154.1	148.3	147.1
Motor carriers ^b	26.2	24.3	26.9	28.2	24.6	28.0	26.0	26.7
Railroads	12.6	12.0	11.3	13.3	15.9	16.0	16.2	16.2
Total	515.2	492.3	409.3	448.6	458.9	479.0	469.6	475.7
% of total								
Pipelines ^a	66.1	30.0	29.2	39.7	45.3	51.7	57.3	62.9
Water carriers	77.6	30.6	18.0	25.1	26.1	28.4	30.5	31.0
Motor carriers ^b	7.9	5.0	3.4	4.5	5.3	5.9	5.3	5.9
Railroads	3.8	1.6	2.7	2.1	2.7	2.9	3.5	3.4
Combined Crude and Petroleum Products								
Ton-miles (billions)								
Pipelines ^a	507.0	588.2	564.3	584.1	601.1	619.2	616.5	619.8
Water carriers	298.0	^c 617.8	590.4	449.0	400.9	356.5	295.6	265.0
Motor carriers ^b	27.6	26.8	28.7	29.7	26.3	29.7	27.7	28.3
Railroads	14.1	12.5	12.1	14.0	16.6	16.8	16.7	16.7
Total	846.7	1,245.3	1,195.5	1,076.8	1,044.9	1,022.2	956.5	929.8
% of total								
Pipelines ^a	59.9	47.2	47.2	54.2	57.5	60.6	64.5	66.7
Water carriers	35.2	49.6	49.4	41.7	38.4	34.9	30.9	28.5
Motor carriers ^b	3.3	2.2	2.4	2.8	2.5	2.9	2.9	3.0
Railroads	1.7	1.0	1.0	1.3	1.6	1.6	1.8	1.8

^a The amount carried by pipeline is based on ton-miles of crude and petroleum products for federally regulated pipelines (84%), plus an estimated breakdown of crude and petroleum products for the ton-miles for pipelines not federally regulated (16%).

^b The amount carried by motor carriers is estimated.

^c Reflects the entrance between 1975 and 1980 of the Alaska pipeline, moving crude petroleum for water transportation to U.S. refineries.

SOURCES: 1975: Association of Oil Pipe Lines, *Shifts in Petroleum Transportation* (Washington, DC: Annual issues), table 6.
1980-98: Ibid., *Shifts in Petroleum Transportation* (Washington, DC: Annual issues), table 3.

Table 1-52 U.S. Hazardous Materials Shipments by Mode of Transportation, 1997

Mode of Transportation	Value (\$ million)	Percent	Tons (thousands)	Percent	Ton-miles (millions)	Percent
Single modes	452.7	97.1	1,541.7	98.5	258.9	98.1
Truck ^a	298.2	63.9	869.8	55.6	74.9	28.4
For-hire	134.3	28.8	336.4	21.5	45.2	17.1
Private ^b	160.7	34.5	522.7	33.4	28.8	10.9
Rail	33.3	7.1	96.6	6.2	74.7	28.3
Water	27.0	5.8	143.2	9.1	68.2	25.9
Air	8.6	1.8	0.1	—	0.1	—
Pipeline ^c	85.7	18.4	432.1	27.6	S	S
Multiple modes	5.7	1.2	6.0	0.4	3.1	1.2
Parcel, U.S. Postal Service or Courier	2.9	0.6	0.1	—	0.1	—
Other	2.9	0.6	5.9	0.4	3.0	1.1
Unknown and other modes	7.9	1.7	17.5	1.1	1.8	0.7
All modes	466.4	100.0	1,565.2	100.0	263.8	100.0

^a Truck as a single mode includes shipments that went by private truck only, for-hire truck only, or a combination of both.

^b Private truck refers to a truck operated by a temporary or permanent employee of an establishment or the buyer/receiver of the shipment.

^c Excludes most shipments of crude oil. See previous table for the estimated amount of crude oil and petroleum products transported in the United States.

NOTE: Numbers and percents may not add to totals due to rounding.

KEY: S = data are not published because of high sampling variability or other reasons; — less than 1 unit of measure or equal to zero

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, U.S. Department of Commerce, Census Bureau, 1997 Economic Census *1997 Commodity Flow Survey, Hazardous Materials* (Washington, DC: December 1999), table 1.

Table 1-53

U.S. Hazardous Materials Shipments by Hazard Class, 1997

Hazard Class and Description	Value (\$ billion)	Percent	Tons (thousands)	Percent	Ton-miles (millions)	Percent	Average miles per shipment
Class 1. Explosives	4.3	0.9	1.5	0.1	S	S	549
Class 2. Gases	40.9	8.8	115.0	7.3	21.8	8.3	66
Class 3. Flammable liquids	335.6	72.0	1,264.3	80.8	160.0	60.6	73
Class 4. Flammable solids	3.9	0.8	11.8	0.8	9.6	3.6	838
Class 5. Oxidizers and organic peroxides	4.5	1.0	9.2	0.6	4.5	1.7	193
Class 6. Toxics (poison)	10.1	2.2	6.4	0.4	2.8	1.1	402
Class 7. Radioactive materials	2.7	0.6	0.9	0.1	—	—	445
Class 8. Corrosive materials	40.4	8.7	91.6	5.9	41.2	15.6	201
Class 9. Miscellaneous dangerous goods	23.9	5.1	65.3	4.2	22.7	8.6	323
Total	466.4	100.0	1,565.2	100.0	263.8	100.0	113

NOTE: Numbers and percents may not add to totals due to rounding.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics and U.S. Department of Commerce, Census Bureau, 1997 Economic Census, *1997 Commodity Flow Survey, Hazardous Materials* (Washington, DC: December 1999), table 2.

KEY: S = data were not published because of high sampling variability or other reasons; — less than 1 unit of measure or equal to zero

Table 1-54 Worldwide Commercial Space Launches

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total	1990-99
United States												
Athena	0	0	0	0	0	1	0	0	0	3		4
Atlas	0	2	3	1	3	5	6	6	3	3		32
Conestoga	0	0	0	0	0	1	0	0	0	0		1
Delta	4	4	3	1	1	1	2	7	11	5		39
Pegasus	0	0	0	1	0	0	0	3	3	1		8
Taurus	0	0	0	0	0	0	0	0	0	1		1
Titan	3	0	0	0	0	0	0	0	0	0		3
Total	7	6	6	3	4	8	8	16	17	13		88
Europe												
Ariane 4	5	6	6	6	8	8	9	11	9	8		76
Total	5	6	6	6	8	8	9	11	9	8		76
Russia												
Cosmos	0	0	0	0	0	0	0	0	0	1		1
Dnepr	0	0	0	0	0	0	0	0	0	1		1
Proton	0	0	0	0	0	0	2	6	4	5		17
Shtil	0	0	0	0	0	0	0	0	1	0		1
Soyuz	0	0	0	0	0	0	0	0	0	6		6
Start	0	0	0	0	0	0	0	1	0	0		1
Total	0	0	0	0	0	0	2	7	5	13		27
Ukraine												
Zenit	0	0	0	0	0	0	0	0	1	0		1
Total	0	0	0	0	0	0	0	0	1	0		1
China												
Long March 2C	0	0	0	0	0	0	0	1	4	1		6
Long March 2E	0	0	2	0	1	3	0	0	0	0		6
Long March 3	1	0	0	0	1	0	1	0	0	0		3
Long March 3B	0	0	0	0	0	0	1	2	0	0		3
Total	1	0	2	0	2	3	2	3	4	1		18
Sea Launch^a												
Zenit	0	0	0	0	0	0	0	0	0	1		1
Total	0	0	0	0	0	0	0	0	0	1		1
TOTAL space launches	13	12	14	9	14	19	21	37	36	36		211

^a Sea Launch is an international venture involving organizations in four countries and uses its own launch facility outside national borders. Their first commercial launch, in 1999, was licensed by the Federal Aviation Administration.

NOTES: A commercial launch is a launch that is internationally competed, i.e., available in principle to international launch providers, or whose primary payload is commercial in nature. Data are for orbital launches only.

SOURCES: 1990-98: U.S. Department of Transportation, Federal Aviation Administration, Associate Administrator for Commercial Space Transportation, personal communication, Feb. 25, 1999.

1999: Ibid., *Commercial Space Transportation: 1999 Year in Review* (Washington, DC: January 2000), Internet site http://ast.faa.gov/launch_info/ as of Apr. 12, 2000, tables 1 and 4 (with supporting text).