RITA *Bureau of Transportation Statistics*

TSAR

Transportation Statistics Annual Report

2009

U.S. Department of Transportation
Research and Innovative Technology Administration

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Recommended citation

U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Transportation Statistics Annual Report 2009* (Washington, DC: 2009)

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Preface

The Bureau of Transportation Statistics (BTS) of the Research and Innovative Technology Administration (RITA) is required by law to report on transportation statistics to the President and Congress. This *Transportation Statistics Annual Report* is the 15th such report prepared in response to this legislative mandate. In addition to presenting the state of transportation statistics, the report focuses on transportation indicators pertinent to key initiatives of the U.S. Department of Transportation and the topics specified in its mandate.

BTS's *National Transportation Statistics* (NTS), an online companion publication to this annual report, has more comprehensive and longer time-series data than could be accommodated within this publication. The NTS comprises more than 260 data tables, plus citations for its data sources, a list of acronyms, and a glossary. NTS, which BTS updates quarterly, is available at http://www.bts.gov.

Summary

The *Transportation Statistics Annual Report* (TSAR) presents data and information selected by the Bureau of Transportation Statistics (BTS), a component of the U.S. Department of Transportation's (USDOT's) Research and Innovative Technology Administration (RITA), to fulfill its legislative mandate. For the reader's convenience, the data and information have been selected and organized by topic or transportation mode.

Chapter 1 discusses key USDOT initiatives: fostering safety, improving livable communities, improving the state of good repair, fostering economic competitiveness, and building environmental sustainability of the U.S. transportation system. The chapter reflects the intermodal and multimodal nature of the U.S. transportation system and also highlights the Commodity Flow Survey (CFS).[1] The CFS identifies and reports hazardous material shipments by geographic regions, mode of transportation, and classification scheme.

Chapter 2 examines the modal systems that comprise the U.S. transportation system. More specifically, this chapter covers aviation, motor vehicles, the marine transportation system, rail, and transit.

The legislative mandate requires BTS to document the methods used to obtain the report's statistical information, ensure its quality, and make recommendations for improvements. In chapter 3, the major BTS program areas respond to this requirement by identifying the guidelines that apply to Federal data quality and the statistics included in this report. The chapter also lists the select Federal agencies that collect or compile transportation data. In addition, this chapter focuses on data gaps and improving the ways in which transportation statistics are collected, compiled, analyzed, and published.

Appendix A provides a snapshot of the U.S. demographics factors—such as population, labor force, and economic conditions—that influence travel patterns and goods movement. Appendix B includes a list of acronyms used throughout the report. Appendix C provides a glossary. Appendix D includes maps showing *American Recovery and Reinvestment Act of 2009* funds and projects by State, research and development facilities funded by the USDOT as well as U.S. air traffic hubs, North American cruise destinations and market share, and major U.S. transportation facilities. Appendix E cross-references the topics specified in our legislative mandate with the figures and tables presented in this report.

[1] The Commodity Flow Survey is a source of domestic freight shipments by establishments in the mining, manufacturing, wholesale, auxiliaries, and selected retail industries. Data are provided on the types, origins and destinations, values, weights, mode of transportation, distance, and ton-miles of the commodities shipped. The CFS is a survey given to shippers every 5 years as part of the Economic Census. The CFS was conducted in 1993, 1997, 2002, and most recently in 2007.

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Chapter

1

U.S. Transportation System

Safety

TABLE 1-1-1 Transportation Fatalities by Mode: 1998–2008

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Air	671	683	764	1,166	616	699	637	603	773	540	564
U.S. air carrier	1	12	92	531	0	22	14	22	50	1	3
Commuter carrier	0	12	5	13	0	2	0	0	2	0	0
On-demand air taxi	45	38	71	60	35	42	64	18	16	43	66
General aviation	625	621	596	562	581	633	559	563	705	496	495
Highway	41,501	41,717	41,945	42,196	43,005	42,884	42,836	43,510	42,708	41,259	37,261
Passenger car occupants	21,194	20,862	20,699	20,320	20,569	19,725	19,192	18,512	17,925	16,614	14,587
Motorcyclists	2,294	2,483	2,897	3,197	3,270	3,714	4,028	4,576	4,837	5,174	5,290
Truck occupants, light	10,705	11,265	11,526	11,723	12,274	12,546	12,674	13,037	12,761	12,458	10,764
Truck occupants, large	742	759	754	708	689	726	766	804	805	805	677
Bus occupants	38	59	22	34	45	41	42	58	27	36	67
Pedestrians	5,228	4,939	4,763	4,901	4,851	4,774	4,675	4,892	4,795	4,699	4,378
Pedalcyclists	760	754	693	732	665	629	727	786	772	701	716
Other	540	596	591	581	642	729	732	845	786	772	782
Pipeline	21	22	38	7	11	12	23	13	21	15	8
Hazardous liquid pipeline	2	4	1	0	1	0	5	2	0	4	2
Gas pipeline	19	18	37	7	10	12	18	11	21	11	6
Railroad	1,008	932	937	971	951	865	891	884	903	845	798
Highway-rail grade crossing	431	402	425	421	357	334	371	359	369	337	289
Railroad (mostly trespassers)	577	530	512	550	594	531	520	525	534	512	514
Transit	286	299	295	267	280	234	248	236	227	288	U
Highway-rail grade crossing	26	21	20	13	24	21	29	23	21	27	U
Transit	260	278	275	254	256	213	219	213	206	261	U
Waterborne	1,033	928	888	828	863	833	822	835	839	811	827
Commercial vessel-related	69	58	53	53	59	69	86	78	73	67	51
Not related to vessel	149	136	134	94	54	61	60	60	56	59	67
Recreational boating	815	734	701	681	750	703	676	697	710	685	709

NOTES: The actual number of deaths for passengers on trains from 1998-2008 was: 1998 (4), 1999 (14), 2000 (4), 2001 (3), 2002 (7), 2003 (3), 2004 (3), 2005 (16), 2006 (2), 2007 (5), 2008 (24).

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

SOURCES: **Air**: National Transportation Safety Board; **Highway**: National Highway Traffic Safety Administration; **Pipeline**: Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety; **Railroad**: Federal Railroad Administration; **Transit**: Federal Transit Administration; **Waterborne**: U.S. Department of Homeland Security, U.S. Coast Guard as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, National Transportation Statistics, table 2-1, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-1-2 Distribution of Transportation Fatalities: 2008

Category	Number of fatalities	Percent
Passenger car occupants	14,587	37.1
Light-truck occupants	10,764	27.4
Motorcyclists	5,290	13.4
Pedestrians struck by motor vehicles	4,378	11.1
Pedalcyclists struck by motor vehicles	716	1.8
Recreational boating	709	1.8
Large-truck occupants	677	1.7
Other and unknown motor vehicle occupants	594	1.5
General aviation	495	1.3
Railroad trespassers (excluding grade crossing)	458	1.2
Other nonoccupants struck by motor vehicles	188	0.5
Grade crossings, not including motor vehicles	68	0.2
Bus occupants	67	0.2
Waterborne, not related to vessel casualties	67	0.2
Air taxi	66	0.2
Heavy-rail transit	61	0.2
Waterborne, commercial vessel-related	51	0.1
Railroad employees, contractors, and volunteers on duty	28	0.1
Passengers on railroad trains	24	0.1
Private grade crossings, with motor vehicles	21	0.1
Light-rail transit	14	0.0
Gas transmission and distribution pipeline	6	0.0
Air carriers	3	0.0
Hazardous liquid pipeline	2	0.0
Commuter air	0	0.0
Total fatalities	**39,334**	**100.0**
Other counts, redundant with above		
Large-truck occupants and nonoccupants	4,229	
Public grade crossings, with motor vehicles	198	
Commuter rail	93	

NOTES: See table 1-1-1 for detailed notes. Percents may not add to 100 due to rounding.

SOURCES: **Air**: National Transportation Safety Board; **Highway**: National Highway Traffic Safety Administration; **Pipeline**: Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety; **Railroad**: Federal Railroad Administration; **Transit**: Federal Transit Administration; **Waterborne**: U.S. Department of Homeland Security, U.S. Coast Guard as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 2-4, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-1-3 Transportation-Related Occupational Fatalities: 1998–2008

	All occupational fatalities	Transportation-related fatalities, total	Highway	Nonhighway	Aircraft	Pedestrian struck by vehicle	Water vehicle	Railway
1998	6,055	2,645	1,442	388	224	413	112	60
1999	6,054	2,618	1,496	352	228	377	102	56
2000	5,920	2,573	1,365	399	280	370	84	71
2001	5,915	2,524	1,409	326	247	383	90	62
2002	5,534	2,385	1,373	323	194	356	71	64
2003	5,575	2,364	1,353	347	211	337	69	43
2004	5,764	2,490	1,398	338	231	378	91	50
2005	5,734	2,493	1,437	340	149	391	88	83
2006	5,840	2,459	1,356	345	217	379	96	65
2007	5,657	2,351	1,414	296	174	345	71	49
2008	5,071	2,053	1,149	283	189	322	75	34

NOTES: Numbers may not add to totals because transportation categories may include subcategories not shown separately. *Highway* includes collisions between vehicles/mobile equipment moving in the same or opposite directions, such as in an intersection; between moving and standing vehicles/mobile equipment at the side of a roadway; or a vehicle striking a stationary object. Also includes noncollisions, e.g., jack-knifed or overturned vehicle/mobile equipment–no collision; ran off highway–no collision; struck by shifting load; sudden start or stop; not elsewhere classified.

Nonhighway refers to farms and industrial premises. Includes collisions between vehicles/mobile equipment; vehicles/mobile equipment striking a stationary object. Also includes noncollisions such as a fall from a moving vehicle/mobile equipment, fall from and struck by vehicle/mobile equipment, overturned vehicle/mobile equipment, and loss of control of vehicle/mobile equipment. *Pedestrian struck by vehicle* includes workers struck by vehicle/mobile equipment in roadway, on side of road, in a parking lot, or nonroad area. *Water vehicle* includes collisions, explosions, fires, fall from or on ship/boat, and sinking/capsized water vehicles involved in transportation. Does not include fishing vessels. *Railway* includes collisions between railway vehicles, railway vehicle and other vehicle, railway vehicle and other object, and derailment.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Census of Fatal Occupational Injuries*, tables A-2 and A-9, available at http://www.bls.gov/iif/oshcfoi1.htm as of September 2009 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 2-7, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-1-4 Injured Persons by Transportation Mode: 1998–2008

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Air	**369**	**406**	**357**	**368**	**337**	**367**	**303**	**304**	**290**	**291**	**289**
U.S. air carrier	30	67	29	19	24	31	20	14	9	16	16
Commuter carrier	2	2	7	4	0	1	0	0	1	0	2
On-demand air taxi	10	15	12	24	16	12	17	23	16	20	13
General aviation	327	322	309	321	297	323	266	267	264	255	258
Highway	**3,192,035**	**3,236,238**	**3,188,750**	**3,032,672**	**2,925,758**	**2,888,601**	**2,788,378**	**2,699,000**	**2,575,000**	**2,491,000**	**2,346,000**
Passenger car occupants	2,201,375	2,137,503	2,051,609	1,926,625	1,804,788	1,756,495	1,642,549	1,573,396	1,474,536	1,379,181	1,304,006
Motorcyclists	48,974	49,986	57,723	60,236	64,713	67,103	76,379	87,335	88,652	102,994	95,986
Truck occupants, light	762,506	846,865	886,566	860,527	879,338	889,048	900,171	872,137	856,896	841,451	768,410
Truck occupants, large	28,767	32,892	30,832	29,424	26,242	26,893	27,287	27,284	23,815	23,314	22,947
Bus occupants	15,559	21,958	17,769	15,427	18,819	18,174	16,410	11,133	9,839	12,141	15,149
Pedestrians	68,955	85,235	77,625	77,619	70,664	69,949	67,985	64,446	60,924	70,286	68,832
Pedalcyclists	53,379	51,290	51,160	45,277	48,011	46,378	41,086	45,439	44,012	43,481	52,395
Other	12,519	10,509	15,466	17,536	13,182	14,561	16,511	17,806	17,989	17,685	18,011
Pipeline	**81**	**108**	**81**	**61**	**49**	**71**	**60**	**48**	**36**	**53**	**65**
Hazardous liquid pipeline	6	20	4	10	0	5	16	2	2	10	2
Gas pipeline	75	88	77	51	49	66	44	46	34	43	63
Railroad	**11,459**	**11,700**	**11,643**	**10,985**	**11,103**	**9,264**	**9,192**	**9,511**	**8,710**	**9,603**	**8,789**
Highway-rail grade crossing	1,303	1,396	1,219	1,157	999	1,035	1,095	1,051	1,070	1,054	949
Railroad	10,156	10,304	10,424	9,828	10,104	8,229	8,097	8,460	7,640	8,549	7,840
Transit	**55,990**	**55,325**	**56,697**	**53,945**	**19,260**	**18,235**	**18,982**	**18,131**	**18,327**	**20,944**	**23,105**
Highway-rail grade crossing	58	159	123	74	108	117	153	194	172	224	271
Transit	55,932	55,166	56,574	53,871	19,152	18,118	18,829	17,937	18,155	20,720	22,834
Waterborne	**5,321**	**4,992**	**5,112**	**5,008**	**4,856**	**4,666**	**4,066**	**4,095**	**5,245**	**4,422**	**3,947**
Vessel-related	130	152	150	210	192	227	198	140	177	190	152
Not related to vessel casualties	579	525	607	524	602	551	505	504	594	559	464
Recreational boating	4,612	4,315	4,355	4,274	4,062	3,888	3,363	3,451	4,474	3,673	3,331

NOTES: *Air* injuries include all injuries classified as serious. *U.S. air carriers* includes all carriers who operate under 14 CFR 121, all scheduled and nonscheduled service. *Commuter carriers* include all scheduled service operating under 14 CFR 135. *On-demand air taxi* includes all nonscheduled service operating under 14 CFR 135. *General aviation* includes all operations other than those operating under 14 CFR 121 and 14 CFR 135.

Highway numbers are not actual counts, but estimates of the actual counts. The estimates are calculated from data obtained from a nationally representative sample of crashes collected through NHTSA's General Estimates System (GES). Estimates are rounded to the nearest 1,000. Estimates less than 500 indicate that the sample size was too small to produce a meaningful estimate and should be rounded to 0.

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

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

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

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

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

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

Injuries occurring at highway-rail crossings, listed under transit, result from operations of public transit rail modes including commuter rail. Data for injuries at light rail crossings are: 1998 (42); 1999 (148); 2000 (111); 2001 (54); 2002 (76); 2003 (56); 2004 (62); 2005 (138); 2006 (44); 2007 (139); 2008 (86).

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

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

SOURCES: **Air**: National Transportation Safety Board; **Highway**: National Highway Traffic Safety Administration; **Pipeline**: Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety; **Railroad**: Federal Railroad Administration; **Transit**: Federal Transit Administration; **Waterborne**: U.S. Department of Homeland Security, United States Coast Guard as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 2-2, available at http://www.bts.gov/publications/national_transportation_statistics/ as of July 2010.

TABLE 1-1-5 Transportation Accidents by Mode: 1998–2008

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Air	2,040	2,043	1,985	1,852	1,823	1,869	1,717	1,781	1,608	1,743	1,650
U.S. air carrier	50	51	56	46	41	54	30	40	33	28	28
Commuter carrier	8	13	12	7	7	2	4	6	3	3	7
On-demand air taxi	77	74	80	72	60	73	66	65	52	62	56
General aviation	1,905	1,905	1,837	1,727	1,715	1,740	1,617	1,670	1,520	1,650	1,559
Highway	6,335,000	6,279,000	6,394,000	6,323,000	6,316,000	6,328,000	6,181,000	6,159,000	5,973,000	6,024,000	5,811,000
Passenger car	5,146,124	4,915,734	4,926,243	4,831,842	4,802,056	4,746,620	4,557,453	4,498,869	4,341,688	U	U
Motorcycle	54,477	57,322	68,783	73,342	76,004	79,131	85,557	100,686	101,474	U	U
Truck, light	2,866,729	3,079,617	3,207,738	3,254,105	3,272,326	3,345,367	3,370,062	3,381,985	3,355,291	U	U
Truck, large	391,807	452,444	437,861	409,372	416,477	436,161	399,156	423,016	367,920	U	U
Bus	53,385	62,591	55,594	54,264	57,958	57,674	52,148	50,427	51,554	U	U
Pipeline	389	339	380	341	333	371	441	495	408	404	430
Hazardous liquid pipeline	153	167	146	130	150	133	145	143	120	119	139
Gas pipeline	236	172	234	211	183	238	296	352	288	285	291
Railroad	6,083	6,257	6,485	6,260	5,815	5,996	6,472	6,332	5,938	5,458	4,866
Highway-rail grade crossing	3,508	3,489	3,502	3,237	3,077	2,977	3,085	3,064	2,997	2,771	2,405
Railroad	2,575	2,768	2,983	3,023	2,738	3,019	3,387	3,268	2,941	2,687	2,461
Transit	23,937	23,310	24,261	23,891	13,968	7,793	7,842	8,151	8,851	9,398	4,117
Highway-rail grade crossing	106	140	148	101	190	125	178	148	141	174	114
Transit	23,831	23,170	24,113	23,790	13,778	7,668	7,664	8,003	8,710	9,224	4,003
Waterborne	13,828	13,457	13,143	11,377	11,713	10,601	9,866	9,946	10,367	U	U
Vessel-related	5,767	5,526	5,403	4,958	6,008	5,163	4,962	4,977	5,400	U	U
Recreational boating	8,061	7,931	7,740	6,419	5,705	5,438	4,904	4,969	4,967	5,191	4,789

KEY: U = data are unavailable.

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

For *Highway* totals the U.S. Department of Transportation, National Highway Traffic Safety Administration uses the term "crash" instead of accident in its highway safety data. Highway crashes often involve more than one motor vehicle, hence "total highway crashes" is smaller than the sum of the components. Estimates of highway crashes are rounded to the nearest thousand in the source document. Highway numbers are not actual counts, but estimates of the actual counts. The estimates are calculated from data obtained from a nationally representative sample of crashes collected through NHTSA's General Estimates System (GES). Estimates should be rounded to the nearest 1,000. Estimates less than 500 indicate that the sample size was too small to produce a meaningful estimate and should be rounded to 0. Large trucks are defined as trucks over 10,000 pounds gross vehicle weight rating, including single-unit trucks and truck tractors. Light trucks are defined as trucks of 10,000 pounds gross vehicle weight rating or less, including pickups, vans, truck-based station wagons, and utility vehicles.
Railroad total includes Amtrak. Accidents and incidents resulting from freight and passenger rail operations including commuter rail. *Highway-rail grade* crossing total includes accidents and incidents occurring at highway-rail crossings resulting from freight and passenger rail operations including commuter rail. *Railroad* includes only train accidents. The Federal Railroad Administration defines a grade crossing as a location where a public highway, road, street, or private roadway, including associated sidewalks and pathways, crosses one or more railroad tracks at grade. The Federal Transit Administration defines two types of grade crossings: (1) At grade, mixed, and cross traffic crossings, meaning railway right-of-way over which other traffic moving in the same direction or other cross directions may pass. This includes city street right-of-way. (2) At grade with cross traffic crossings, meaning railway right-of-way over which no other traffic may pass, except to cross at grade-level crossings. This can include median strip rights-of-way with grade level crossings at intersecting streets.
Transit accident figures include collisions with vehicles, objects, and people, derailments / vehicles going off the road of Directly Operated (DO) modes only. Accident figures do not include fires and personal casualties. The drop in the number of accidents in 2002 is due largely to a change in definitions by the Federal Transit Administration, particularly the definition of injuries. Only injuries requiring immediate medical treatment away from the scene now qualify as reportable. Previously, any injury was reportable. Highway-rail grade crossing for transit includes accidents occurring at highway-rail grade crossings resulting from operations of public transit rail modes including commuter rail. Data for light rail crossings are: 1998 (66); 1999 (103); 2000 (106); 2001 (54); 2002 (112); 2003 (66); 2004 (107); 2005 (81); 2006 (74). 2007 and 2008 data for light rail crossings are unavailable. Transit only includes accidents occurring at highway-rail grade crossings resulting from operations of public transit rail modes excluding commuter rail.

SOURCES: **Air**: National Transportation Safety Board; **Highway**: National Highway Traffic Safety Administration; **Pipeline**: Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety; **Railroad**: Federal Railroad Administration; **Transit**: Federal Transit Administration; **Waterborne**: U.S. Department of Homeland Security, United States Coast Guard, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 2-3, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-1-6 Hazardous Materials Transportation Incidents: 1998-2009

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Highway	13,108	14,953	15,063	15,804	13,502	13,594	13,071	13,460	17,153	16,905	14,780	12,680
Accident related	277	331	329	357	319	300	283	321	302	306	286	222
Injuries	151	218	164	109	118	105	155	179	192	161	149	144
Fatalities	13	9	16	9	9	15	13	24	6	10	8	4
Rail	989	1073	1058	899	870	802	765	745	702	750	749	640
Accident related	52	65	62	54	41	42	46	51	44	52	26	37
Injuries	22	35	82	46	14	13	122	693	24	56	63	38
Fatalities	0	0	0	3	1	0	3	10	0	0	1	1
Air	1,387	1,582	1,419	1,083	732	750	993	1,655	2,408	1,554	1,278	1,357
Accident related	3	2	3	2	2	0	0	9	7	7	8	2
Injuries	20	12	5	13	4	1	11	78	2	8	7	10
Fatalities	0	0	0	0	0	0	0	0	0	0	0	0
Water	11	8	17	6	10	10	17	69	68	61	98	88
Accident related	0	0	0	0	0	0	0	0	0	0	0	0
Injuries	2	0	0	0	0	0	0	0	15	3	0	0
Fatalities	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline												
Liquid	140	147	135	108	133	123	134	129	106	107	115	100
Injuries	6	20	4	10	0	5	16	2	2	10	2	4
Fatalities	2	4	1	0	1	0	5	2	0	4	2	4
Natural gas distribution	97	88	98	69	65	103	103	80	60	76	72	77
Injuries	64	80	59	46	44	58	37	38	28	33	56	49
Fatalities	18	16	22	5	10	11	18	11	16	9	6	10
Gas Gathering	7	2	3	6	4	3	12	18	12	10	15	10
Injuries	0	0	2	0	1	0	1	2	1	0	0	0
Fatalities	0	0	0	0	0	0	0	0	0	0	0	0
Gas Transmission and Gathering	58	40	57	56	60	73	74	129	90	85	82	70
Injuries	11	8	18	5	5	8	3	7	4	7	5	11
Fatalities	1	2	15	2	1	1	0	0	3	2	0	0
Natural gas transmission	51	38	54	50	56	70	62	111	78	75	67	60
Injuries	11	8	16	5	4	8	2	5	3	7	5	11
Fatalities	1	2	15	2	1	1	0	0	3	2	0	0

NOTES: *Accident related* excludes human errors, package failures, and unreported cases. *Water* data are for incidents involving packaged materials only and do not include incidents where the vessel is the container (e.g., a barge or oil tanker). Nonpipeline reporting requirements changed in 2002. In previous years, carriers were exclusively responsible for reporting hazardous materials release incidents. In 2005, PHMSA expanded the reporting requirements to include: reports by person(s) in physical possession of a hazardous material at the time an incident occurs during transport; reports on nonrelease incidents such as structural damage to cargo tanks specified for 1,000 gallons or more and undeclared shipments of hazardous materials.

Pipeline data are derived from three unique data sets, and a comprehensive total for pipeline incidents is not applicable. As of March 2010, the secondary cause designations of incidents in these reports have been updated and improved. Please note that secondary cause category counts and distributions have changed as a result of these improvements and also as a result of preparations for new accident/incident reporting forms which became effective January 1, 2010.

SOURCES: **Highway, Rail, Air, and Water**: U.S. Department of Transportation (USDOT), Pipeline and Hazardous Materials Safety Administration (PHMSA), *Incident Statistics*, available at http://www.phmsa.dot.gov/hazmat/library/data-stats/incidents as of December 2009; **Pipeline**: USDOT, PHMSA, Office of Pipeline Safety, *Pipeline Statistics*, available at http://ops.dot.gov/stats/stats.htm as of July 2010.

TABLE 1-1-7 Top 20 Reported Hazardous Material Incidents by Material: 2009

Rank	Commodity Name	Hazard Class	Incidents
1	Paint or Paint-Related Material	Flammable-Combustible Liquid	1,355
2	Paint-Related Material (including paint thinning, drying, removing or reducing compound)	Flammable-Combustible Liquid	1,070
3	Flammable Liquids, N.O.S.	Flammable-Combustible Liquid	800
4	Paint (including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler, and liquid lacquer base)	Combustible Liquid	612
5	Corrosive Liquids, N.O.S.	Corrosive Material	601
6	Isopropanol	Flammable-Combustible Liquid	481
7	Sodium Hydroxide Solution	Corrosive Material	412
8	Fire Extinguishers	Nonflammable Compressed Gas	320
9	Hydrochloric Acid Solution	Corrosive Material	319
10	Corrosive Liquid, Basic, Inorganic	Corrosive Material	318
11	Printing Ink, Flammable	Flammable-Combustible Liquid	280
12	Resin Solution, Flammable	Flammable-Combustible Liquid	262
13	Corrosive Liquid, Acidic, Inorganic	Corrosive Material	248
14	Methanol	Flammable-Combustible Liquid	236
15	Consumer Commodity	Other Regulated Material, Class D	226
16	Alcohols, N.O.S.	Flammable-Combustible Liquid	222
17	Potassium Hydroxide Solution	Corrosive Material	221
18	Gasoline	Flammable-Combustible Liquid	217
19	Aerosols Flammable	Flammable Compressed Gas	189
20	Sulfuric Acid	Corrosive Material	179

KEY: N.O.S. = Not Otherwise Specified

NOTES: Due to multiple commodities being involved in a single incident, the totals above may not correspond to the totals in other reports. Reporting requirements and the 5800.1 form were changed as of Jan. 1, 2005. Reportable incidents now include all undeclared hazardous materials shipments and specification cargo tanks that receive damage to their lading retention systems while hauling hazardous materials.

SOURCE: U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, *Hazardous Materials Information System*, available at http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/2009comdrank.pdf as of July 2010.

TABLE 1-1-8 Prohibited Items Intercepted at Airport Screening Checkpoints: 2002–2008

	2002	2003	2004	2005	2006	2007	2008
Total prohibited items	**3,775,345**	**6,114,612**	**7,089,599**	**15,887,596**	**13,711,759**	**6,516,022**	**972,810**
Total firearms and incendiaries	80,268	494,806	694,299	401,047	115,775	91,039	117,102
Firearms	927	683	650	2,217	2,075	1,416	902
Incendiaries	79,341	494,123	693,649	398,830	113,700	89,623	116,200
Knives[a]	1,036,697	1,961,849	2,058,652	1,822,752	1,607,125	1,056,687	626,182
Box cutters[a]	32,788	20,991	22,350	21,315	15,999	11,908	6,284
Other cutting instruments[a]	1,846,207	2,973,413	3,567,731	3,276,691	163,419	101,387	59,459
Clubs and bats[a]	11,131	25,139	28,813	20,531	12,296	9,443	6,447
Other[a]	768,254	638,414	717,754	10,345,260	11,797,145	5,245,558	157,336

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

NOTES: 2002 data are April through December.

The large increase in 2005 and decrease in 2007 was primarily due to the prohibition of lighters on board from April 2005 to August 2007. Fluctuations in counts may be attributed to changes in definitions and regulations governing prohibited items.

Other cutting instruments include scissors, hatchets, swords, sabers, meat cleavers, ice axes, and picks. Effective Dec. 22, 2005, scissors less than 4 inches and tools less than 7 inches were no longer prohibited.

Knives include any length and type except round-bladed, butter, and plastic cutlery.
Clubs includes martial arts items, baseball bats, night sticks, hammers, pool cues, and billy clubs.

Firearms includes any weapon (including a starter gun) that is designed to or may readily be converted to expel a projectile by the action of an explosive, as well as spear guns, BB guns, flare pistols, compressed air guns, and stunning devices.

Other refers to tools, self-defense items, compressed gas cylinders, bleach, lighters, and certain sporting goods. Lighters (except for torch lighters and micro torches) were removed from the prohibited items list effective Aug. 4, 2007.

SOURCE: U.S. Department of Homeland Security, Transportation Security Administration, Office of Transportation Security Policy, personal communication, October 2009 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 2-16b, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-1-9 Transportation Worker Identification Credential (TWIC) Program

As of date	Pre-enrollments (cumulative)	Enrollments (cumulative)	As of date	Pre-enrollments (cumulative)	Enrollments (cumulative)
1/3/2009	774,395	782,382	5/9/2009	1,051,419	1,180,947
1/10/2009	798,315	808,894	5/16/2009	1,058,939	1,195,347
1/17/2009	822,752	838,121	5/23/2009	1,065,752	1,208,398
1/24/2009	842,928	863,696	5/30/2009	1,071,807	1,218,141
1/31/2009	861,148	889,245	6/6/2009	1,078,258	1,229,600
2/7/2009	878,790	913,890	6/13/2009	1,084,485	1,240,079
2/14/2009	895,286	938,291	6/20/2009	1,090,586	1,250,605
2/21/2009	910,791	960,688	6/27/2009	1,095,906	1,259,706
2/28/2009	926,193	983,020	7/4/2009	1,100,355	1,266,484
3/7/2009	941,421	1,004,795	7/11/2009	1,105,484	1,275,211
3/14/2009	955,892	1,026,434	7/18/2009	1,110,587	1,283,616
3/21/2009	970,091	1,046,415	7/25/2009	1,115,660	1,292,040
3/28/2009	982,971	1,066,557	8/1/2009	1,120,296	1,300,542
4/4/2009	995,918	1,087,503	8/8/2009	1,125,059	1,308,474
4/11/2009	1,007,642	1,107,562	8/15/2009	1,130,040	1,316,319
4/18/2009	1,022,052	1,130,077	8/22/2009	1,134,623	1,323,908
4/25/2009	1,033,294	1,148,654	8/29/2009	1,139,851	1,331,816
5/2/2009	1,043,115	1,165,195	9/5/2009	1,144,731	1,339,631
			As of the week of 09/05/09:		
			No. TWIC cards printed		1,342,392
			No. TWIC cards activated		1,206,402
			Avg. Enrollment time		8.84 mins
			No. Enrollment centers open		138

NOTES: Transportation Worker Identification Credential (TWIC) is a common identification credential for all personnel requiring unescorted access to secure areas of facilities and vessels regulated by the Maritime Transportation Security Act and all mariners holding Coast Guard-issued credentials. The Transportation Security Administration will issue workers a tamper-resistant "Smart Card" containing the worker's biometric (fingerprint template) to allow for a positive link between the card itself and the individual.

The enrollment process consists of the following components: optional pre-enrollment, in-person enrollment, security threat assessment and notification of the results, and issuance of the TWIC to the applicant. The security threat assessment includes checks against criminal history records, terrorist watch lists, and immigration status. A robust appeals and waivers process is offered to applicants who may be initially determined to be ineligible to hold a TWIC.

Applicants may pre-enroll online to enter all of the biographic information required for the threat assessment and make an appointment at the enrollment center to complete the process (although appointments are not required). Then, applicants must visit the enrollment center where they will pay the enrollment fee, complete a TWIC Application Disclosure Form, provide biographic information and a complete set of fingerprints, and sit for a digital photograph. The applicant must bring identity verification documents to enrollment and non-U.S. citizen applicants must also bring along documentation to verify that they meet the immigration status requirements. These documents care scanned into the electronic enrollment record. There are a total of 138 enrollment centers nationwide, as well as employer-sponsored mobile enrollment capabilities deployed on a case-by-case basis. The applicant will be notified by email or phone, as specified during enrollment, when his/her credential is available at the enrollment center. The applicant must return to the same enrollment center to pick up his/her TWIC.

Visit http://www.tsa.gov/twic for additional information.

SOURCE: U.S. Department of Homeland Security, Transportation Security Administration, personal communication, March 2010.

TABLE 1-1-10 International Piracy and Armed Robbery at Sea: 1998-2009
Number of incidents

	Malacca Strait	Indian Ocean	East Africa	West Africa	South America	Mediterranean Sea	South China Sea	Total
1998	6	25	19	22	38	2	94	210
1999	37	51	16	36	29	4	136	309
2000	112	109	29	33	41	2	140	471
2001	58	86	22	58	23	2	120	370
2002	34	66	23	47	67	3	140	383
2003	36	96	22	67	72	1	154	452
2004	60	41	13	57	46	0	113	330
2005	20	51	47	23	26	0	97	266
2006	22	53	31	31	31	1	66	240
2007	12	40	60	60	25	3	67	282
2008	2	26	134	50	19	2	72	306
2009	NR	27	222	46	36	NR	71	402

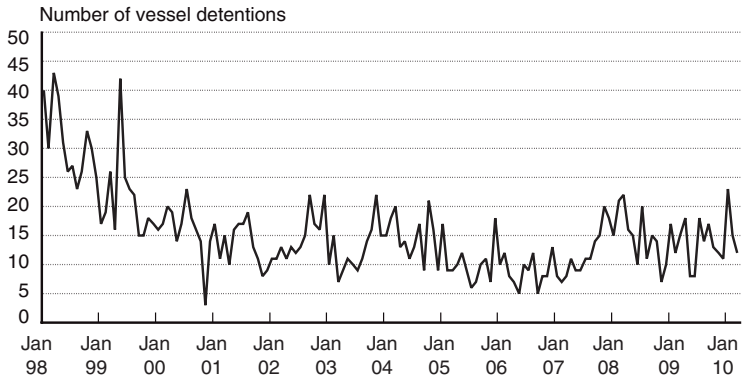
KEY: NR = no data reported.

NOTES: Incidents include attempts and threatening actions. Details may not add to totals because of missing categories.

SOURCE: International Maritime Organization, *Reports on Acts of Piracy and Armed Robbery Against Ships* (Annual Issues), available at http://www.imo.org/home.asp as of March 2010.

FIGURE 1-1-11 Vessel Detentions: January 1998–March 2010

Monthly data, not seasonally adjusted



SOURCE: U.S. Department of Homeland Security, U.S. Coast Guard, *IMO Reportable Detentions* (Washington, DC: Monthly Issues), available at http://homeport.uscg.mil/ and personal communication as of July 2010.

TABLE 1-1-11 Vessel Detentions: January 2008–March 2010

Monthly data, not seasonally adjusted

	Vessel detentions
January 2008	15
February 2008	21
March 2008	22
April 2008	16
May 2008	15
June 2008	10
July 2008	20
August 2008	11
September 2008	15
October 2008	14
November 2008	7
December 2008	10
January 2009	17
February 2009	12
March 2009	15
April 2009	18
May 2009	8
June 2009	8
July 2009	18
August 2009	14
September 2009	17
October 2009	13
November 2009	9
December 2009	11
January 2020	23
February 2010	15
March 2010	12

NOTES: The U.S. Coast Guard identifies vessels not in compliance with international conventions through examinations and boardings. If a vessel is not compliant, appropriate action is taken to eliminate any threat that vessels may pose to U.S. waters, ports, and citizens.

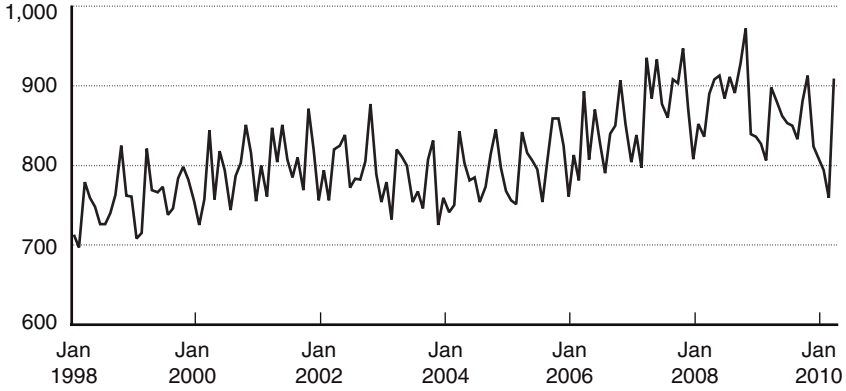
Examples of threats can include: oil leaks, improper repairs to lifeboats, inability to demonstrate proficiency in a fire drill, or failure to maintain document control.

SOURCE: U.S. Department of Homeland Security, U.S. Coast Guard, *IMO Reportable Detentions* (Washington, DC: Monthly Issues), available at http://homeport.uscg.mil/ and personal communication as of July 2010.

Livable Communities

FIGURE 1-2-1 Public Transit Ridership: January 1998–March 2010

Millions of unlinked trips



SOURCE: American Public Transportation Association, *Quarterly Transit Ridership Report* (Washington, DC: Quarterly Issues), available at http://www.apta.com/resources/statistics/Pages/ridershipreport.aspx as of June 2010.

TABLE 1-2-1 Public Transit Ridership: January 2008–March 2010

	Ridership (millions)
January 2008	852
February 2008	836
March 2008	890
April 2008	908
May 2008	913
June 2008	884
July 2008	911
August 2008	891
September 2008	929
October 2008	972
November 2008	839
December 2008	836
January 2009	827
February 2009	806
March 2009	898
April 2009	879
May 2009	862
June 2009	853
July 2009	850
August 2009	833
September 2009	881
October 2009	913
November 2009	824
December 2009	809
January 2010	794
February 2010	759
March 2010	909

NOTES: Public transportation includes transit bus, transit rail, commuter rail, trolleys, and several demand-responsive services. According to the American Public Transportation Association (APTA), an *unlinked transit passenger trip* is a trip on one transit vehicle regardless of the type of fare paid or transfer presented. A person riding only one vehicle from origin to destination takes one unlinked passenger trip; a person who transfers to a second vehicle takes two unlinked passenger trips; a person who transfers to a third vehicle takes three unlinked passenger trips. APTA estimates that the number of people riding transit on an average weekday is 45 percent of the number of unlinked transit passenger trips.

SOURCE: American Public Transportation Association, *Quarterly Transit Ridership Report* (Washington, DC: Quarterly Issues), available at http://www.apta.com/resources/statistics/Pages/ridershipreport.aspx as of June 2010.

TABLE 1-2-2 Airport, Ferry, and Intercity Rail Passenger Intermodal Connectivity
Number of facilities

	48 contiguous states	Alaska & Hawaii	Total
Airports	435	237	672
With intermodal connections	149	11	160
Without intermodal connections	286	226	512
Percent with connections	34.3%	4.6%	23.8%
Intercity rail stations	507	22	529
With intermodal connections	271	6	277
Without intermodal connections	236	16	252
Percent with connections	53.5%	27.3%	52.4%
Passenger ferry terminals	256	42	298
With intermodal connections	112	10	122
Without intermodal connections	144	32	176
Percent with connections	43.8%	23.8%	40.9%
Airports, ferry terminals, and intercity rail stations	1,198	301	1,499
With intermodal connections	532	27	559
Without intermodal connections	666	274	940
Percent with connections	44.4%	9.0%	37.3%

NOTES: *The Intermodal Passenger Connectivity Database* measures the connectivity between different modes of passenger transportation by counting the number of passenger transportation terminals and the availability of connections among the various scheduled public transportation modes at each facility. All identifiable regularly scheduled stopping locations, whether or not a terminal building is present, are considered terminals for this database. Data for *airports* and *intercity rail stations* was collected during 2006 and 2007, with *passenger ferry terminal* data collected in 2008 and 2009. Updating and collection of data for other modes is ongoing. When facilities of more than one mode are co-located, the facility for each mode is counted separately for purposes of total facilities.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Intermodal Passenger Connectivity Database*, January 2010.

TABLE 1-2-3 Number of Stations Served by Amtrak and Rail Transit: FY 1998–2008

	Amtrak	Rail transit
1998	508	2,524
1999	510	2,567
2000	515	2,595
2001	512	2,621
2002	515	2,784
2003	514	2,797
2004	517	2,909
2005	518	2,946
2006	503	2,985
2007	497	2,997
2008	524	3,027

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

SOURCES: **Rail Transit**: Federal Transit Administration; **Amtrak**: National Railroad Passenger Corporation (Amtrak), *Annual Report*, available at http://www.amtrak.com as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-7, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-2-4 Transit Rail Stations That Are ADA-Compliant by Service Type: 1998–2008
Number of stations

	Commuter rail	Heavy rail	Light rail	Other rail	Total number of ADA-compliant stations	Total number of stations	ADA-compliant stations (percent)
1998	500	258	290	2	1,050	2,675	39.3
1999	533	284	351	2	1,170	2,728	42.9
2000	552	340	384	2	1,278	2,777	46.0
2001	583	359	408	5	1,355	2,807	48.3
2002	624	366	458	9	1,457	2,786	52.3
2003	643	416	466	12	1,537	2,799	54.9
2004	666	428	589	12	1,695	2,911	58.2
2005	686	459	596	12	1,753	2,948	59.5
2006	712	479	635	12	1,838	2,987	61.5
2007	725	493	642	12	1,872	2,999	62.4
2008	753	508	665	12	1,938	3,029	64.0

KEY: ADA = Americans with Disabilities Act.

NOTES: *Other rail* includes monorail and (for 2001-2008 only) Alaska Railroad. Table does not include station data for automated guideway, jitney, and inclined plane transit services. Data may not add to total because of independent rounding.

ADA-compliant stations are those that are fully compliant with the ADA. Under the ADA, many older stations with elevators were given time, some to year 2020, for replacement or remodeling. In addition, they were given time to add ramps, tile strips along the platform, and communication equipment for full ADA compliance.

SOURCES: **1998–2001**: U.S. Department of Transportation (USDOT), Federal Transit Administration (FTA), personal communication, May 2005. **2002–2008**: USDOT, FTA, *National Transit Database, Data Tables*, table 21, available at http://www.ntdprogram.gov/ as of December 2009.

TABLE 1-2-5 Buses That Are ADA-Compliant: 1998–2007
Number

	Total number of buses	ADA-compliant buses	ADA-compliant buses (percent)
1998	60,830	46,278	76.1
1999	63,618	51,213	80.5
2000	65,324	54,585	83.6
2001	67,379	58,785	87.2
2002	68,418	64,407	94.1
2003	68,596	65,375	95.3
2004	68,789	67,454	98.1
2005	69,504	67,049	96.5
2006	70,227	68,880	98.1
2007	73,397	71,968	98.1

KEY: ADA = Americans with Disabilities Act.

SOURCE: U.S. Department of Transportation, Federal Transit Administration, *National Transit Summaries and Trends* (Annual Issues), p. 57, available at http://www.ntdprogram.gov/ntdprogram/data.htm as of Feb. 11, 2008 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-8, available at http://www.bts.gov/publications/national_transportation_statistics/ as of December 2009.

TABLE 1-2-6 How People Get to Work: 2008

	Number of workers (thousands)	Percentage of workers
Drives self	108,776	75.5
Carpool	15,402	10.7
Mass transportation[a]	7,170	5.0
Works at home	5,897	4.1
Walks only	4,061	2.8
Taxicab, motorcycle, or other means[b]	1,904	1.3
Bicycle	786	0.5
Total	**143,996**	**100.0**

[a] *Mass transportation* refers to bus, rail, streetcar, subway, or elevated trains.

[b] *Other means* include ferryboats, surface trains, and van service and other means not classified.

NOTE: Percents may not add to 100 due to rounding.

SOURCE: U.S. Department of Commerce, U.S. Census Bureau, *American Community Survey* (Washington, DC: Annual Issues), available at http://www.census.gov/acs/www/index.html as of December 2009 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-38, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-2-7 Departure Time: Leaving Home to Go to Work

	2004		2008	
	Number of workers (thousands)	Percent of workers	Number of workers (thousands)	Percent of workers
5:00 a.m. to 5:29 a.m.	4,254	3.4	5,009	3.6
5:30 a.m. to 5:59 a.m.	6,130	4.9	6,969	5.0
6:00 a.m. to 6:29 a.m.	11,197	8.9	12,285	8.9
6:30 a.m. to 6:59 a.m.	13,591	10.8	14,474	10.5
7:00 a.m. to 7:29 a.m.	18,648	14.8	20,420	14.8
7:30 a.m. to 7:59 a.m.	17,552	14.0	18,274	13.2
8:00 a.m. to 8:29 a.m.	13,771	10.9	14,793	10.7
8:30 a.m. to 8:59 a.m.	6,909	5.5	7,626	5.5
9:00 a.m. to 9:59 a.m.	7,388	5.9	8,336	6.0
10:00 a.m. to 10:59 a.m.	3,203	2.5	3,652	2.6
11:00 a.m. to 11:59 a.m.	1,436	1.1	1,720	1.2
12:00 p.m. to 3:59 p.m.	8,688	6.9	9,684	7.0
4:00 p.m. to 11:59 p.m.	8,307	6.6	9,180	6.6
12:00 a.m. to 4:59 a.m.	4,734	3.8	5,677	4.1
Total	**125,808**	**100.0**	**138,099**	**100.0**

NOTES: Percents may not add to 100 due to rounding. Workers are those aged 16 years and older who worked outside the home during the reference week and include members of the Armed Forces and civilians. For additional information, please refer to the American Community Survey's *2008 Subject Definitions*, available at http://www.census.gov/acs/.

SOURCE: U.S. Department of Commerce, U.S. Census Bureau, *American Community Survey* (Washington, DC: Annual Issues), table B08011, available at http://www.census.gov/acs/www/index.html as of September 2009.

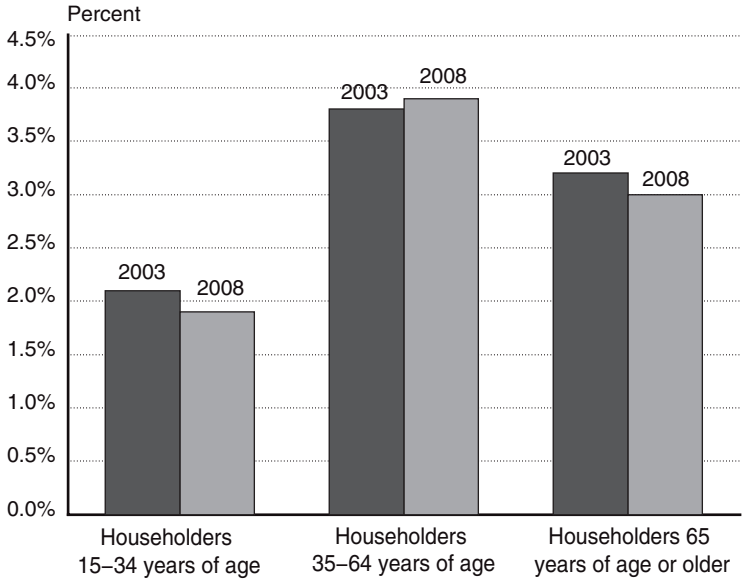
TABLE 1-2-8 Travel Time to Work: 2008
Thousands

	Number of people	Percent of population
Less than 10 Minutes	19,306	14.0
10-14 Minutes	19,922	14.4
15-19 Minutes	21,357	15.5
20-24 Minutes	20,130	14.6
25-29 Minutes	8,388	6.1
30-34 Minutes	18,574	13.4
35-44 Minutes	8,729	6.3
44-59 Minutes	10,379	7.5
More than 60 Minutes	11,314	8.2
Total	**138,099**	**100.0**

NOTE: Numbers may not add to total due to rounding.

SOURCE: U.S. Department of Commerce, U.S. Census Bureau, 2008 *American Community Survey* (Washington, DC: Annual Issues), Table B08012, available at http://www.census.gov/acs/www/ as of October 2009.

FIGURE 1-2-9 Percent of Households Without a Vehicle by Age of Householder: 2003 and 2008



SOURCE: U.S. Department of Commerce, U.S. Census Bureau, *American Community Survey* (Washington, DC: Annual Issues), table B25045, available at http://www.census.gov/acs/www/index.html as of September 2009.

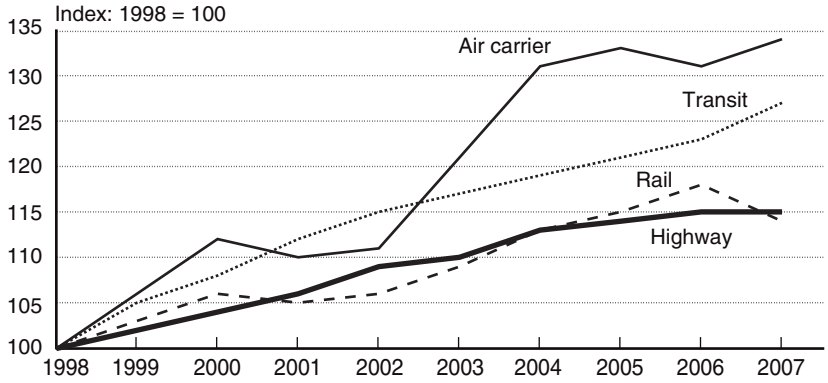
TABLE 1-2-9 Household Vehicle Availability: 2003 and 2008

	2003		2008	
	Number of households	Percent of all households	Number of households	Percent of all households
Householders 15-34 years of age				
Number of households without a vehicle	2,269	2.1	2,139	1.9
Number of households with 1 or more vehicles available	22,398	20.7	20,977	18.5
Householders 35-64 years of age				
Number of households without a vehicle	4,081	3.8	4,463	3.9
Number of households with 1 or more vehicles available	57,804	53.3	61,856	54.7
Householders 65 years of age or older				
Number of households without a vehicle	3,439	3.2	3,393	3.0
Number of households with 1 or more vehicles available	18,430	17.0	20,273	17.9
Total Number of households without a vehicle	**9,788**	**9.0**	**9,995**	**8.8**
Total Number of households with 1 or more vehicles available	**98,631**	**91.0**	**103,106**	**91.2**
Total number of households	**108,420**	**100.0**	**113,101**	**100.0**

NOTES: Details may not add to total due to rounding. One person in each household is designated as the householder. In most cases, this is the person, or one of the people, in whose name the home is owned, being bought, or rented and who is listed on line one of the survey questionnaire. If there is no such person in the household, any adult household member 15 years old and over could be designated as the householder. For additional information, please refer to the American Community Survey's *2008 Subject Definitions* that are available at http://www.census.gov/acs/.

SOURCE: U.S. Department of Commerce, U.S. Census Bureau, *American Community Survey* (Washington, DC: Annual Issues), table B25045, available at http://www.census.gov/acs/www/index.html as of September 2009.

FIGURE 1-2-10 Index of U.S. Vehicle-Miles: 1998–2007



SOURCES: **Air Carrier**: Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information; **Highway**: Federal Highway Administration; **Transit**: Federal Transit Administration; **Rail**: National Passenger Rail Corporation (Amtrak) and Association of American Railroads as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-32, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-2-10 U.S. Vehicle-Miles: 1998–2007

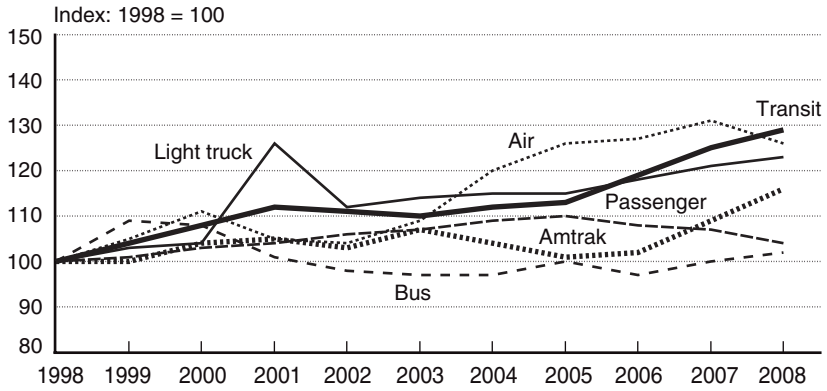
Millions

Year	Air carrier, large certificated, domestic, all services	Highway	Transit (car-miles)	Rail (train-miles)
1998	5,035	2,631,522	3,347	508
1999	5,332	2,691,056	3,500	524
2000	5,664	2,746,925	3,605	539
2001	5,548	2,797,287	3,735	536
2002	5,589	2,855,508	3,855	537
2003	6,087	2,890,450	3,915	553
2004	6,592	2,964,788	3,972	572
2005	6,716	2,989,430	4,054	584
2006	6,605	3,014,370	4,127	599
2007	6,732	3,029,821	4,238	581

NOTES: *Transit* rail modes are measured in car-miles—the movement of 1 vehicle the distances of 1 mile. This differs from a train-mile—the movement of a train, which can consist of multiple vehicles (cars), the distance of 1 mile.

SOURCES: **Air Carrier**: Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information; **Highway**: Federal Highway Administration; **Transit**: Federal Transit Administration; **Rail**: National Passenger Rail Corporation (Amtrak) and Association of American Railroads as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-32, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

FIGURE 1-2-11 Index of U.S. Passenger-Miles: 1998–2008
Passenger miles



SOURCES: **Air Carrier**: Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information; **Highway:** Federal Highway Administration; **Transit:** Federal Transit Administration; **Amtrak:** National Railroad Passenger Corporation (Amtrak) and Association of American Railroads as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-37, available at http://www.bts.gov/publications/national_transportation_statistics/ as of April 2010.

TABLE 1-2-11 U.S. Passenger-Miles: 1998–2008
Millions

	Air, certificated, domestic, all services	Passenger car	Light truck	Bus	Transit	Amtrak
1998	463,262	2,463,828	68,021	148,558	41,605	5,304
1999	488,357	2,494,870	70,304	162,445	43,279	5,330
2000	516,129	2,544,457	70,500	160,919	45,100	5,498
2001	486,506	2,556,481	85,489	150,042	46,508	5,559
2002	483,409	2,620,389	75,866	145,124	46,096	5,468
2003	505,226	2,641,885	77,757	143,801	45,677	5,680
2004	557,892	2,685,827	78,441	144,188	46,546	5,511
2005	583,758	2,699,305	78,496	147,992	47,125	5,381
2006	588,455	2,671,044	80,344	143,816	49,504	5,410
2007	607,546	2,642,498	82,014	147,985	51,873	5,784
2008	583,506	2,553,043	83,951	150,827	53,712	6,179

NOTES: *Passenger car* does not include motorcycle data. *Light truck* includes pickup trucks, sport utility vehicles, and vans. Bus and demand response are included in both *Bus* and *Transit*, which results in some double counting. *Amtrak* does not include contract commuter passengers. The data above may not be consistent with other sources, particularly data that are revised on an irregular or frequent basis.

SOURCES: **Air Carrier**: Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information; **Highway**: Federal Highway Administration; **Transit**: Federal Transit Administration; **Amtrak**: National Railroad Passenger Corporation (Amtrak) and Association of American Railroads as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-37, available at http://www.bts.gov/publications/national_transportation_statistics/ as of April 2010.

TABLE 1-2-12 Travel Time Index by Metro Area: 1998 to 2007

Travel Time Index

Urban areas	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Very large										
Atlanta, GA	1.29	1.29	1.31	1.31	1.33	1.33	1.33	1.35	1.34	1.35
Boston, MA-NH-RI	1.22	1.21	1.22	1.23	1.25	1.25	1.27	1.27	1.27	1.26
Chicago, IL-IN	1.34	1.34	1.34	1.35	1.41	1.43	1.44	1.47	1.45	1.43
Dallas-Fort Worth-Arlington, TX	1.19	1.21	1.23	1.23	1.25	1.27	1.30	1.32	1.33	1.32
Detroit, MI	1.28	1.29	1.28	1.29	1.30	1.31	1.30	1.29	1.29	1.29
Houston, TX	1.23	1.25	1.26	1.28	1.30	1.30	1.32	1.34	1.34	1.33
Los Angeles-Long Beach-Santa Ana, CA	1.45	1.46	1.46	1.48	1.47	1.47	1.48	1.50	1.51	1.49
Miami, FL	1.26	1.30	1.34	1.36	1.37	1.38	1.38	1.38	1.37	1.37
New York-Newark, NY-NJ-CT	1.27	1.30	1.29	1.29	1.30	1.33	1.37	1.39	1.38	1.37
Philadelphia, PA-NJ-DE-MD	1.23	1.23	1.23	1.26	1.27	1.26	1.27	1.28	1.27	1.28
Phoenix, AZ	1.22	1.25	1.26	1.28	1.25	1.26	1.27	1.31	1.29	1.30
San Francisco-Oakland, CA	1.32	1.32	1.36	1.36	1.37	1.37	1.39	1.42	1.44	1.42
Seattle, WA	1.30	1.30	1.28	1.27	1.27	1.30	1.29	1.31	1.30	1.29
Washington, DC-VA-MD	1.31	1.33	1.33	1.36	1.37	1.38	1.38	1.37	1.37	1.39
Large										
Austin, TX	1.21	1.23	1.24	1.27	1.27	1.28	1.29	1.31	1.29	1.29
Baltimore, MD	1.19	1.20	1.22	1.24	1.28	1.29	1.29	1.30	1.31	1.31
Buffalo, NY	1.05	1.06	1.07	1.07	1.07	1.08	1.08	1.08	1.08	1.07
Charlotte, NC-SC	1.17	1.19	1.22	1.22	1.24	1.24	1.25	1.24	1.24	1.25
Cincinnati, OH-KY-IN	1.19	1.18	1.19	1.18	1.19	1.19	1.18	1.18	1.18	1.18
Cleveland, OH	1.11	1.12	1.12	1.10	1.09	1.09	1.10	1.09	1.09	1.08
Columbus, OH	1.17	1.17	1.16	1.17	1.17	1.18	1.20	1.19	1.19	1.18
Denver-Aurora, CO	1.27	1.29	1.30	1.32	1.30	1.30	1.30	1.32	1.31	1.31
Indianapolis, IN	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.21	1.21
Jacksonville, FL	1.17	1.17	1.17	1.17	1.19	1.21	1.22	1.21	1.22	1.23
Kansas City, MO-KS	1.08	1.10	1.09	1.09	1.09	1.09	1.08	1.08	1.08	1.07
Las Vegas, NV	1.25	1.26	1.26	1.27	1.28	1.30	1.31	1.31	1.30	1.30
Memphis, TN-MS-AR	1.12	1.12	1.13	1.13	1.14	1.14	1.14	1.13	1.13	1.12
Milwaukee, WI	1.13	1.15	1.15	1.15	1.15	1.14	1.14	1.14	1.12	1.13
Minneapolis-St. Paul, MN	1.22	1.23	1.24	1.26	1.24	1.24	1.24	1.26	1.25	1.24
New Orleans, LA	1.16	1.16	1.15	1.15	1.15	1.15	1.15	1.16	1.17	1.17
Orlando, FL	1.31	1.31	1.32	1.33	1.32	1.31	1.30	1.30	1.31	1.30
Pittsburgh, PA	1.09	1.10	1.09	1.10	1.10	1.09	1.10	1.09	1.09	1.09
Portland, OR-WA	1.24	1.26	1.27	1.28	1.27	1.27	1.28	1.29	1.29	1.29
Providence, RI-MA	1.12	1.13	1.14	1.14	1.15	1.16	1.17	1.16	1.15	1.17
Raleigh-Durham, NC	1.12	1.13	1.13	1.14	1.16	1.16	1.17	1.18	1.16	1.17
Riverside-San Bernardino, CA	1.20	1.22	1.24	1.24	1.26	1.29	1.32	1.35	1.36	1.36
Sacramento, CA	1.22	1.23	1.25	1.27	1.28	1.31	1.32	1.32	1.33	1.32
San Antonio, TX	1.15	1.18	1.21	1.20	1.20	1.21	1.24	1.24	1.23	1.23
San Diego, CA	1.25	1.29	1.30	1.33	1.36	1.36	1.39	1.39	1.38	1.37
San Jose, CA	1.25	1.29	1.34	1.34	1.33	1.34	1.32	1.35	1.37	1.36
St. Louis, MO-IL	1.19	1.20	1.20	1.18	1.18	1.17	1.16	1.16	1.16	1.13
Tampa-St. Petersburg, FL	1.25	1.25	1.25	1.26	1.27	1.28	1.29	1.28	1.30	1.31
Virginia Beach, VA	1.19	1.19	1.16	1.18	1.18	1.19	1.18	1.18	1.18	1.18

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TABLE 1-2-12 Travel Time Index by Metro Area: 1998 to 2007 *(continued)*

Travel Time Index

Urban areas	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Medium										
Akron, OH	1.08	1.08	1.08	1.08	1.08	1.07	1.08	1.08	1.08	1.07
Albany-Schenectady, NY	1.05	1.05	1.05	1.06	1.06	1.07	1.08	1.08	1.09	1.10
Albuquerque, NM	1.18	1.19	1.17	1.16	1.14	1.14	1.16	1.17	1.17	1.18
Allentown-Bethlehem, PA-NJ	1.17	1.15	1.15	1.15	1.15	1.14	1.14	1.14	1.13	1.14
Bakersfield, CA	1.05	1.05	1.05	1.05	1.06	1.07	1.08	1.09	1.09	1.09
Birmingham, AL	1.12	1.12	1.13	1.13	1.13	1.14	1.15	1.15	1.15	1.15
Bridgeport-Stamford, CT-NY	1.19	1.20	1.21	1.21	1.22	1.23	1.22	1.23	1.25	1.25
Colorado Springs, CO	1.11	1.13	1.14	1.15	1.14	1.13	1.12	1.14	1.14	1.13
Dayton, OH	1.12	1.13	1.13	1.11	1.10	1.10	1.11	1.10	1.10	1.09
El Paso, TX-NM	1.08	1.10	1.12	1.12	1.12	1.12	1.13	1.13	1.13	1.12
Fresno, CA	1.13	1.14	1.15	1.13	1.13	1.12	1.12	1.12	1.13	1.13
Grand Rapids, MI	1.11	1.12	1.11	1.11	1.11	1.11	1.11	1.10	1.10	1.10
Hartford, CT	1.10	1.11	1.11	1.10	1.10	1.10	1.11	1.11	1.12	1.12
Honolulu, HI	1.19	1.19	1.18	1.18	1.18	1.19	1.20	1.22	1.23	1.24
Indio-Cathedral City-Palm Springs, CA	1.11	1.11	1.10	1.10	1.10	1.12	1.13	1.15	1.16	1.14
Lancaster-Palmdale, CA	1.06	1.06	1.07	1.07	1.08	1.09	1.09	1.10	1.10	1.10
Louisville, KY-IN	1.20	1.21	1.21	1.19	1.21	1.22	1.23	1.23	1.22	1.20
Nashville-Davidson, TN	1.13	1.14	1.15	1.16	1.17	1.17	1.17	1.17	1.16	1.15
New Haven, CT	1.10	1.11	1.11	1.12	1.11	1.11	1.10	1.11	1.11	1.11
Oklahoma City, OK	1.08	1.10	1.09	1.10	1.10	1.09	1.09	1.09	1.10	1.12
Omaha, NE-IA	1.12	1.13	1.14	1.15	1.16	1.16	1.16	1.16	1.17	1.16
Oxnard-Ventura, CA	1.12	1.15	1.16	1.18	1.19	1.19	1.21	1.23	1.23	1.24
Poughkeepsie-Newburgh, NY	1.07	1.07	1.07	1.07	1.08	1.08	1.09	1.09	1.09	1.09
Richmond, VA	1.08	1.08	1.07	1.08	1.08	1.08	1.09	1.09	1.09	1.09
Rochester, NY	1.05	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.07	1.06
Salt Lake City, UT	1.17	1.19	1.21	1.22	1.24	1.24	1.21	1.19	1.18	1.19
Sarasota-Bradenton, FL	1.17	1.19	1.18	1.18	1.18	1.18	1.19	1.19	1.20	1.19
Springfield, MA-CT	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.07	1.06
Toledo, OH-MI	1.09	1.10	1.10	1.10	1.10	1.09	1.10	1.09	1.09	1.08
Tucson, AZ	1.16	1.16	1.18	1.19	1.20	1.22	1.22	1.23	1.25	1.24
Tulsa, OK	1.09	1.09	1.09	1.10	1.10	1.10	1.09	1.09	1.10	1.10
Small										
Anchorage, AK	1.06	1.06	1.06	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Beaumont, TX	1.03	1.04	1.04	1.04	1.05	1.04	1.05	1.05	1.05	1.05
Boulder, CO	1.10	1.10	1.10	1.10	1.09	1.09	1.09	1.10	1.11	1.09
Brownsville, TX	1.05	1.06	1.06	1.07	1.07	1.06	1.07	1.06	1.07	1.07
Cape Coral, FL	1.12	1.11	1.11	1.12	1.12	1.13	1.12	1.13	1.15	1.17
Charleston-North Charleston, SC	1.15	1.16	1.16	1.16	1.16	1.17	1.18	1.17	1.18	1.20
Columbia, SC	1.05	1.06	1.06	1.06	1.07	1.07	1.07	1.07	1.08	1.10
Corpus Christi, TX	1.04	1.05	1.04	1.05	1.05	1.05	1.05	1.06	1.05	1.05
Eugene, OR	1.06	1.08	1.09	1.08	1.08	1.09	1.08	1.09	1.08	1.08
Knoxville, TN	1.13	1.13	1.13	1.12	1.12	1.12	1.11	1.11	1.11	1.12
Laredo, TX	1.07	1.07	1.08	1.08	1.08	1.10	1.09	1.09	1.10	1.12
Little Rock, AR	1.05	1.06	1.06	1.07	1.05	1.06	1.07	1.07	1.08	1.09
Pensacola, FL-AL	1.09	1.09	1.10	1.10	1.10	1.11	1.11	1.11	1.13	1.13
Salem, OR	1.08	1.08	1.09	1.11	1.11	1.09	1.09	1.09	1.10	1.10

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TABLE 1-2-12 Travel Time Index by Metro Area: 1998 to 2007 *(continued)*

Travel Time Index

Urban areas	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Spokane, WA	1.06	1.06	1.06	1.05	1.05	1.05	1.05	1.04	1.04	1.05
Wichita, KS	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
439-Area average[a]	1.21	1.22	1.22	1.23	1.24	1.24	1.25	1.26	1.25	1.25
90-Area average[a]	1.24	1.25	1.25	1.26	1.27	1.27	1.28	1.29	1.29	1.29
Very large area average[a]	1.30	1.31	1.32	1.33	1.34	1.35	1.36	1.38	1.38	1.37
Large area average[a]	1.19	1.20	1.21	1.22	1.22	1.23	1.23	1.24	1.24	1.23
Medium area average[a]	1.12	1.13	1.13	1.13	1.13	1.13	1.14	1.14	1.14	1.14
Small area average[a]	1.08	1.08	1.08	1.08	1.08	1.09	1.09	1.08	1.09	1.10

[a]Averages weighted by vehicle-miles traveled.

NOTES: The Travel Time Index is calculated as the ratio of travel time in the peak period to the travel time at free-flow conditions. A value of 1.35 indicates a 20 minute free-flow trip takes 27 minutes in the peak i.e., a 35% increase in travel time during peak travel times over travel times during free flow conditions. Free-flow speeds (60 mph on freeways and 35 mph on principal arterials) are used as comparison threshold.

Very large urban areas have a population of over 3 million. *Large urban areas* have a population of over 1 million and less than 3 million. *Medium urban areas* have a population of over 500,000 and less than 1 million. *Small urban areas* have a population of less than 500,000.

The *2009 Urban Mobility Report* methodology and data sources have been significantly revised and the total number of cities reported rose from 85 to 90; these figures are not comparable to those in past editions of TSAR.

SOURCE: Texas A&M University, Texas Transportation Institute, *2009 Urban Mobility Report* (College Station, TX: 2009), available at http://mobility.tamu.edu as of August 2009 as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-64, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-2-13 Average Hours of Annual Delay per Traveler: 1982 to 2007

Hours

Urban areas	1982	1997	2006	2007
Very Large				
Atlanta, GA	19	56	59	57
Boston, MA-NH-RI	12	32	44	43
Chicago, IL-IN	15	35	43	41
Dallas-Fort Worth-Arlington, TX	10	34	55	53
Detroit, MI	24	48	53	52
Houston, TX	29	39	56	56
Los Angeles-Long Beach-Santa Ana, CA	44	69	72	70
Miami, FL	15	35	48	47
New York-Newark, NY-NJ-CT	12	32	45	44
Philadelphia, PA-NJ-DE-MD	16	28	38	38
Phoenix, AZ	35	35	45	44
San Francisco-Oakland, CA	23	47	58	55
Seattle, WA	12	52	45	43
Washington, DC-VA-MD	16	52	59	62
Large				
Austin, TX	10	32	39	39
Baltimore, MD	11	32	44	44
Buffalo, NY	3	7	12	11
Charlotte, NC-SC	10	25	39	40
Cincinnati, OH-KY-IN	5	29	26	25
Cleveland, OH	3	18	13	12
Columbus, OH	4	31	32	30
Denver-Aurora, CO	16	41	48	45
Indianapolis, IN	19	56	42	39
Jacksonville, FL	17	39	38	39
Kansas City, MO-KS	3	19	17	15
Las Vegas, NV	10	34	43	44
Memphis, TN-MS-AR	6	23	28	25
Milwaukee, WI	7	19	18	18
Minneapolis-St. Paul, MN	6	38	40	39
New Orleans, LA	17	21	20	20
Orlando, FL	18	59	55	53
Pittsburgh, PA	11	18	15	15
Portland, OR-WA	13	35	38	37
Providence, RI-MA	3	15	26	29
Raleigh-Durham, NC	8	31	32	34
Riverside-San Bernardino, CA	5	26	45	44
Sacramento, CA	15	35	42	39
San Antonio, TX	6	24	40	38
San Diego, CA	12	36	54	52
San Jose, CA	23	44	55	53
St. Louis, MO-IL	12	39	30	26
Tampa-St. Petersburg, FL	24	37	48	47
Virginia Beach, VA	14	31	30	29

Continued on next page

TABLE 1-2-13 Average Hours of Annual Delay per Traveler: 1982 to 2007 *(continued)*

Hours

Urban areas	1982	1997	2006	2007
Medium				
Akron, OH	2	13	11	9
Albany-Schenectady, NY	3	9	17	19
Albuquerque, NM	11	33	33	34
Allentown-Bethlehem, PA-NJ	9	25	21	22
Bakersfield, CA	2	7	13	12
Birmingham, AL	8	24	33	32
Bridgeport-Stamford, CT-NY	9	24	33	33
Colorado Springs, CO	4	16	26	23
Dayton, OH	10	22	17	14
El Paso, TX-NM	3	10	21	19
Fresno, CA	12	18	20	20
Grand Rapids, MI	6	21	23	22
Hartford, CT	4	15	21	21
Honolulu, HI	14	22	24	26
Indio-Cathedral City-Palm Springs, CA	20	15	15	13
Lancaster-Palmdale, CA	12	6	5	6
Louisville, KY-IN	18	39	40	38
Nashville-Davidson, TN	20	36	38	37
New Haven, CT	5	15	19	19
Oklahoma City, OK	5	20	24	27
Omaha, NE-IA	5	19	28	26
Oxnard-Ventura, CA	4	21	36	38
Poughkeepsie-Newburgh, NY	10	14	18	17
Richmond, VA	6	21	20	20
Rochester, NY	3	8	9	10
Salt Lake City, UT	8	28	26	27
Sarasota-Bradenton, FL	14	22	27	25
Springfield, MA-CT	7	10	12	11
Toledo, OH-MI	2	14	15	14
Tucson, AZ	24	29	43	41
Tulsa, OK	8	18	22	22
Small				
Anchorage, AK	10	9	10	10
Beaumont, TX	4	6	12	11
Boulder, CO	6	14	14	12
Brownsville, TX	2	4	7	8
Cape Coral, FL	9	26	28	29
Charleston-North Charleston, SC	15	27	35	38
Columbia, SC	4	12	19	22
Corpus Christi, TX	5	7	8	9
Eugene, OR	6	9	11	11
Knoxville, TN	10	39	25	26
Laredo, TX	2	9	12	15
Little Rock, AK	4	10	19	22
Pensacola, FL-AL	5	22	28	28

Continued on next page

TABLE 1-2-13 Average Hours of Annual Delay per Traveler: 1982 to 2007 *(continued)*

Hours

Urban areas	1982	1997	2006	2007
Salem, OR	3	12	17	16
Spokane, WA	3	10	8	9
Wichita, KS	2	5	5	6
90-Area average	16	36	42	41
Very large area average	21	43	52	51
Large area average	11	31	36	35
Medium area average	8	20	24	23
Small area average	6	15	18	19

NOTES: *Annual Delay per Traveler* is calculated as the extra travel time for peak-period travel during the year divided by the number of travelers who begin a trip during the peak period (6 to 9 a.m. and 4 to 7 p.m.). Free-flow speeds (60 mph on freeways and 35 mph on principal arterials) are used as the comparison threshold.

Very large urban areas have a population of over 3 million. *Large urban areas* have a population of over 1 million and less than 3 million. *Medium urban areas* have a population of over 500,000 and less than 1 million. *Small urban areas* have a population of less than 500,000.

SOURCE: Texas A&M University, Texas Transportation Institute, *2009 Urban Mobility Report* (College Station, TX: 2009), available at http://tti.tamu.edu/ as of September 2009 as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-63, available at http://www.bts.gov/publications/national_transportation_statistics/ as of April 2010.

TABLE 1-2-14 Average Daytime Wait Times for Private Passenger Vehicles at Selected U.S. Surface Border Gateways: 2003–2008

Minutes

	2003	2004	2005	2006	2007	2008
United States–Canada border						
Blaine-Pacific Highway, WA	3.3	5.4	6.6	9.6	15.1	14.5
Blaine-Peace Arch, WA	4.9	8.0	8.0	10.9	14.5	16.4
Sumas, WA	2.7	3.3	3.0	5.6	9.5	9.3
Port Huron-Bluewater Bridge, MI	3.1	5.0	3.5	5.8	10.3	8.6
Calais-Ferry Point, ME	2.7	2.1	2.4	5.0	7.5	3.7
Highgate Springs, VT	1.2	1.9	2.2	4.5	6.2	3.2
Champlain, NY	1.9	4.7	4.1	6.3	6.2	3.1
Sweetgrass, MT	2.6	2.9	3.7	3.7	5.3	5.7
Detroit-Ambassador Bridge, MI	2.1	2.2	2.0	5.8	8.1	7.9
Derby Line, VT	0.6	0.5	0.3	1.3	3.8	0.8
Buffalo/Niagara Falls-Lewiston Bridge, NY	7.0	4.2	1.7	3.6	4.2	3.9
Detroit-Windsor Tunnel, MI	3.6	4.1	3.1	4.1	7.4	8.0
Sault Ste. Marie, MI	1.0	3.8	3.5	5.7	4.2	3.8
Pembina, ND	0.8	2.2	1.4	2.0	3.1	2.6
Buffalo/Niagara Falls-Rainbow Bridge, NY	3.2	3.1	0.3	1.0	1.8	1.3
Jackman, ME	0.1	1.3	1.9	1.3	1.8	0.5
Buffalo/Niagara Falls-Peace Bridge, NY	5.3	2.8	0.3	0.8	1.4	1.5
Average	**2.4**	**2.9**	**2.4**	**4.0**	**5.8**	**4.9**
United States-Mexico border						
San Ysidro, CA	28.2	28.3	34.1	41.7	43.5	50.2
Calexico-West, CA	23.2	20.5	30.0	35.8	42.6	44.8
El Paso-Bridge of the Americas (BOTA), TX	19.6	17.6	11.8	23.2	36.3	27.4
Otay Mesa, CA	19.7	18.8	27.0	33.5	34.1	32.8
Nogales-Deconcini, AZ	23.4	22.1	20.0	25.0	27.9	24.7
El Paso-Paso Del Norte (PDN), TX	14.6	11.9	7.6	15.6	31.2	26.1
San Luis, AZ	19.4	14.7	16.8	34.1	36.5	39.9
Nogales-Mariposa, AZ	29.2	25.2	22.0	29.9	32.8	32.4
Laredo-Bridge II, TX	13.6	13.1	12.8	18.5	25.2	24.8
Calexico-East, CA	14.9	14.0	21.2	25.3	31.7	30.4
Laredo-Bridge I, TX	10.9	12.4	15.6	18.1	22.4	19.8
El Paso-Ysleta, TX	13.7	12.6	9.6	15.9	24.4	18.8
Hidalgo/Pharr-Hidalgo, TX	15.6	11.4	13.8	17.4	21.5	16.7
Brownsville-B&M, TX	8.2	7.0	8.1	10.9	19.7	20.0
Brownsville-Gateway, TX	8.6	7.0	7.9	10.4	17.7	16.9

Continued on next page

TABLE 1-2-14 Average Daytime Wait Times for Private Passenger Vehicles at Selected U.S. Surface Border Gateways: 2003–2008 *(continued)*

Minutes

	2003	2004	2005	2006	2007	2008
Andrade, CA	10.2	6.3	7.0	17.4	21.1	26.2
Douglas, AZ	9.7	7.3	5.5	8.2	14.4	13.3
Hidalgo/Pharr-Pharr, TX	12.7	9.4	10.0	14.2	18.8	12.6
Brownsville-Veterans International, TX	10.2	8.2	7.8	11.0	20.5	19.7
Tecate, CA	17.6	17.7	18.2	25.1	21.1	18.3
Progreso, TX	3.3	3.3	3.9	6.7	11.8	9.1
Eagle Pass-Bridge I, TX	7.1	6.2	8.2	12.6	14.8	11.1
Del Rio, TX	9.3	6.5	5.1	6.7	9.8	9.0
Eagle Pass-Bridge II, TX	5.2	3.9	4.6	8.8	10.0	6.6
Presidio, TX	0.5	0.2	0.2	2.6	8.3	7.8
Roma, TX	2.9	2.6	3.8	5.4	7.4	6.7
Brownsville-Los Indios, TX	4.4	3.7	3.7	5.2	9.6	8.4
Santa Teresa, NM	4.1	0.8	0.1	1.6	8.6	6.7
Rio Grande City, TX	4.1	3.1	5.9	7.7	7.6	7.7
Average	**11.0**	**9.6**	**10.4**	**15.0**	**19.5**	**18.1**

NOTES: 2003 data is for October through December 2003 only. Wait times for private vehicles are recorded hourly. Daytime hours (between 8:00 a.m. and 6:00 p.m.) are generally the busiest portion of the day and are representative of typical delays encountered by the majority of vehicles. Wait times can, however, vary considerably by crossing, time of day, and day of the week, and the actual delays that occur on occasion may be substantially longer than the averages represented above.The Department of Homeland Security has used a new methodology in estimating the average daytime wait times. The averages were calculated by taking the hourly recorded wait time (during hours of operation) and averaging these times for each port/crossing for the calendar year. The yearly average is calculated by taking the hourly recorded wait time (during hours of operation) and averaging these times for each calendar year. These data are not comparable with data from previous editions.

SOURCE: U.S. Department of Homeland Security, Customs and Border Protection, personal communication, December 2009.

TABLE 1-2-15 Average Daytime Wait Times for Commercial Vehicles at Selected U.S. Surface Border Gateways: 2003–2008

Minutes

	2003	2004	2005	2006	2007	2008
United States–Canada border						
Port Huron-Bluewater Bridge, MI	19.5	19.2	7.8	9.9	13.0	8.1
Blaine-Pacific Highway, WA	7.5	11.9	11.6	10.6	9.6	7.3
Calais-Ferry Point, ME	2.7	2.2	2.3	5.0	7.5	3.7
Sweetgrass, MT	6.3	3.8	6.1	6.5	8.4	8.0
Detroit-Windsor Tunnel, MI	2.3	3.4	2.8	3.7	7.3	7.4
Detroit-Ambassador Bridge, MI	16.5	10.8	2.0	3.6	6.2	6.0
Sault Ste. Marie, MI	0.4	2.6	2.6	5.4	4.2	3.6
Pembina, ND	2.4	3.6	4.1	7.0	4.7	4.1
Sumas, WA	3.4	3.8	4.2	3.8	3.7	3.0
Houlton, ME	3.7	3.1	1.4	2.0	4.7	2.5
Highgate Springs, VT	1.7	3.9	3.0	5.5	3.4	1.3
Derby Line, VT	3.2	5.6	3.2	2.2	3.1	0.8
Buffalo/Niagara Falls-Peace Bridge, NY	13.3	8.5	2.9	1.3	1.5	0.9
Champlain, NY	4.5	8.3	3.9	8.7	0.8	0.3
Jackman, ME	0.1	0.9	1.0	0.7	0.7	0.3
Buffalo/Niagara Falls-Lewiston Bridge, NY	11.0	3.0	0.7	1.9	0.5	1.2
Average	**5.5**	**5.3**	**3.4**	**4.6**	**4.6**	**3.2**
United States–Mexico border						
Otay Mesa, CA	16.5	18.0	26.9	48.0	41.4	20.2
Laredo-World Trade Bridge, TX	14.3	24.9	25.6	34.5	38.7	27.2
Nogales-Mariposa, AZ	16.6	24.1	23.5	29.4	21.2	22.2
Calexico-East, CA	10.7	7.1	9.1	27.9	22.1	16.4
Hidalgo/Pharr, Pharr, TX	7.9	7.5	11.7	18.3	15.5	13.9
El Paso-Ysleta, TX	13.5	17.0	16.5	11.8	20.4	11.4
Laredo-Colombia Solidarity, TX	3.5	4.7	7.0	12.5	13.4	6.5
Progreso, TX	2.0	1.3	3.1	10.1	18.0	21.6
Brownsville-Veterans International, TX	11.1	10.2	7.8	10.3	11.2	10.9
El Paso-Bridge of the Americas (BOTA), TX	8.6	8.7	13.5	15.4	9.3	9.1
Del Rio, TX	5.4	2.8	2.3	4.2	6.5	4.7
Tecate, CA	8.9	14.2	10.7	24.3	8.2	5.9
Brownsville-Los Indios, TX	1.2	1.4	1.2	2.0	2.5	2.1
Santa Teresa, NM	0.1	0.1	0.1	0.7	2.1	0.6
Rio Grande City, TX	3.1	2.5	2.6	2.5	1.5	1.0
Presidio, TX	0.0	0.0	0.0	0.2	0.7	0.2
Eagle Pass–Bridge I, TX	2.0	1.1	5.0	U	U	U
Average	**6.2**	**7.1**	**8.3**	**13.3**	**13.4**	**10.0**

KEY: U = Data are unavailable.

NOTES: 2003 data are for October through December 2003 only. Wait times for commercial vehicles are recorded hourly. Daytime hours (between 8:00 a.m. and 6:00 p.m.) are generally the busiest portion of the day and are representative of typical delays encountered by the majority of vehicles. Wait times can, however, vary considerably by crossing, time of day, and day of the week, and the actual delays that occur on occasion may be substantially longer than the averages represented above. The Department of Homeland Security has used a new methodology in estimating the average daytime wait times. The averages were calculated by taking the hourly recorded wait time (during hours of operation) and averaging these times for each port/crossing for the calendar year. The yearly average is calculated by taking the hourly recorded wait time (during hours of operation) and averaging these times for each calendar year. These data are not comparable with data from previous editions.

SOURCE: U.S. Department of Homeland Security, Customs and Border Protection, personal communication, December 2009.

TABLE 1-2-16 St. Lawrence Seaway (U.S. Portion) Downtime by Cause: 1998–2008

Hours of downtime, unless otherwise noted

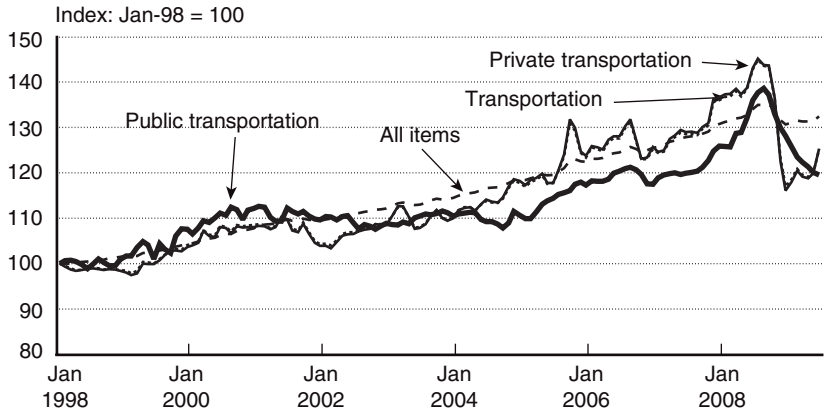
	Weather related	Vessel incident	All other causes	Total downtime hours	Weather (percentage of total)	System availability (percentage)
1998	43.2	43.3	12.1	98.6	43.8	98.5
1999	2.0	46.3	1.3	49.6	4.0	99.2
2000	53.7	27.8	2.6	84.1	63.9	98.7
2001	56.8	45.1	8.9	110.8	51.3	98.3
2002	41.1	16.9	5.1	63.1	65.1	99.1
2003	57.6	15.9	0.0	73.5	78.4	98.9
2004	43.8	15.0	7.2	66.0	66.4	99.0
2005	16.9	12.1	6.0	35.0	48.3	99.5
2006	19.1	34.5	8.8	62.4	30.6	99.1
2007	39.7	23.6	10.4	73.7	53.9	98.9
2008	39.4	7.1	13.5	60.0	65.7	99.1

NOTES: *Weather-related causes* include poor visibility, high wind, and ice. *All other causes* includes lock equipment malfunction, civil interference, pilotage, and water level/flow. These data pertain only to the two U.S. locks (Snell and Eisenhower) on the St. Lawrence Seaway between the Port of Montreal and Lake Ontario. Canada operates another five locks along this portion of the Seaway. In addition, Canada operates locks at the Welland Canal along the Seaway. *System availability* does not include the time when the locks are closed for the winter, typically from late December to late March.

SOURCES: **1998–2001**: U.S. Department of Transportation, Saint Lawrence Seaway Development Corporation (SLSDC), *Annual Reports* (Washington, DC: Annual Issues), available at http://www.greatlakes-seaway.com. **2002–2008**: SLSDC, personal communication, December 2009.

FIGURE 1-2-17 Prices Paid by U.S. Households for Transportation Services: January 1998 – June 2009

Monthly data, seasonally adjusted



SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Price Index*, available at http://www.bls.gov/cpi/ as of January 2010.

TABLE 1-2-17 Prices Paid by U.S. Households for Transportation Services: January 2008–June 2009

Index: January 1998 = 100

	All items	Transportation	Private transportation	Public transportation
January 2008	131.2	136.7	137.3	125.8
February 2008	131.4	136.8	137.4	125.7
March 2008	131.9	138.0	138.5	128.7
April 2008	132.1	136.8	137.3	128.9
May 2008	132.7	138.4	138.7	132.0
June 2008	134.0	142.8	143.1	136.0
July 2008	134.9	144.8	145.1	137.6
August 2008	134.9	143.5	143.7	138.6
September 2008	135.0	143.3	143.6	137.2
October 2008	133.9	136.4	136.5	133.0
November 2008	131.6	123.2	122.5	129.9
December 2008	130.6	117.0	116.1	128.1
January 2009	131.0	118.5	117.9	125.8
February 2009	131.5	120.8	120.5	123.5
March 2009	131.3	119.5	119.2	122.3
April 2009	131.3	119.1	118.8	121.3
May 2009	131.4	120.0	119.9	120.1
June 2009	132.4	125.1	125.3	119.5

NOTES: The Consumer Price Index (CPI) for a specific item is a weighted average of the prices for the individual components. The weights are determined by the expenditure shares of the individual components based on a survey of consumer expenditure during the base year(s). The CPI base year price is then normalized to 100. For some items, BLS establishes weights using several years of consumer expenditure surveys in order to smooth the effects of short-term price shocks and of the business cycle. Weights formed using several years will give a more accurate measure of typical consumer expenditure patterns.

Private transportation is a weighted average of the prices for new and used motor vehicles, motor fuels, motor vehicle parts and equipments, motor vehicle maintenance and repair, motor vehicle insurance, and motor vehicle fees (state and local registration and license fees, parking, and other fees).

Public transportation is a weighted average of the prices for airline fares, intercity bus fares, intercity train fares, ship fares, intracity transportation (intracity mass transit, taxi fares, and car and van pools), and other public transportation.

The base period of the original index is 1982–84. The new reference point, January 1998 = 100, has been set by dividing the values of the original index by the value of January 1998 in the original index. This process changes the reference point, and not the base period of the index because the weight structure of the index did not change.

The Consumer Price Index (CPI) tracks the price of a market basket of goods and services purchased by U.S. households over time.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Price Index*, available at http://www.bls.gov/cpi/ as of January 2010.

TABLE 1-2-18 Average Household Transportation Expenditures: 1998–2008

Current dollars

	Vehicle purchases	Gasoline and motor oil	Other vehicle expenses	Public transportation	Total
1998	2,964	1,017	2,206	429	6,616
1999	3,305	1,055	2,254	397	7,011
2000	3,418	1,291	2,281	427	7,417
2001	3,579	1,279	2,375	400	7,633
2002	3,665	1,235	2,471	389	7,759
2003	3,732	1,333	2,331	385	7,781
2004	3,397	1,598	2,365	441	7,801
2005	3,544	2,013	2,339	448	8,344
2006	3,421	2,227	2,355	505	8,508
2007	3,244	2,384	2,592	538	8,758
2008	2,755	2,715	2,621	513	8,604

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

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Expenditure Survey*, available at http://www.bls.gov/cex/ as of October 2009.

TABLE 1-2-19 Average Passenger Fares: 1998–2007

Current dollars

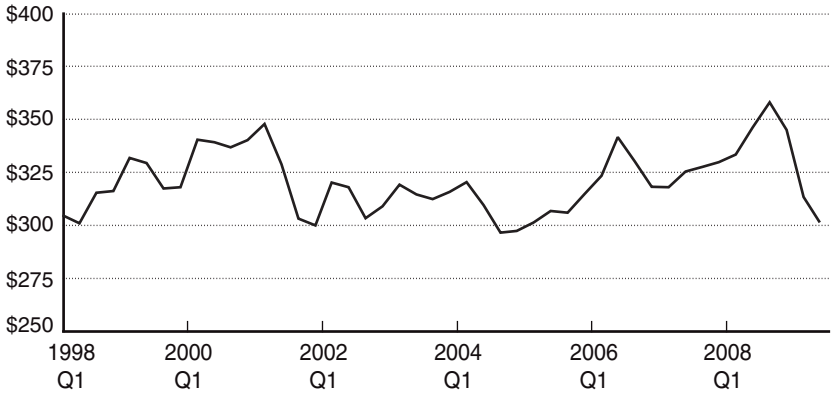
	Air carrier, domestic, scheduled service	Class I, intercity bus	Transit, all modes (unlinked)	Commuter rail	Amtrak, intercity rail
1998	309.20	23.14	0.90	3.29	44.75
1999	323.87	26.16	0.87	3.30	46.85
2000	339.04	29.46	0.89	3.32	49.61
2001	320.64	30.27	0.90	3.44	51.58
2002	312.34	30.11	0.90	3.50	55.15
2003	315.36	U	0.96	3.79	50.68
2004	305.41	U	1.01	3.90	50.04
2005	307.31	U	1.03	4.09	51.47
2006	328.55	U	1.26	4.22	56.45
2007	325.26	U	1.07	4.33	58.94

KEY: U = Data are unavailable.

NOTES: *Class I* bus includes regular route intercity service. *Air carrier* average passenger fare (round trip) is from *O and D Traffic Survey* data, *DB1B-Ticket* data.

SOURCES: **Air carrier** and **Bus**: Research and Innovative Technology Administration, Bureau of Transportation Statistics; **Transit**: Federal Transit Administration; **Commuter rail**: Federal Transit Administration and American Public Transportation Association; **Intercity rail**: National Railroad Passenger Corporation (Amtrak) and Association of American Railroads as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, National Transportation Statistics, table 3-15a, available at http://www.bts.gov/publications/national_transportation_statistics as of January 2010.

FIGURE 1-2-20 U.S. Domestic Airline Industry Historical Average Itinerary Fares: 1st quarter 1998–2nd quarter 2009



SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, available at http://www.bts.gov/xml/atpi/src/avgfareseries.xml as of December 2009.

TABLE 1-2-20 U.S. Domestic Airline Industry Historical Average Itinerary Fares: 1998–2009

Average fares in dollars for complete roundtrip itinerary

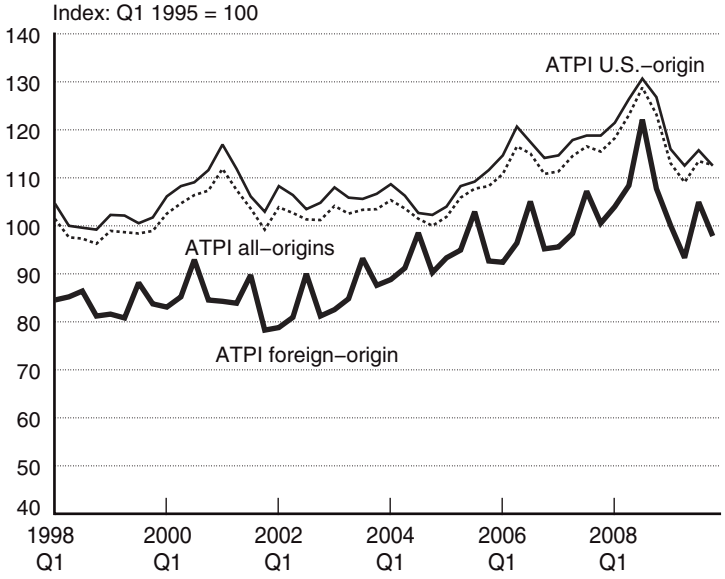
	Annual average itinerary fare
1998	309.20
1999	323.87
2000	339.04
2001	320.64
2002	312.34
2003	315.36
2004	305.41
2005	307.31
2006	328.55
2007	325.26
2008	345.73
2009	306.81

NOTE: 2009 data is an average for the first and second quarters of the year only.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, available at http://www.bts.gov/xml/atpi/src/avgfareseries.xml, data as of December 2009.

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

FIGURE 1-2-21 Comparison of Air Travel Price Indexes (ATPI): 1st quarter 1998–4th quarter 2009



SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Air Travel Price Index*, available at http://www.bts.gov/ as of July 2010.

TABLE 1-2-21 Comparison of Air Travel Price Indexes (ATPI): 1st quarter 2008–4th quarter 2009

Not seasonally adjusted, domestic carriers only
Index: 1995 Q1 = 100

Quarter	ATPI all-origins	ATPI U.S.-origin	ATPI foreign-origin
2008 Q1	118.20	121.40	103.98
2008 Q2	123.02	126.33	108.30
2008 Q3	128.76	130.56	122.13
2008 Q4	123.20	126.76	107.64
2009 Q1	112.98	116.00	100.05
2009 Q2	108.97	112.50	93.25
2009 Q3	113.38	115.70	104.91
2009 Q4	112.58	112.50	97.76

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

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Air Travel Price Index*, available at http://www.bts.gov/ as of July 2010.

TABLE 1-2-22 Average Itinerary Fares and Consumer Price Index (CPI) Changes: 2000–2009

	Average CPI	Change in CPI vs. 2000	Average fare	Change in fares vs. 2000
2000	172.2		$339.04	
2001	177.1	2.8%	$320.64	-5.4%
2002	179.9	4.5%	$312.34	-7.9%
2003	184.0	6.9%	$315.36	-7.0%
2004	188.9	9.7%	$305.41	-9.9%
2005	195.3	13.4%	$307.31	-9.4%
2006	201.6	17.1%	$328.55	-3.1%
2007	207.3	20.4%	$325.26	-4.1%
2008	215.3	25.0%	$345.73	2.0%
2009	214.5	24.6%		

SOURCES: **Average Fares**: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *TranStats Database, Air Fares*, special tabulation, January 2010. **Consumer Price Index**: U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Price Index*,available at ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt as of June 2010.

TABLE 1-2-23 Highest and Lowest Average Domestic Fares by Origin Airport: 2000 and 2009

Highest average fares 2000	Average fare	Highest average fares 2009	Average fare
White Plains, NY	568.63	Huntsville, AL	489.41
Charlotte, NC	495.69	Grand Rapids, MI	409.85
Greenville/Spartanburg, SC	490.74	Savannah, GA	406.21
Richmond, VA	472.42	Greenville/Spartanburg, SC	402.68
Huntsville, AL	463.56	Washington, DC (Dulles)	394.90
Cincinnati, OH	457.69	Knoxville, TN	389.04
New York, NY (J.F. Kennedy)	455.23	Houston, TX (Bush)	386.71
Harrisburg, PA	453.51	Cincinnati, OH	386.16
Charleston, SC	451.90	Memphis, TN	384.45
San Francisco, CA	451.70	Newark, NJ	383.39
Lowest average fares 2000	**Average fare**	**Lowest average fares 2009**	**Average fare**
Dallas, TX (Love)	182.79	Long Beach, CA	221.16
Burbank, CA	185.65	Dallas, TX (Love)	229.43
Atlantic City, NJ	214.13	Orlando, FL	232.82
Chicago, IL (Midway)	217.52	Las Vegas, NV	235.07
Houston, TX (Hobby)	217.61	Ft. Lauderdale, FL	235.19
Islip Long Island, NY	221.42	Burbank, CA	239.68
Reno, NV	221.83	Oakland, CA	242.26
Las Vegas, NV	222.77	Chicago, IL (Midway)	244.36
Lubbock, TX	227.32	Ft. Myers, FL	245.71
Oakland, CA	236.98	Buffalo/Niagara, NY	247.12

NOTE: *Average fare* is for a complete itinerary beginning at the origin airport. Variations in *Average fares* include the effects of price as well as average distance traveled by all flights from the origin airport.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, special tabulation, *TranStats Database, Domestic Air Fares Database*, as of July 2010.

State of Good Repair

TABLE 1-3-1 Rural and Urban Roads in Poor or Mediocre Condition by Functional Class: 1998–2007

Percentage of mileage in roadway class

	Rural				Urban				
	Interstates	Other principal arterials	Minor arterials	Collectors	Interstates	Other freeways and expressways	Other principal arterials	Minor arterials	Collectors
1998	20.6	6.1	7.9	19.3	34.9	12.0	31.3	19.5	25.4
1999	16.3	4.5	6.8	21.1	30.4	10.7	30.6	22.3	28.4
2000	14.4	4.0	7.0	21.2	28.2	10.9	30.0	26.0	32.1
2001	13.6	3.7	6.9	20.4	28.2	10.2	29.3	26.4	31.9
2002	12.3	3.4	5.8	19.5	28.2	10.3	29.7	26.6	32.8
2003	11.4	3.5	6.1	19.2	26.8	10.7	29.0	27.9	34.0
2004	12.4	4.2	6.5	18.8	24.9	9.7	27.8	28.8	34.8
2005	11.2	3.6	5.4	18.5	22.8	7.8	27.4	27.5	33.5
2006	10.0	3.3	5.9	17.9	21.5	6.5	25.6	26.9	34.9
2007	9.8	3.2	5.7	17.8	21.9	7.2	26.9	27.9	36.4

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

SOURCE: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics* (Washington, DC: Annual Issues), tables HM-63 and HM-64 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*,table 1-26, available at http://www.bts.gov/publications/national_transportation_statistics/ as of April 2010.

TABLE 1-3-2 Condition of U.S. Highway Bridges: 1998–2008

Number of bridges

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total all bridges	582,976	585,542	589,674	589,685	590,887	591,940	593,813	595,363	597,340	599,766	601,396
Urban	128,312	130,339	133,384	133,401	135,339	135,415	137,598	142,408	146,041	151,171	153,407
Rural	454,664	455,203	456,290	456,284	455,548	456,525	456,215	452,955	451,299	448,595	447,989
Structurally deficient bridges, total	93,072	88,150	86,678	83,595	81,261	79,775	77,752	75,923	73,784	72,520	71,461
Urban	14,073	12,967	13,079	12,705	12,503	12,316	12,175	12,600	12,585	12,951	12,896
Rural	78,999	75,183	73,599	70,890	68,758	67,459	65,577	63,323	61,199	59,569	58,565
Functionally obsolete bridges, total	79,500	81,900	81,510	81,439	81,537	80,990	80,567	80,412	80,317	79,804	79,933
Urban	27,588	29,065	29,398	29,383	29,675	29,886	30,298	31,391	32,292	33,139	33,691
Rural	51,912	52,835	52,112	52,056	51,862	51,104	50,269	49,021	48,025	46,665	46,242

NOTES: Data for 2000 are as of August of that year; data for 2001 are as of December of that year; data for 2002–06 are as of July of those years; data for 2007–08 are as of December of those years. Definitions for the terms *Structurally deficient* and *Functionally obsolete* can be found on pages 14 and 15 in Chapter 3 of the Federal Highway Administration, *2006 Conditions and Performance Report* available at http://www.fhwa.dot.gov/policy/2006cpr/pdfs/chap3.pdf. U.S. totals include the 50 states, the District of Columbia, and Puerto Rico.

Table includes: rural-interstate, principal arterial, minor arterial, major collector, and local roads; urban-interstate, other freeways or expressways, other principal arterial, minor arterial, collector, and local roads.

SOURCES: **1998–2000**: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics; based on data from Federal Highway Administration, Office of Bridge Technology, *National Bridge Inventory Database*, personal communication, Aug. 14, 2001. **2001–2008**: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics; based on data from Federal Highway Administration, Office of Bridge Technology, National Bridge Inventory Database, *Count of Bridges by Highway System*, available at http://www.fhwa.dot.gov/bridge/britab.htm as of Sept. 24 2009 as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, National Transportation Statistics, table 1-27, available at http://www.bts.gov/publications/national_transportation_statistics/ as of October 2009.

TABLE 1-3-3 U.S. Airport Runway Pavement Conditions: 1999–2009

	NPIAS airports (number)	Condition (percent)			Commercial service airports (number)	Condition (percent)		
		Good	Fair	Poor		Good	Fair	Poor
1999	3,344	72.0	23.0	5.0	547	78.0	20.0	2.0
2000	3,361	73.0	22.0	5.0	546	79.0	19.0	2.0
2001	3,364	73.0	22.0	5.0	546	79.0	19.0	2.0
2002	3,358	71.0	24.0	5.0	536	79.0	19.0	2.0
2003	3,346	75.0	21.0	4.0	510	80.0	18.0	2.0
2004	3,356	75.0	21.0	4.0	513	82.0	16.0	2.0
2005	3,357	75.0	21.0	4.0	517	79.0	19.0	2.0
2006	3,365	77.0	19.0	4.0	517	79.0	18.0	3.0
2007	3,372	78.0	19.0	3.0	514	80.0	18.0	2.0
2008	3,356	79.0	18.0	3.0	522	81.0	17.0	2.0
2009	3,345	78.0	19.0	3.0	528	82.0	16.0	2.0

KEY: NPIAS = National Plan of Integrated Airport Systems.

NOTES: The U.S. Department of Transportation, Federal Aviation Administration's (FAA's) *National Plan of Integrated Airport Systems* is composed of all *commercial service airports*, all reliever airports, and selected general aviation airports. It does not include over 1,000 publicly owned public-use landing areas, privately owned public-use airports, and other civil landing areas not open to the general public. NPIAS airports account for almost all enplanements. In 2007, there were about 16,400 non-NPIAS airports. *Commercial service airports* are defined as public airports receiving scheduled passenger service, and having at least 2,500 enplaned passengers per year.

Data are as of January 1 of each year. Runway pavement condition is classified by the FAA as follows:

Good: All cracks and joints are sealed.

Fair: Mild surface cracking, unsealed joints, and slab edge spalling.

Poor: Large open cracks, surface and edge spalling, vegetation growing through cracks and joints.

SOURCE: U.S. Department of Transportation, Federal Aviation Administration, personal communication as of December 2009 as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-24, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-3-4 Rail Replaced or Added by U.S. Class I Railroads: 1998–2007

Thousands of tons

	Rail replaced	Rail added
1998	679.0	204.8
1999	769.3	213.4
2000	726.1	196.3
2001	660.1	197.0
2002	635.5	125.2
2003	632.6	139.4
2004	591.4	45.1
2005	424.0	48.4
2006	462.3	38.8
2007	530.3	61.4

SOURCES: **1998–1999**: Association of American Railroads, *Railroad Ten-Year Trends, 1990–2000* (Washington, DC: 2000). **2000–2007**: Association of American Railroads, *Analysis of Class I Railroads* (Washington, DC: Annual Issues).

TABLE 1-3-5 Crossties Replaced or Added by U.S. Class I Railroads: 1998–2007

Millions of crossties

	Crossties replaced	Crossties added
1998	10.4	1.8
1999	10.8	1.3
2000	10.8	0.7
2001	11.4	0.5
2002	13.1	0.3
2003	13.2	0.5
2004	13.3	0.5
2005	13.4	0.9
2006	14.7	0.8
2007	14.3	0.7

SOURCES: **1998–1999**: Association of American Railroads, *Railroad Ten-Year Trends, 1990–2000* (Washington, DC: 2000). **2000–2007**: Association of American Railroads, *Analysis of Class I Railroads*, (Washington, DC: Annual Issues).

TABLE 1-3-6 New and Rebuilt Locomotives and Freight Cars: 1998–2007

	Locomotives	Percent of fleet	Freight cars	Percent of fleet
1998	1,061	5.2	83,076	6.3
1999	865	4.3	77,901	5.7
2000	721	3.6	58,245	4.2
2001	755	3.8	35,475	2.7
2002	778	3.8	18,832	1.4
2003	621	3.0	33,155	2.6
2004	1,126	5.1	47,843	3.7
2005	911	4.0	70,154	5.3
2006	1,080	4.6	76,528	5.6
2007	1,069	4.4	65,196	4.7

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

SOURCE: Association of American Railroads, *Railroad Facts 2008* (Washington, DC: 2008), pp. 49, 51, and 55.

TABLE 1-3-7 Average Age of Urban Transit Vehicles: 1998–2008

	Heavy-rail passenger cars	Commuter-rail passenger coaches	Light-rail vehicles	Full-size transit buses	Vans	Ferryboats
1998	22.0	19.4	15.7	8.5	2.9	25.8
1999	22.5	17.5	15.7	8.4	3.1	25.1
2000	22.9	16.9	16.1	8.1	3.1	25.6
2001	21.7	18.1	16.4	7.8	3.3	24.7
2002	20.0	20.1	16.3	7.5	4.9	26.8
2003	19.0	20.5	15.6	7.3	3.4	27.1
2004	19.8	17.9	15.5	7.2	3.4	25.6
2005	20.8	18.6	14.5	7.6	3.4	25.6
2006	21.6	18.6	15.3	7.4	3.1	21.7
2007	21.6	18.9	16.1	6.2	3.1	20.3
2008	20.7	18.7	16.4	7.7	3.3	20.1

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

SOURCE: U.S. Department of Transportation, Federal Transit Administration, *National Transit Database, Data Tables*, as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-28a, available at http://www.bts.gov/publications/national_transportation_statistics as of April 2010.

TABLE 1-3-8 U.S. Flag Vessels by Type and Age: 2008

Number

	Age group (years)					
Vessel types	**< = 5**	**6–10**	**11–15**	**16–20**	**21–25**	**> 25**
Dry cargo	90	102	96	94	87	425
Tanker	10	8	6	3	12	37
Towboat	475	360	214	155	205	4,003
Passenger	45	72	95	129	138	341
Offshore support	295	292	123	93	88	936
Dry barge	4,494	4,435	4,543	2,524	935	9,395
Tank/liquid Barge	1,127	494	390	259	63	2,225
Total	**6,536**	**5,766**	**5,469**	**3,257**	**1,528**	**17,375**

NOTES: *Total* includes a small number of boats whose ages are unknown. Data includes vessels available for operation. Age is based on the year the vessel was built or rebuilt, using calendar year 2008 as the base year. *Dry cargo* includes dry bulk, containership, general cargo, and specialized cargo. *Dry barges* includes dry cargo barges that may be open or covered, lash/seabee, or deck. *Tank barges* include single and double hull barges.

SOURCE: U.S. Army Corps of Engineers, *Waterborne Transportation Lines of the United States, Volume 1, National Summaries* (New Orleans, LA: Annual Issues),table 4, available at http://www.ndc.iwr.usace.army.mil/publications.htm as of July 2010.

TABLE 1-3-9 Average Age of Amtrak Locomotive and Train Car Fleets: Fiscal Years: 1998–2008
Years

	Locomotives	Passenger cars and other rolling stock
1998	12.6	21.1
1999	12.8	22.2
2000	11.2	19.4
2001	13.9	18.5
2002	13.7	20.4
2003	14.8	21.4
2004	15.7	22.4
2005	16.4	23.3
2006	17.5	22.5
2007	19.0	24.0
2008	20.0	25.0

NOTE: Roadrailers are not considered rolling stock for the purpose of these calculations.

SOURCE: National Railroad Passenger Corporation (Amtrak), personal communication, August 2009 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-30, available at http://www.bts.gov/publications/national_transportation_statistics/ as of October 2009.

TABLE 1-3-10 Median Age of Automobiles and Trucks in Operation in the United States: 1998–2008

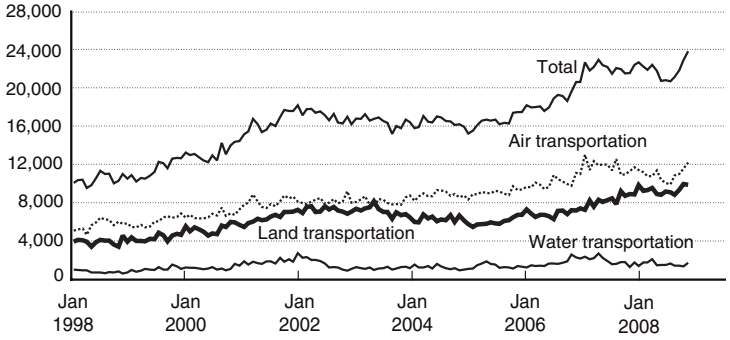
	Cars	Light trucks	All trucks
1998	8.3	7.1	7.6
1999	8.3	6.9	7.2
2000	8.3	6.7	6.9
2001	8.3	6.1	6.8
2002	8.4	6.6	6.8
2003	8.6	6.5	6.7
2004	8.9	6.4	6.6
2005	9.0	6.6	6.8
2006	9.2	6.8	6.9
2007	9.2	7.1	7.3
2008	9.4	7.5	7.6

NOTES: *Light trucks* are 14,000 lbs and under (gross vehicle weight classes 1-3). Median age is as of July 1st of each year.

SOURCE: The R.L. Polk Co., *News, Latest News, U.S. Vehicle Median Age Increased in 2008*, According To Polk, available at http://usa.polk.com/News/LatestNews/ as of August 2008 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-25, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

FIGURE 1-3-11 State and Local Expenditures on Nonroadway Transportation Construction: January 1998–June 2009

Monthly data, seasonally adjusted annual rate (millions of dollars)



[a] Land transportation construction is primarily related to mass transit systems.

SOURCE: U.S. Department of Commerce, U.S. Census Bureau, *Construction Spending*, available at http://www.census.gov/const/www/c30index.html as of October 2009.

TABLE 1-3-11 State and Local Expenditures on Nonroadway Transportation Construction: January 2008–March 2010

Monthly data, seasonally adjusted annual rate (millions of dollars)

	Total	Air transportation	Land transportation[a]	Water transportation
January 2008	22,350	11,648	9,083	1,619
February 2008	23,637	12,979	9,031	1,627
March 2008	23,019	11,014	10,200	1,806
April 2008	22,426	11,144	9,453	1,830
May 2008	22,663	11,380	9,973	1,310
June 2008	23,620	11,900	9,920	1,800
July 2008	23,467	11,563	10,484	1,420
August 2008	23,648	11,769	10,090	1,789
September 2008	23,437	11,414	10,212	1,811
October 2008	24,083	11,362	10,601	2,119
November 2008	23,505	12,261	9,745	1,499
December 2008	23,124	11,254	10,316	1,554
January 2009	22,927	10,923	10,455	1,549
February 2009	25,315	10,572	13,077	1,667
March 2009	23,281	11,584	10,331	1,366
April 2009	24,361	11,824	11,022	1,514
May 2009	25,995	13,134	11,362	1,499
June 2009	26,639	13,453	11,336	1,850
July 2009	29,277	14,291	13,180	1,806
August 2009	30,246	15,940	12,449	1,858
September 2009	30,066	15,554	12,900	1,612
October 2009	28,500	13,420	13,186	1,894
November 2009	27,938	12,241	13,828	1,870
December 2009	28,157	12,904	13,508	1,745
January 2010	26,778	13,482	12,023	1,272
February 2010	28,905	14,174	13,207	1,524
March 2010	32,205	15,776	14,478	1,951

[a] Land transportation construction is primarily related to mass transit systems.

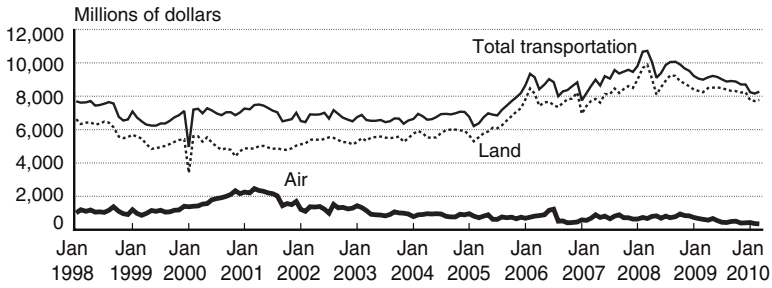
NOTES: Expenditure refers to the value of work done on construction projects underway during a given period of time, regardless of when work on each individual project was started or when payment was made to the contractors. Public expenditures on transportation construction are a measure of growth in system capacity. Construction includes new buildings, infrastructure, renovations, site preparation, and other materials and structures involved in construction. Maintenance of existing facilities and structures is not included. Construction expenditures on completely new routes and terminals are direct additions to system capacity. Construction expenditures (including renovations, expansions, conversions, etc.) on existing transportation infrastructure may improve maintenance and system management, safety, and other attributes that increase capacity.

Details may not add to totals due to rounding.

SOURCE: U.S. Department of Commerce, U.S. Census Bureau, *Construction Spending*, available at http://www.census.gov/const/www/c30index.html as of July 2010.

FIGURE 1-3-12A Private Expenditures on Transportation Infrastructure Construction: January 1998–March 2010

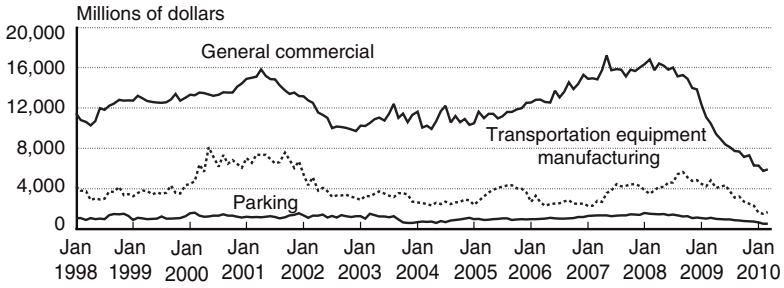
Monthly data, seasonally adjusted annual rate



SOURCE: U.S. Department of Commerce, U.S. Census Bureau, *Construction Spending*, available at http://www.census.gov/const/www/c30index.html as of December 2009.

FIGURE 1-3-12B Private Expenditures on Transportation-Related Construction: January 1998–March 2010

Monthly data, seasonally adjusted annual rate



SOURCE: U.S. Department of Commerce, U.S. Census Bureau, *Construction Spending*, available at http://www.census.gov/const/www/c30index.html as of December 2009.

TABLE 1-3-12 Private Expenditures on Transportation-Related Construction: January 2008–March 2010

Monthly data, seasonally adjusted annual rate (millions of dollars)

	Private expenditures on transportation infrastructure construction			Private expenditures on transportation-related construction		
	Total transportation	Air	Land	Transportation equipment manufacturing	Parking	General commercial
January 2008	9,794	641	8,979	3,868	1,597	16,317
February 2008	10,673	734	9,690	3,475	1,504	16,794
March 2008	10,718	663	9,889	3,823	1,485	15,718
April 2008	10,059	801	9,050	4,169	1,459	16,390
May 2008	9,097	829	8,087	4,150	1,480	16,172
June 2008	9,384	689	8,545	4,609	1,367	15,765
July 2008	9,864	813	8,929	4,607	1,439	15,986
August 2008	10,045	714	9,237	5,441	1,361	15,119
September 2008	10,064	771	9,204	5,629	1,241	15,249
October 2008	9,891	942	8,886	5,098	1,281	14,873
November 2008	9,665	846	8,760	4,750	1,090	13,953
December 2008	9,517	827	8,583	4,831	1,130	13,830
January 2009	9,206	730	8,391	4,471	1,094	12,321
February 2009	9,052	673	8,312	4,231	1,039	11,084
March 2009	8,985	621	8,231	4,825	1,108	10,434
April 2009	9,129	574	8,492	4,066	993	9,414
May 2009	9,202	660	8,499	4,181	970	8,889
June 2009	9,146	531	8,528	4,343	954	8,351
July 2009	8,999	440	8,475	3,716	958	8,086
August 2009	8,873	426	8,393	3,116	875	7,730
September 2009	8,899	489	8,316	3,212	833	7,677
October 2009	8,872	500	8,299	2,719	790	7,144
November 2009	8,700	398	8,221	2,506	770	7,284
December 2009	8,702	415	8,233	2,316	724	6,288
January 2010	8,230	424	7,751	1,604	656	6,280
February 2010	8,149	361	7,703	1,502	525	5,755
March 2010	8,258	347	7,768	1,668	521	5,914

NOTES: Expenditure refers to the value of work done on construction projects underway during a given period of time, regardless of when work on each individual project was started or when payment was made to the contractors. *Total transportation* is the sum of *air*, *land*, and *water* transportation expenditure. Expenditure on water is not separately presented because of lack of monthly estimates. *Air* and *land* transportation are defined the same as for state and local public expenditures. *General commercial warehousing* includes commercial warehouses, storage warehouses, and distribution buildings. *Transportation equipment manufacturing* includes construction related to transportation equipment-producing industries. *Parking* includes commercial parking lots and garages.

SOURCE: U.S. Department of Commerce, U.S. Census Bureau, *Construction Spending*, available at http://www.census.gov/const/www/c30index.html as of July 2010.

TABLE 1-3-13 Passenger and Freight Expenditures: 1995–2004
Millions (in current dollars)

	Passenger and freight transportation expenditures, total	Passenger transportation expenditures, total	Highway	Intercity bus	Air	Rail	Water
1995	945,316	693,889	600,289	1,800	83,681	4,132	3,988
1996	1,010,079	747,346	648,709	1,900	87,929	4,576	4,231
1997	1,071,632	798,216	691,562	2,200	95,312	4,701	4,440
1998	1,098,126	837,566	722,525	2,200	102,819	4,786	5,237
1999	1,188,252	914,032	790,538	2,200	110,110	4,954	6,230
2000	1,287,038	995,747	859,347	2,400	120,987	5,316	7,697
2001	1,296,037	1,010,043	885,022	2,400	108,791	5,560	8,270
2002	1,300,203	1,013,152	895,894	2,400	100,573	5,634	8,652
2003	1,362,963	1,064,204	942,594	2,300	104,422	5,833	9,055
2004	1,448,699	1,117,709	995,617	2,100	104,354	6,199	9,438

	Freight transportation expenditures, total	Highway	Air	Rail	Water	Oil pipeline	Other
1995	251,427	140,774	10,901	34,342	25,162	27,346	12,902
1996	262,733	149,784	11,843	34,903	23,980	28,774	13,449
1997	273,416	159,798	12,984	35,349	23,761	27,093	14,431
1998	260,560	148,222	13,259	35,295	24,767	23,750	15,267
1999	274,220	155,982	14,374	35,893	26,667	25,329	15,975
2000	291,291	165,539	15,838	36,282	30,925	26,057	16,651
2001	285,994	162,985	15,107	36,579	29,574	25,678	16,072
2002	287,051	164,332	15,749	36,921	28,643	25,318	16,088
2003	298,759	168,596	16,325	38,268	34,191	25,194	16,184
2004	330,990	186,045	17,707	42,160	40,612	27,622	16,844

NOTES: *Air passenger* includes aircraft and operating costs, plus domestic and international air passenger federal excise taxes. *Rail passenger* includes federal operating subsidies and capital grants for Amtrak and the Northeast Corridor. *Water passenger* includes international. *Air freight* includes domestic and international. *Other* includes shipping, receiving, and traffic clerks. Components may not add to total due to rounding. This edition of this table is not comparable to previous editions because of a change by Bureau of Transportation Statistics to the methodology of calculating *Passenger highway* transportation expenditures. *Intercity bus* data are no longer also counted under *highway*.

SOURCE: Eno Transportation Foundation Inc., *Transportation in America, Twentieth Edition* (Washington, DC: 2007), pp. 32-34.

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

TABLE 1-3-14 Federal, State, and Local Government Transportation Revenues: FY 1998–2007

	Chained 2005 dollars (billions)		
	Federal	State and local	Total
1998	51.3	95.3	146.6
1999	66.3	97.3	163.5
2000	57.1	98.1	155.2
2001	51.0	97.1	148.0
2002	52.8	98.3	151.0
2003	51.2	95.2	146.5
2004	49.0	95.3	144.2
2005	51.3	95.6	146.9
2006	49.8	98.3	148.1
2007	49.3	94.3	143.6

	Current dollars (billions)		
	Federal	State and local	Total
1998	39.4	73.3	112.7
1999	52.6	77.2	129.7
2000	47.1	80.9	128.1
2001	43.2	82.3	125.5
2002	45.9	85.5	131.4
2003	46.4	86.3	132.8
2004	46.3	90.0	136.3
2005	51.3	95.6	146.9
2006	52.2	103.1	155.3
2007	54.0	103.3	157.3

NOTES: Details may not add to total due to rounding. To eliminate the effects of inflation over time, the Bureau of Transportation Statistics (BTS) converted current dollars to chained 2005 dollars. Chained dollars or chain-type indexes show how revenue or expenditures have changed over time by removing the effects of price fluctuations, which may obscure revenue or expenditure changes expressed in current dollars. BTS used the *Price Index for Government Consumption Expenditures and Gross Investment* as the price deflator. The price index figures were obtained from the Bureau of Economic Analysis, available at http://www.bea.gov/national/nipaweb/SelectTable.asp?Selected=N#S3. Previous editions of this table were based on chained 2000 dollars, and thus this table is not comparable with previous editions. Local government receipts from motor fuel, motor vehicle, and toll highway charges are not included in 2007.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Government Transportation Financial Statistics 2009* as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, tables 3-27a and 3-27b, available at http://www.bts.gov/publications/national_transportation_statistics/ as of April 2010.

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

TABLE 1-3-15 Federal Government Transportation Revenues by Mode: FY 2007

	Chained 2005 dollars (billions)	Percentage of total
Highway	36.58	74.19
Air	10.95	22.20
Water	1.71	3.47
Pipeline	0.05	0.11
General support	0.01	0.03
Total	**49.31**	**100.00**

NOTES: Details may not add to total and percentages may not add to 100 due to rounding. To eliminate the effects of inflation over time, the Bureau of Transportation Statistics (BTS) converted current dollars to chained 2005 dollars. Chained dollars or chain-type indexes show how revenue or expenditures have changed over time by removing the effects of price fluctuations, which may obscure revenue or expenditure changes expressed in current dollars. BTS used the *Price Index for Government Consumption Expenditures and Gross Investment* as the price deflator. The price index figures were obtained from the Bureau of Economic Analysis, available at http://www.bea.gov/national/nipaweb/SelectTable.asp?Selected=N#S3. Previous editions of this table used chained 2000 dollars, and thus this table is not comparable to previous editions. Revenue is attributed to the mode from which it is collected, so money dedicated to transit from the highway trust fund is considered highway revenue. Local government outlays are not included for 2007.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Government Transportation Financial Statistics 2009* as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, tables 3-29a and 3-29b, available at http://www.bts.gov/publications/national_transportation_statistics/ as of April 2010.

Federal transportation expenditures consist of Federal Government direct spending only, excluding grants to State and local governments. State and local expenditures include outlays of the State and local governments funded by all sources of funds, including transportation revenues, grants, and borrowing.

TABLE 1-3-16 Federal, State, and Local Government Transportation Expenditures: FY 1998–2007

	Chained 2005 dollars (billions)		
	Federal	**State and local**	**Total**
1998	27.5	185.2	212.7
1999	26.4	203.4	229.8
2000	25.6	200.3	225.9
2001	35.8	213.4	249.1
2002	41.1	216.1	257.2
2003	47.1	215.6	262.7
2004	41.5	209.9	251.4
2005	35.0	208.0	243.1
2006	34.2	211.2	245.3
2007	33.4	168.9	202.4

	Current dollars (billions)		
	Federal	**State and local**	**Total**
1998	21.2	142.4	163.5
1999	21.0	161.4	182.3
2000	21.1	165.3	186.4
2001	30.3	180.9	211.2
2002	35.8	188.0	223.8
2003	42.7	195.4	238.1
2004	39.3	198.4	237.6
2005	35.0	208.0	243.1
2006	35.8	221.4	257.2
2007	36.6	185.1	221.7

NOTES: Details may not add to total due to rounding. To eliminate the effects of inflation over time, the Bureau of Transportation Statistics (BTS) converted current dollars to chained 2005 dollars. Chained dollars or chain-type indexes show how revenue or expenditures have changed over time by removing the effects of price fluctuations, which may obscure revenue or expenditure changes expressed in current dollars. BTS used the *Price Index for Government Consumption Expenditures and Gross Investment* as the price deflator. The price index figures were obtained from the Bureau of Economic Analysis, available at http://www.bea.gov/national/nipaweb/SelectTable.asp?Selected=N#S3. Previous editions of this table used chained 2000 dollars, so this table is not comparable to previous editions.To avoid double counting, federal expenditures exclude grants to state and local governments. Local government outlays for highway are not included in 2007.

SOURCE: U. S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Government Transportation Financial Statistics 2009* as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, tables 3-29a and 3-29b, available at http://www.bts.gov/publications/national_transportation_statistics/ as of April 2010.

Federal transportation expenditures consist of Federal Government direct spending only, excluding grants to State and local governments.

TABLE 1-3-17 Federal Government Transportation Expenditures by Mode: FY 2007

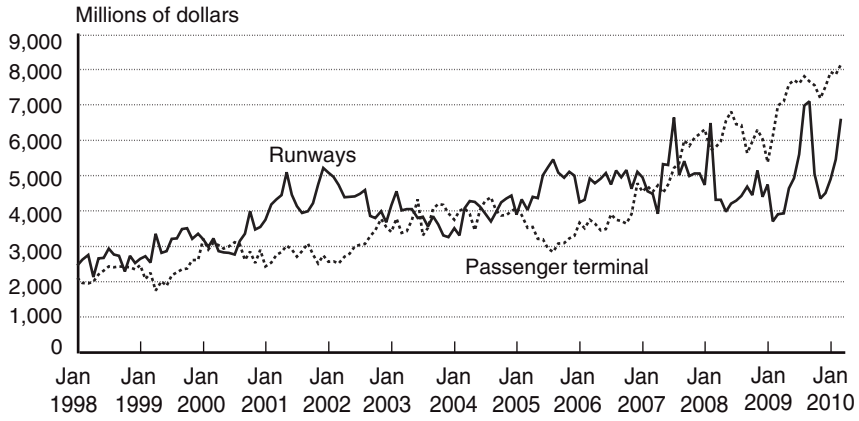
	Chained 2005 dollars (billions)	Percent of total
Highway	2.45	7.3
Transit	0.09	0.3
Railroads	1.39	4.2
Air	21.68	64.8
Water	6.67	19.9
Pipeline	0.06	0.2
General support	1.11	3.3
Total	**33.45**	**100.0**

NOTES: Federal transportation expenditures consist of Federal Government direct spending only, excluding grants to state and local governments. Details may not add to total and percents may not add to 100 due to rounding. To eliminate the effects of inflation over time, the Bureau of Transportation Statistics (BTS) converted current dollars to chained 2005 dollars. Chained dollars or chain-type indexes show how revenue or expenditures have changed over time by removing the effects of price fluctuations, which may obscure revenue or expenditure changes expressed in current dollars. BTS used the *Price Index for Government Consumption Expenditures and Gross Investment* as the price deflator. The price index figures were obtained from the Bureau of Economic Analysis, available at http://www.bea.gov/national/nipaweb/SelectTable.asp?Selected=N#S3. Previous editions of this table used chained 2000 dollars, so this table is not comparable to previous editions.

SOURCE: U. S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Government Transportation Financial Statistics 2009* as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 3-29b, available at http://www.bts.gov/publications/national_transportation_statistics/ as of April 2010.

FIGURE 1-3-18 State and Local Expenditures on Air Transportation Construction: January 1998–March 2010

Monthly data, seasonally adjusted annual rate (millions of dollars)



SOURCE: U.S. Department of Commerce, U.S. Census Bureau, *Construction Spending*, available at http://www.census.gov/const/www/c30index.html as of July 2010.

TABLE 1-3-18 State and Local Expenditures on Air Transportation Construction: January 2008–March 2010

Monthly data, seasonally adjusted annual rate (millions of dollars)

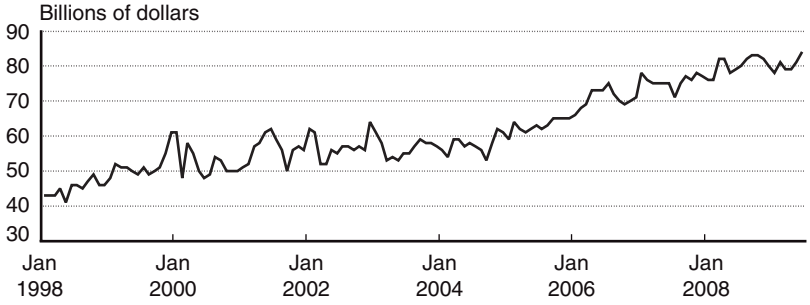
	Runways	Passenger terminals
January 2008	4,736	6,309
February 2008	6,482	5,715
March 2008	4,313	5,801
April 2008	4,315	5,976
May 2008	3,982	6,551
June 2008	4,208	6,809
July 2008	4,288	6,451
August 2008	4,425	6,426
September 2008	4,684	5,634
October 2008	4,452	5,962
November 2008	5,145	6,289
December 2008	4,399	6,035
January 2009	4,748	5,367
February 2009	3,705	6,112
March 2009	3,906	6,984
April 2009	3,926	7,101
May 2009	4,638	7,583
June 2009	4,932	7,696
July 2009	5,594	7,601
August 2009	6,973	7,808
September 2009	7,101	7,662
October 2009	5,046	7,555
November 2009	4,345	7,181
December 2009	4,506	7,520
January 2010	4,897	7,930
February 2010	5,452	7,851
March 2010	6,608	8,144

NOTES: Expenditure refers to the value of work done on construction projects underway during a given period time, regardless of when work on each individual project was started or when payment was made to the contractors. *Runways* include pavement and lighting. Other categories such as air freight terminals, air traffic towers, hangars, and other related facilities and structures are included for the air transportation total, but are not included in the monthly state and local estimates.

SOURCE: U.S. Department of Commerce, U.S. Census Bureau, *Construction Spending*, available at http://www.census.gov/const/www/c30index.html as of July 2010.

FIGURE 1-3-19 State and Local Expenditures on Highways and Streets Construction: January 1998–June 2009

Monthly data, seasonally adjusted annual rate



SOURCE: U.S. Department of Commerce, U.S. Census Bureau, *Construction Spending*, available at http://www.census.gov/const/www/c30index.html as of December 2009.

TABLE 1-3-19 Federal, State, and Local Expenditures on Highways and Streets Construction: January 2008–July 2010

Monthly data, seasonally adjusted annual rate (millions of dollars)

	Total public expenditures	Federal	State and local
January 2008	75,757	680	75,077
February 2008	77,736	726	77,010
March 2008	82,406	825	81,581
April 2008	82,029	843	81,186
May 2008	78,488	792	77,696
June 2008	79,236	681	78,555
July 2008	80,069	707	79,362
August 2008	81,822	738	81,084
September 2008	81,638	608	81,030
October 2008	82,927	802	82,125
November 2008	83,884	753	83,131
December 2008	80,885	793	80,092
January 2009	80,560	806	79,754
February 2009	81,647	797	80,850
March 2009	79,532	708	78,824
April 2009	79,217	690	78,527
May 2009	78,752	719	78,033
June 2009	81,816	794	81,022
July 2009	82,619	1,019	81,600
August 2009	82,666	804	81,862
September 2009	84,528	824	83,704
October 2009	85,795	798	84,997
November 2009	81,245	1,228	80,017
December 2009	78,999	633	78,366
January 2010	76,767	709	76,058
February 2010	75,714	954	74,760
March 2010	79,000	870	78,130

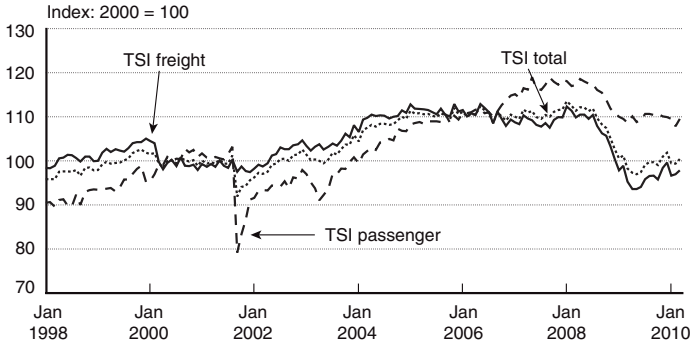
NOTES: Expenditure refers to the value of work done on construction projects underway during a given period of time, regardless of when work on each individual project was started or when payment was made to the contractors.
Construction includes new buildings, renovations, mechanical and electrical installations, site preparation, and other materials and structures incidental to construction. Maintenance is not included.
Highways and streets are the largest component of public transportation infrastructure spending. Pavement is the largest part of that spending, accounting for about 70 percent of state and local roadway expenditures.
The sum of details may not add to totals due to rounding.

SOURCE: U.S. Department of Commerce, U.S. Census Bureau, *Construction Spending*, available at http://www.census.gov/const/www/c30index.html as of July 2010.

Economic Competitiveness

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

FIGURE 1-4-1 Transportation Services Index (TSI): January 1998–March 2010
Monthly data, seasonally adjusted



SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Transportation Services Index*, available at http://www.bts.gov/ as of June 2010.

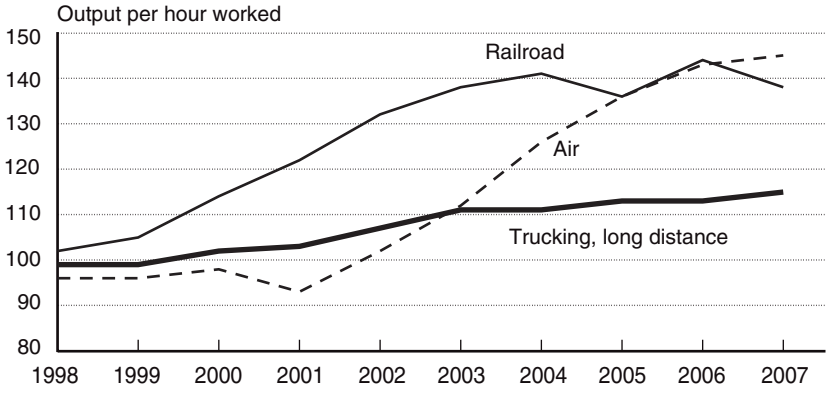
TABLE 1-4-1 Transportation Services Index (TSI): January 2008–March 2010
Index: 2000 = 100

	TSI total	TSI freight	TSI passenger
January 2008	113.50	112.32	118.07
February 2008	112.44	111.30	116.89
March 2008	111.34	109.78	117.18
April 2008	112.15	110.44	118.51
May 2008	112.01	110.41	117.97
June 2008	111.21	109.50	117.52
July 2008	111.82	110.36	117.32
August 2008	109.64	107.90	116.07
September 2008	108.19	106.21	115.43
October 2008	107.37	105.62	113.82
November 2008	105.07	103.24	111.77
December 2008	102.60	100.33	110.76
January 2009	100.49	97.83	109.98
February 2009	101.18	98.85	109.51
March 2009	98.20	95.27	108.57
April 2009	97.23	93.59	110.04
May 2009	96.89	93.53	108.74
June 2009	97.33	93.99	109.08
June 2009	97.42	94.07	109.25
July 2009	99.08	95.81	110.63
August 2009	99.62	96.50	110.63
September 2009	99.66	96.62	110.40
October 2009	99.04	95.76	110.61
November 2009	100.95	98.40	110.05
December 2009	101.79	99.54	109.89
January 2010	99.43	96.59	109.48
February 2010	99.31	96.92	107.80
March 2010	100.36	97.78	109.51

NOTE: January through March 2010 data are preliminary.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Transportation Services Index*, available at http://www.bts.gov/ as of June 2010.

FIGURE 1-4-2 Labor Productivity of the For-Hire Transportation Industries: 1998–2007



SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Industry Productivity*, available at http://www.bls.gov/lpc/ as of August 2009 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, tables 3-24a and 3-24b, available at http://www.bts.gov/publications/national_transportation_statistics/ as of October 2009.

TABLE 1-4-2 Labor Productivity of the For-Hire Transportation Industries: 1998–2007

	SIC categories (Index: 1997 = 100)			NAICS categories (Index: 1997 = 100)		
	Trucking, except local	Bus carriers, Class I	Petroleum pipeline	Railroad	Trucking, long distance	Air
1998	98	84	102	102	99	96
1999	99	108	108	105	99	96
2000	99	90	105	114	102	98
2001	U	U	U	122	103	93
2002	U	U	U	132	107	102
2003	U	U	U	138	111	112
2004	U	U	U	141	111	126
2005	U	U	U	136	113	136
2006	U	U	U	144	113	143
2007	U	U	U	138	115	145

KEY: U = Data are unavailable.

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

Air includes establishments that provide scheduled and nonscheduled air transportation of passengers and cargo using aircraft, e.g. airplanes and helicopters.

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

SIC categories were converted to a 1997=100 index from a 1987=100 index, by the Bureau of Transportation Statistics.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Industry Productivity*, available at http://www.bls.gov/lpc/ as of August 2009 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, tables 3-24a and 3-24b, available at http://www.bts.gov/publications/national_transportation_statistics/ as of October 2009.

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

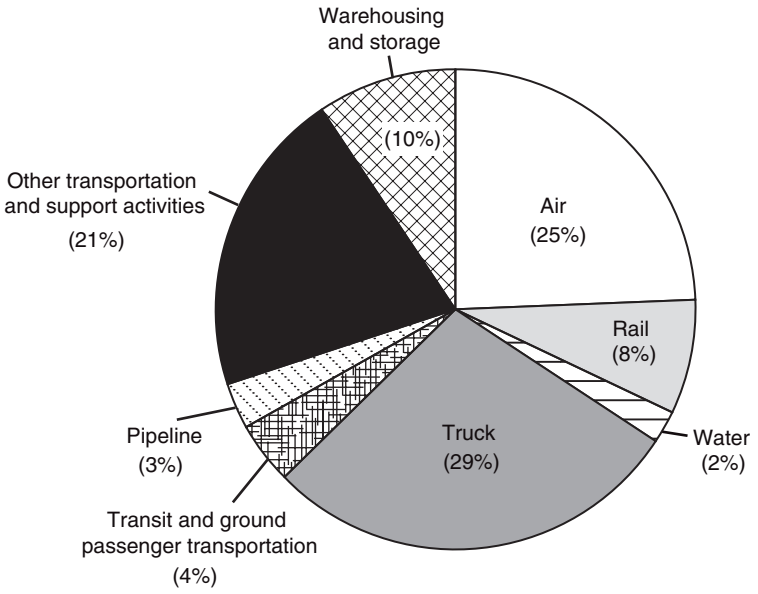
TABLE 1-4-3 Multifactor Productivity Index: 1998–2007
Index 1998 = 100

	Railroad transportation	Air transportation	Business sector (all industries)
1998	100.0	100.0	100.0
1999	102.3	98.7	101.4
2000	104.5	97.9	102.6
2001	105.5	94.1	103.1
2002	107.5	101.1	105.2
2003	109.9	105.1	108.1
2004	113.4	111.8	111.0
2005	111.2	116.9	112.5
2006	116.9	120.5	113.2
2007	112.0	121.9	113.6

NOTES: Source data are indexes with base years of 1997 (air and rail), 2000 (business). The Bureau of Transportation Statistics reindexed these data so that 1998 is the base year for all.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Multifactor Productivity*, available at http://www.bls.gov/mfp/ as of December 2009.

FIGURE 1-4-4 U.S. Gross Domestic Product Attributed to For-Hire Transportation Services: 2007



NOTE: Percents may not add to 100 due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, *Industry Economic Accounts*, available at http://www.bea.gov/ as of November 2009 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 3-1b, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-4-4 U.S. Gross Domestic Product Attributed to For-Hire Transportation Services: 1998–2007
Chained 2000 Dollars (billions)

	U.S. Gross Domestic Product (GDP), total	For-hire transportation services, total	Air	Rail	Water	Truck	Transit and ground passenger transportation	Pipeline	Other transportation and support activities	Warehousing and storage
1998	9,067	275.8	48.7	24.4	7.0	91.0	14.3	6.9	62.6	22.0
1999	9,470	287.4	52.9	24.8	6.4	91.9	14.7	7.7	66.2	23.4
2000	9,817	301.6	57.7	25.5	7.2	92.8	14.5	8.7	70.2	25.0
2001	9,891	293.6	57.0	24.8	6.8	87.9	14.5	8.3	69.4	24.4
2002	10,049	300.2	62.8	24.4	5.6	87.5	14.6	9.6	70.6	25.6
2003	10,301	306.2	67.2	25.7	5.4	88.9	14.3	9.3	70.3	26.9
2004	10,676	334.1	75.5	26.1	6.1	97.3	15.4	10.6	77.4	28.3
2005	10,990	347.6	81.3	27.4	6.0	101.0	15.0	11.6	77.2	32.4
2006	11,295	354.8	81.5	28.7	7.2	101.8	14.9	11.5	79.0	33.4
2007	11,524	363.7	90.3	28.7	8.0	105.3	15.4	11.6	76.7	34.7

NOTE: Details may not add to totals due to the nature of chained dollar calculations.

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, *Industry Economic Accounts*, available at http://www.bea.gov/ as of March 2009 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 3-1b, available at http://www.bts.gov/publications/national_transportation_statistics/ as of November 2009.

TABLE 1-4-5 U.S. Gross Domestic Product Attributed to Transportation-Related Final Demand: 1998–2009
Chained 2005 dollars (billions)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
U.S. Gross Domestic Product (GDP), total	10,283.5	10,779.8	11,226.0	11,347.2	11,553.0	11,840.7	12,263.8	12,638.4	12,976.2	13,254.1	13,312.2	12,987.4
Domestic transportation-related final demand, total	1,165.1	1,217.5	1,211.8	1,223.9	1,226.2	1,229.4	1,250.8	1,266.1	1,254.6	1,261.7	1,167.4	U
Total transportation in GDP (percent)	11.33	11.29	10.79	10.79	10.61	10.38	10.20	10.02	9.67	9.52	8.77	U
Personal consumption of transportation, total	831.4	882.1	903.6	921.5	937.3	958.3	976.6	979.3	960.5	971.6	893.0	U
Motor vehicles and parts	316.1	345.1	356.1	374.3	394.0	405.3	411.3	409.6	396.6	402.4	347.5	317.2
Gasoline and oil	256.1	263.5	261.3	263.6	267.5	276.3	282.1	283.8	278.9	280.9	271.7	U
Transportation services	259.2	273.5	286.2	283.6	275.8	276.7	283.2	285.9	285.0	288.3	273.8	263.7
Gross private domestic investment, total	170.8	198.0	194.1	177.4	161.6	147.4	169.3	188.8	204.9	185.9	137.9	U
Transportation structures	8.8	7.7	7.9	7.8	7.4	7.0	7.0	7.1	8.4	8.5	9.0	U
Transportation equipment	162.0	190.3	186.2	169.6	154.2	140.4	162.3	181.7	196.5	177.4	128.9	U
Exports (+), total	209.3	208.1	204.5	195.8	194.5	187.4	199.2	216.6	233.8	256.5	256.5	207.3
Imports (-), total	254.6	288.4	313.8	305.2	309.4	315.1	339.4	353.2	374.7	381.2	347.0	257.3
Government transportation-related purchases, total	208.2	217.7	223.4	234.4	242.2	251.4	245.1	234.6	230.1	228.9	227.0	U
Federal purchases	23.8	23.3	23.1	24.5	29.5	32.4	30.1	30.1	30.8	29.6	32.5	U
State and local purchases	173.5	182.8	189.1	198.3	201.2	201.3	197.6	188.6	184.9	180.5	179.1	U
Defense-related purchases	10.9	11.6	11.2	11.6	11.5	17.7	17.4	15.9	14.4	18.8	15.4	13.7

KEY: U = Data are unavailable.

NOTES: Due to independent rounding, details may not add to totals. *Total domestic transportation-related final demand* is the sum of *total personal consumption of transportation, total gross private domestic investment, net exports of transportation-related goods and services, and total government-related purchases*. *Federal purchases and State and local purchases* are the sum of consumption expenditures and gross investments. Defense-related purchases are the sum of the transportation of material and travel.

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, *National Income Product Accounts Tables*, tables 1.1.6, 2.3.6, 3.11.6, 3.15.6, 4.2.6, 5.4.6, and 5.5.6, available at http://www.bea.gov/national/nipaweb/SelectTable.asp?Selected=N#S2 as of Apr. 7, 2010 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 3-2c, available at http://www.bts.gov/publications/national_transportation_statistics/ as of April 2010.

TABLE 1-4-6 Employment in For-Hire Transportation and Selected Transporation-Related Industries: 1998–2008
Thousands (NAICS basis)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
U.S. labor force, total	125,930	128,993	131,785	131,826	130,341	129,999	131,435	133,703	136,086	137,598	137,066
Transportation-related labor force, total	13,481	13,767	13,907	13,752	13,438	13,224	13,259	13,395	13,492	13,516	13,234
Transportation and warehousing (48-49)	4,168	4,300	4,410	4,372	4,224	4,185	4,249	4,361	4,470	4,541	4,505
Air transportation (481)	563	586	614	615	564	528	515	501	487	492	493
Rail transportation (482)	225	229	232	227	218	218	226	228	228	234	230
Water transportation (483)	51	52	56	54	53	55	56	61	63	66	65
Truck transportation (484)	1,354	1,392	1,406	1,387	1,339	1,326	1,352	1,398	1,436	1,439	1,391
Transit and ground passenger transportation (485)	363	371	372	375	381	382	385	389	399	412	418
Pipeline transportation (486)	48	47	46	45	42	40	38	38	39	40	42
Scenic and sightseeing transportation (487)	25	26	28	29	26	27	27	29	28	29	28
Support activities for transportation (488)	497	518	537	539	525	520	535	552	571	584	590
Postal service (491)	881	890	880	873	842	809	782	774	770	769	748
Couriers and messengers (492)	568	586	605	587	561	562	557	571	582	581	576
Warehousing and storage (493)	474	494	514	514	517	528	558	595	638	665	673
Transportation-related manufacturing											
Petroleum and coal products manufacturing (324)	135	128	123	121	118	114	112	112	113	115	117
Tire manufacturing (32621)	87	87	87	82	76	72	70	67	60	59	60
Rubber and plastic hoses and belting manufacturing (32622)	29	30	30	29	28	28	28	29	28	28	27
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing (334511)	163	161	149	150	148	145	151	157	158	158	153
Transportation equipment manufacturing (336)	2,078	2,089	2,057	1,939	1,830	1,775	1,767	1,772	1,769	1,712	1,607
Other transportation-related industries											
Highway, street, and bridge construction (2373)	308	336	340	346	346	340	347	351	348	345	329
Motor vehicle and motor vehicle parts and supplies merchant wholesalers (4231)	354	360	356	347	346	342	341	344	348	350	339
Transportation equipment and supplies merchant wholesalers (42386)	37	40	39	36	34	32	32	33	33	34	35
Petroleum and petroleum products merchant wholesalers (4247)	122	123	119	114	111	106	101	100	100	101	101
Motor vehicle parts dealers (441)	1,741	1,797	1,847	1,855	1,879	1,883	1,902	1,919	1,910	1,908	1,845
Gasoline stations (447)	961	944	936	925	896	882	876	871	864	862	843
Automotive equipment rental and leasing (5321)	189	199	208	208	195	193	197	199	199	196	195

Continued on next page

TABLE 1-4-6 Employment in For-Hire Transportation and Selected Transportation-Related Industries: 1998–2008 *(continued)*
Thousands (NAICS basis)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Travel arrangement and reservation services (5615)	304	297	299	285	252	235	226	224	226	227	228
Other ambulatory health care services (6219)	171	173	173	180	187	195	200	206	217	228	239
Automotive repair and maintenance (8111)	828	864	888	904	900	894	891	886	887	885	858
Parking lots and garages (81293)	85	89	93	96	96	100	102	103	108	111	113
Government employment, total	842	862	873	890	932	894	888	888	885	890	895
U.S. Department of Transportation (U.S. DOT)	69	65	64	66	99	59	57	56	54	54	56
State and Local	772	797	809	824	832	835	830	833	831	835	839

NOTES: *Total U.S. labor force* excludes farm employment. *Transportation and warehousing* total does not include postal service. *Tire manufacturing* includes tire retreading. *Transportation equipment and supplies merchant wholesalers* do not include motor vehicle wholesalers. *Government employment* does not include all government agencies (e.g., the National Transportation Safety Board). *The U.S. Department of Transportation* was created in 1966. Data are for fiscal year and include permanent civilians as well as temporary employees and military. The United States Coast Guard (USCG) and the Transportation Security Administration (TSA) were transferred to the U.S. Department of Homeland Security in 2003.

State and Local employment statistics data are significantly different from the data reported in the previous editions of the report, because current data include employment for air, water and transit modes in addition to highway. It is full-time equivalent employment.
Details may not add to totals due to rounding.

SOURCES: **All Data Except Government:** U.S. Department of Labor, Bureau of Labor Statistics; **U.S. DOT:** Office of the Secretary of Transportation; **State and Local:** U.S. Department of Commerce, U.S. Census Bureau as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 3-19b, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-4-7 Average Annual U.S. Airline Industry Full Time Equivalent Employees: 2000-2009

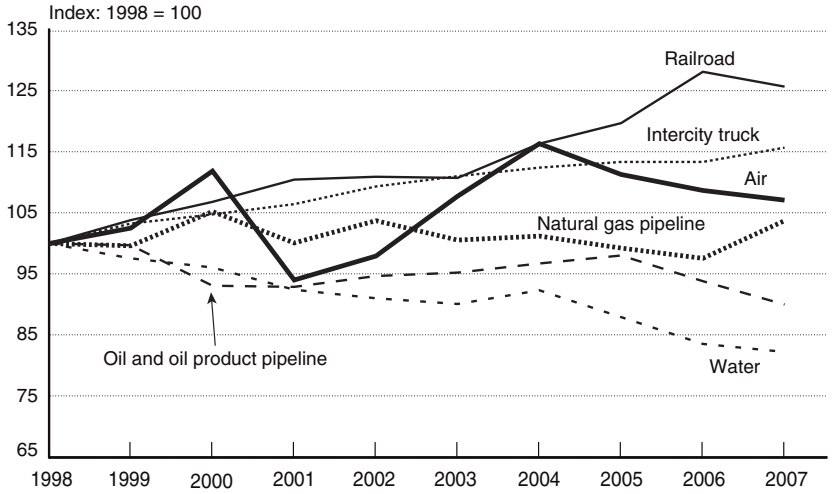
	Average annual employee count
2000	672,416
2001	668,000
2002	601,650
2003	574,842
2004	571,720
2005	562,260
2006	545,189
2007	556,601
2008	553,186
2009	522,777

NOTE: 1.0 Part Time Employee = 0.5 Full Time Employee

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *Airline Employment Data by Month*, available at http://www.bts.gov/ as of July 2010.

FIGURE 1-4-8 Index of Ton-Miles of Freight: 1998–2007

Ton-miles



SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, special tabulation as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-46b, available at http://www.bts.gov/publications/national_transportation_statistics/ as of September 2009.

TABLE 1-4-8 U.S. Ton-Miles of Freight: 1998–2007

Billions

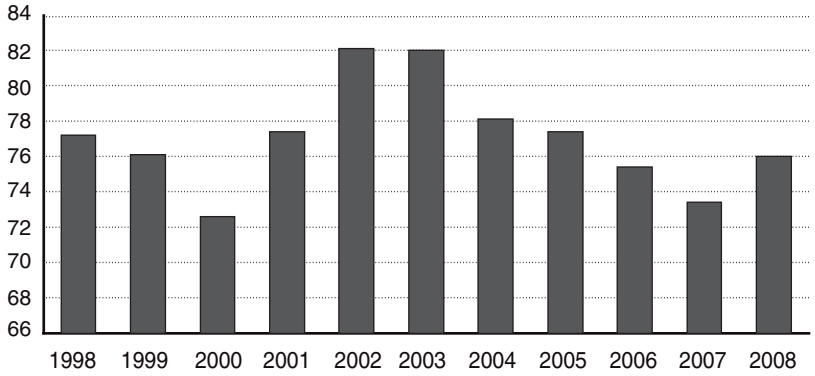
	Air	Intercity Truck	Railroad	Water	Oil and oil products pipeline	Natural gas pipeline	Total
1998	14	1,140	1,448	673	620	334	4,228
1999	15	1,176	1,504	656	618	332	4,300
2000	16	1,193	1,546	646	577	351	4,329
2001	13	1,213	1,599	622	576	334	4,357
2002	14	1,245	1,606	612	586	346	4,409
2003	15	1,265	1,604	606	590	335	4,415
2004	16	1,281	1,684	621	600	338	4,541
2005	16	1,291	1,733	591	608	331	4,570
2006	15	1,291	1,856	562	581	325	4,631
2007	15	1,317	1,820	553	558	346	4,609

NOTES: Details may not add to totals due to rounding.

BTS is exploring potential improvements to truck ton-mile estimates, including revised methodology that makes use of results from the Commodity Flow Survey (CFS), estimates for industries out of scope from the CFS, and of local truck traffic ton-miles.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, special tabulation as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-46b, available at http://www.bts.gov/publications/national_transportation_statistics/ as of September 2009.

FIGURE 1-4-9 Major U.S. Air Carrier On-Time Performance: 1998–2008
Percent on-time flight arrivals



SOURCES: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *Airline On-Time Tables*, table 1 - Summary of Airline On-Time Performance Year-to-date through December 2008, available at http://www.bts.gov/programs/airline_information/airline_ontime_tables as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-62, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-4-9 Major U.S. Air Carrier On-Time Performance: 1998–2008
Thousands of flights

	Late departures	Late arrivals	Cancellations	Diversions	On-time flight arrivals (percent)	Total operations
1998	870	1,070	145	13	77.2	5,385
1999	937	1,153	154	14	76.1	5,528
2000	1,132	1,356	187	14	72.6	5,683
2001	954	1,104	231	13	77.4	5,968
2002	717	868	65	8	82.1	5,271
2003	834	1,058	101	11	82.0	6,489
2004	1,188	1,421	128	14	78.1	7,129
2005	1,279	1,466	134	14	77.4	7,141
2006	1,425	1,616	122	16	75.4	7,142
2007	1,573	1,804	161	17	73.4	7,455
2008	1,327	1,525	137	17	76.0	7,008

NOTES: *Late departures* are flights departing 15 minutes or more after the scheduled departure time. *Late arrivals* are flights arriving 15 minutes or more after the scheduled arrival time. Late departures and arrivals are strongly seasonal and are affected by weather in winter and summer months and by heavy demand in summer. *Cancellations* are flights that were not operated but were listed in a carrier's computer reservation system within 7 calendar days of the scheduled departure. *Diversions* are flights that left from the scheduled departure airport but flew to a nondestination point. Diverted flights may or may not ultimately reach their scheduled destination point.

For the monthly number of carriers reporting, please refer to *Air Travel Consumer Reports* available at http://airconsumer.dot.gov/reports/index.htm

SOURCES: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *Airline On-Time Tables*, table 1 - Summary of Airline On-Time Performance Year-to-date through December 2008, available at http://www.bts.gov/programs/airline_information/airline_ontime_tables as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-62, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-4-10 Airline Delays by Cause: 2003–2009

	Number of scheduled operations	Number of delayed flights	Average minutes of delay	Percentage of delay minutes due to:				
				Carrier	Extreme weather	National aviation system	Security	Late aircraft
2003	6,488,540	1,057,804	48.9	26.7	5.9	36.2	0.3	30.9
2004	7,129,270	1,421,393	51.4	25.8	6.9	33.5	0.3	33.6
2005	7,140,595	1,466,066	52.2	28.0	6.2	31.4	0.2	34.2
2006	7,141,922	1,615,538	54.0	27.8	5.6	29.4	0.3	37.0
2007	7,455,458	1,804,029	56.0	28.6	5.7	27.9	0.2	37.6
2008	7,009,726	1,524,736	56.8	27.8	5.4	30.2	0.1	36.6
2009	6,450,285	1,218,288	54.2	26.6	3.4	37.0	0.2	32.8

NOTES: For the monthly number of carriers reporting, please refer to the *Air Travel Consumer Reports* available at http://airconsumer.dot.gov/reports/index.htm.

A flight is considered delayed when it arrived 15 or more minutes later than scheduled. Average minutes are calculated for delayed flights only. When multiple causes are assigned to one delayed flight, each cause is prorated based on delayed minutes for which it is responsible. Percents may not add to 100 due to rounding. Additional information is available at http://www.bts.gov/help/aviation/index.html.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *TranStats Database*, *Airline Service Quality Performance 234*, available at http://www.transtats.bts.gov/OT_Delay/OT_DelayCause1.asp as of July 2010.

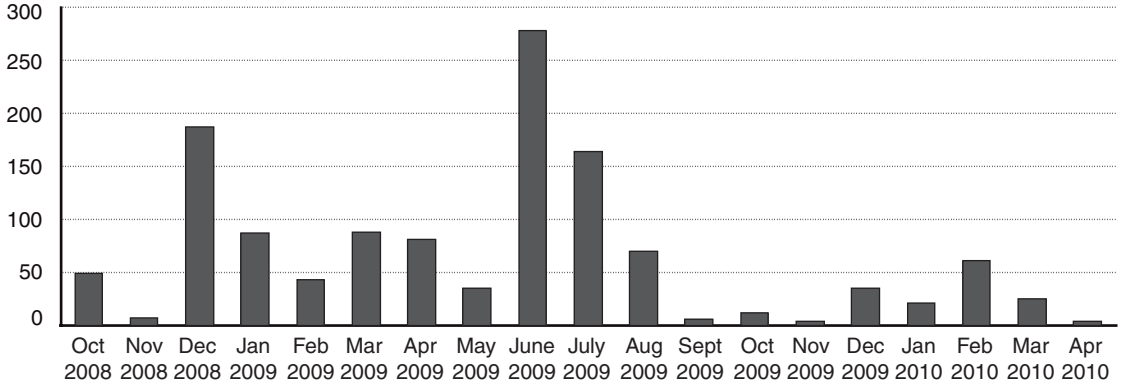
TABLE 1-4-11 Airline Delays by Length of Delay by Year: 1998–2009

	Total number of arriving flights	Percentage of arriving flights, delayed	Average length of delay (minutes)	Percentage of all delayed flights by length of time delayed				
				15-29 minutes	30-59 minutes	60-89 minutes	90-119 minutes	More than 120 minutes
1998	5,227,051	20.5	49.3	45.0	30.3	11.5	5.9	7.2
1999	5,360,018	21.5	50.4	44.1	30.6	11.9	5.9	7.6
2000	5,481,303	24.7	52.5	41.5	31.3	12.6	6.3	8.3
2001	5,723,673	19.3	49.2	44.2	31.4	11.8	5.6	7.0
2002	5,197,860	16.7	46.8	47.4	30.9	10.7	4.9	6.1
2003	6,375,690	16.6	48.9	44.9	31.2	11.6	5.5	6.8
2004	6,987,729	20.3	51.4	42.3	31.3	12.4	6.1	7.8
2005	6,992,838	21.0	52.2	41.9	31.2	12.5	6.3	8.2
2006	7,003,802	23.1	54.0	40.4	31.3	12.9	6.5	8.9
2007	7,277,467	24.8	56.0	39.1	31.0	13.2	6.9	9.7
2008	6,853,191	22.2	56.8	39.2	30.6	13.1	6.9	10.2
2009	6,345,445	19.2	54.2	40.8	30.8	12.8	6.6	9.0

NOTES: For the monthly number of carriers reporting, please refer to the *Air Travel Consumer Reports* available at http://airconsumer.dot.gov/reports/index.htm. A flight is considered delayed when it arrived 15 or more minutes later than scheduled. Arriving flights consists of scheduled operations less canceled and diverted flights. Average minutes are calculated for delayed flights only. Percents may not add to 100 due to rounding.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Transtats Database, Airline On-Time Performance Data*, available at http://www.transtats.bts.gov/databases.asp?Subject_ID=3&Subject_Desc=Passenger%20Travel&Mode_ID2=0 as of July 2010.

FIGURE 1-4-12 Monthly Summary of Tarmac Times Over 3 Hours: October 2008–April 2010



SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *Tarmac Times*, available at http://www.bts.gov/ as of July 2010.

TABLE 1-4-12 Monthly Summary of Tarmac Times Over 3 Hours: October 2008–April 2010

Number and percent of flights with tarmac times of 3 hours or more

	Number of regularly scheduled flights	Tarmac times of 3 hours or longer		Stage of operation of the 3-hour tarmac time				
		Total	Percent	Prior to cancellation	Multiple gate departure	Taxi-out	Taxi-in	At diversion airport
Oct 2008	556,205	49	0.01	2	6	35	0	6
Nov 2008	523,272	7	0.00	0	1	4	0	2
Dec 2008	544,956	187	0.03	40	14	116	7	10
Jan 2009	532,339	87	0.02	7	10	70	0	0
Feb 2009	488,410	43	0.01	5	4	34	0	0
Mar 2009	557,422	88	0.02	6	9	66	0	7
Apr 2009	537,793	81	0.02	12	10	47	0	12
May 2009	546,832	35	0.01	7	2	25	1	0
June 2009	557,594	278	0.05	40	42	172	1	23
July 2009	580,134	164	0.03	21	20	105	0	18
Aug 2009	568,301	70	0.01	7	11	45	0	7
Sep 2009	510,852	6	0.00	0	0	4	0	2
Oct 2009	531,799	12	0.00	0	0	12	0	0
Nov 2009	509,540	4	0.00	0	1	2	0	1
Dec 2009	529,269	35	0.01	5	3	22	0	5
Jan 2010	521,809	21	0.00	2	3	11	2	3
Feb 2010	481,988	61	0.00	5	1	53	1	1
Mar 2010	548,282	25	0.00	9	2	11	1	2
Apr 2010	529,330	4	0.00	0	0	1	0	3

NOTE: January 2009 includes one flight with two separate 3-hour tarmac times. Northwest Flight 1491 on Jan. 28, 2009 was on the tarmac for 188 minutes before returning to the gate. The flight departed the gate a second time and was on the tarmac for 199 minutes before wheels-off. Details of the flight are listed as a 3-hour *multiple gate departure* and a 3-hour *Taxi-out*. Table 12 of the *Air Travel Consumer Report* lists number of flights with three-hour tarmac times and counts NW Flight 1491 as a single flight.

Explanation of Stage of Operation:

Prior to cancellation: Flight left the gate but was cancelled at the origin airport.
Multiple gate departure: Flight left the gate, then returned and then left again to resume normal operation. Tarmac time is the time before the return to the gate.
Taxi-out: The time between gate departure and wheels-off.
Taxi-in: The time between wheels-on and gate arrival.
At diversion airport: The tarmac time at the alternate airport.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *Tarmac Times*, available at http://www.bts.gov/ as of July 2010.

TABLE 1-4-13 Amtrak Hours of Delay by Cause: 2000–2009

	Amtrak	Host railroad	Other	Total
2000	23,337	43,881	3,176	70,396
2001	27,822	52,273	3,741	83,837
2002	26,575	55,090	4,266	85,932
2003	25,711	57,346	5,355	88,413
2004	28,328	61,256	5,577	95,162
2005	25,549	64,097	5,613	95,259
2006	23,968	71,387	6,166	101,522
2007	22,902	72,565	6,187	101,655
2008	23,223	64,724	6,618	94,566
2009	21,813	46,842	10,648	79,304

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

Host railroad includes all operating delays not attributable to Amtrak when operating on tracks of a host railroad, such as track- and signal-related delays, power failures, freight and commuter train interference, and routing delays. *Other* includes delays not attributable to Amtrak or host railroads, such as customs and immigrations, law enforcement action, weather, or waiting for scheduled departure time.

SOURCE: National Railroad Passenger Corporation (Amtrak), personal communication, November 2009 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-67, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-4-14 U.S.-International Trade in Transportation-Related Goods: 1998–2009

Millions of current dollars

	Imports	Exports	Total	U.S. trade balance
1998	140,053	114,971	255,024	-25,082
1999	166,553	111,469	278,022	-55,083
2000	185,027	105,429	290,456	-79,598
2001	183,003	106,860	289,863	-76,143
2002	190,880	108,744	299,624	-82,136
2003	194,863	107,796	302,658	-87,067
2004	211,111	118,749	329,860	-92,362
2005	219,522	137,214	356,736	-82,308
2006	236,269	164,870	401,139	-71,400
2007	239,903	188,858	428,761	-51,045
2008	220,111	189,713	409,824	-30,398
2009	151,937	160,823	312,760	8,885

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

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, calculations based on data from U.S. Department of Commerce, U.S. International Trade Commission, *Interactive Tariff and Trade DataWeb*, available at http://dataweb.usitc.gov/ as of July 2010.

TABLE 1-4-15 U.S. Trade in Transportation-Related Goods by Commodity: 2009

Millions of current dollars

	Total trade	Trade balance
Vehicles other than railway	204,670	-57,466
Aircraft, spacecraft, and parts	101,301	64,613
Ships, boats, and floating structures	3,309	773
Railway locomotives and parts	3,478	964
Total, transportation-related goods	312,760	8,885
Total, all commodities	2,614,808	-500,944

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

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, calculations based on data from U.S. Department of Commerce, U.S. *International Trade Commissio*n, Interactive Tariff and Trade DataWeb, available at http://dataweb.usitc.gov/ as of July 2010.

TABLE 1-4-16 U.S. International Trade in Transportation-Related Services: 1998–2008

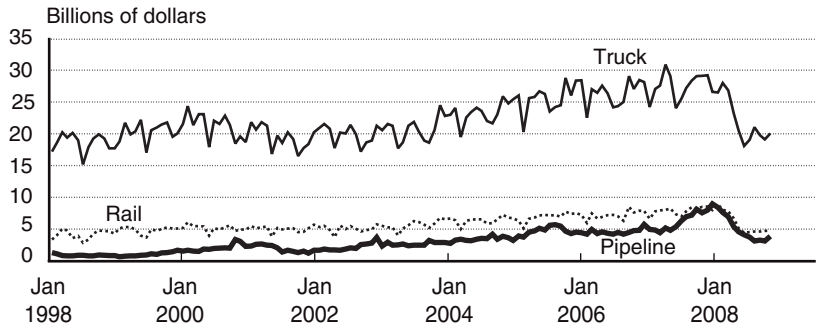
Millions of current dollars

	Imports	Exports	Total	Trade balance
1998	50,334	45,702	96,036	-4,632
1999	55,454	46,701	102,155	-8,753
2000	65,699	50,490	116,189	-15,209
2001	61,315	46,368	107,683	-14,947
2002	58,376	46,241	104,617	-12,135
2003	65,694	47,307	113,001	-18,387
2004	78,879	55,808	134,687	-23,071
2005	88,086	62,251	150,337	-25,835
2006	92,819	68,261	161,080	-24,558
2007	95,537	77,186	172,723	-18,351
2008	104,740	90,568	195,308	-14,172

NOTES: *Transportation-related services* include passenger fares and other transportation. It excludes receipts and payments for travel services, which includes purchases of goods and services (e.g., food, lodging, recreation, gifts, entertainment, and any incidental expense on a foreign visit). *Trade balance* is equal to exports minus imports. These data have not been adjusted for inflation because there is no specific deflator available for transportation-related services.

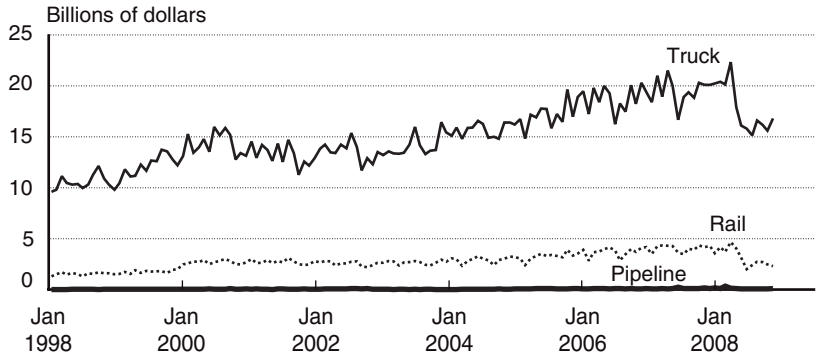
SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, calculations based on data from U.S. Department of Commerce, Bureau of Economic Analysis, *International Transactions Accounts Data*, table 3a, available at http://www.bea.gov/international/index.htm as of September 2009.

FIGURE 1-4-17A U.S. Surface Trade With Canada: January 1998–June 2009
Monthly data, not seasonally adjusted



SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *TransBorder Freight Data*, available at http://www.bts.gov/ntda/tbscd/prod.html as of September 2009.

FIGURE 1-4-17B U.S. Surface Trade With Mexico: January 1998–June 2009
Monthly data, not seasonally adjusted



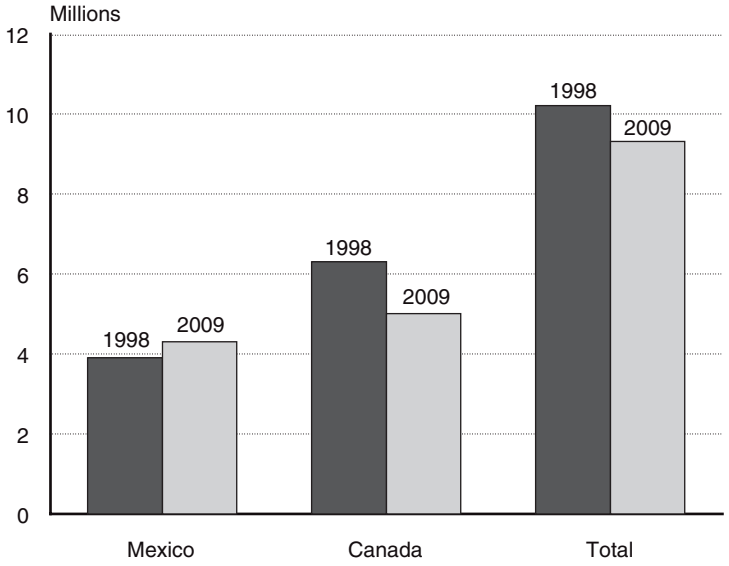
SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *TransBorder Freight Data*, available at http://www.bts.gov/ntda/tbscd/prod.html as of September 2009.

TABLE 1-4-17 U.S. Surface Trade with Canada and Mexico: January 2008–June 2009
Millions of dollars

	U.S. - Canada trade			U.S. - Mexico trade		
	Truck	Rail	Pipeline	Truck	Rail	Pipeline
January 2008	25,507	7,016	6,337	18,876	3,441	87
February 2008	27,171	7,802	6,996	19,363	3,978	96
March 2008	28,374	8,461	7,228	18,814	3,886	100
April 2008	29,043	8,185	8,169	20,299	4,325	86
May 2008	29,120	8,523	7,584	20,078	4,162	160
June 2008	29,193	8,548	8,007	20,086	4,252	89
July 2008	26,574	8,022	9,003	20,226	3,556	160
August 2008	26,469	8,910	8,417	20,367	4,156	101
September 2008	27,965	8,066	7,622	20,106	3,684	313
October 2008	26,819	7,809	6,985	22,322	4,657	107
November 2008	23,174	6,690	5,387	17,868	4,022	96
December 2008	20,535	5,162	4,594	16,084	3,111	51
January 2009	18,089	4,478	4,121	15,789	1,996	54
February 2009	19,057	4,539	3,736	15,123	2,402	49
March 2009	21,038	4,629	3,147	16,599	2,730	46
April 2009	19,769	4,663	3,285	16,159	2,703	53
May 2009	19,113	4,759	3,151	15,567	2,439	57
June 2009	20,031	4,795	3,911	16,783	2,285	68

NOTES: Surface freight is useful in monitoring the value and modal patterns of trade with Canada and Mexico, which are the United States's North American Free Trade Agreement (NAFTA) partners. Overall, Canada is the largest U.S. trading partner and Mexico ranks third. Surface modes include not only truck, rail, and pipeline, but also government mail and other miscellaneous modes.
SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *TransBorder Freight Data*, available at http://www.bts.gov/ntda/tbscd/prod.html as of September 2009.

FIGURE 1-4-18 Incoming Truck Crossings to the United States From Mexico and Canada: 1998 and 2009



SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Border Crossing/Entry Data*, available at http://www.transtats.bts.gov/BorderCrossing.aspx as of July 2010.

TABLE 1-4-18 Incoming Truck Crossings to the United States From Mexico and Canada: 1998–2009

Number

	Mexico	Canada	Total
1998	3,946,543	6,270,934	10,217,477
1999	4,358,721	6,817,447	11,176,168
2000	4,525,579	7,048,128	11,573,707
2001	4,304,959	6,776,909	11,081,868
2002	4,426,593	6,915,973	11,342,566
2003	4,238,045	6,728,228	10,966,273
2004	4,503,688	6,903,882	11,407,570
2005	4,675,897	6,783,944	11,459,841
2006	4,759,679	6,649,249	11,408,928
2007	4,882,500	6,559,263	11,441,763
2008	4,866,252	5,894,551	10,760,803
2009	4,291,465	5,020,633	9,312,098

NOTE: Data do not include privately owned pickup trucks.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Border Crossing/Entry Data*, available at http://www.transtats.bts.gov/BorderCrossing.aspx as of July 2010.

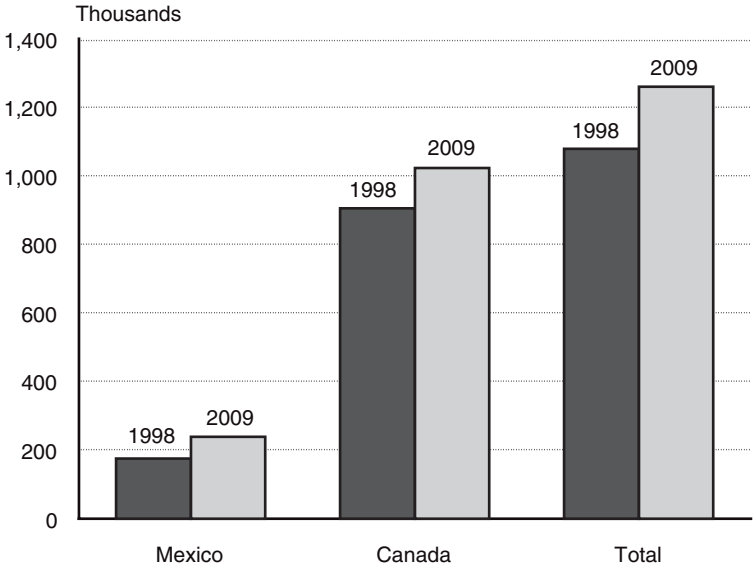
TABLE 1-4-19 Incoming Train Crossings to the United States From Mexico and Canada: 1998–2009

Number

	Mexico	Canada	Total
1998	5,681	35,435	41,116
1999	6,019	32,930	38,949
2000	7,108	33,447	40,555
2001	7,469	33,577	41,046
2002	7,757	32,822	40,579
2003	7,774	34,137	41,911
2004	7,844	33,267	41,111
2005	9,458	32,807	42,265
2006	10,166	32,526	42,692
2007	10,648	30,362	41,010
2008	10,262	29,780	40,042
2009	7,475	24,034	31,509

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Border Crossing/Entry Data*, available at http://www.transtats.bts.gov/BorderCrossing.aspx as of July 2010.

FIGURE 1-4-20 Incoming Full Rail Containers to the United States From Mexico and Canada: 1998 and 2009



SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Border Crossing/Entry Data*, available at http://www.transtats.bts.gov/BorderCrossing.aspx as of July 2010.

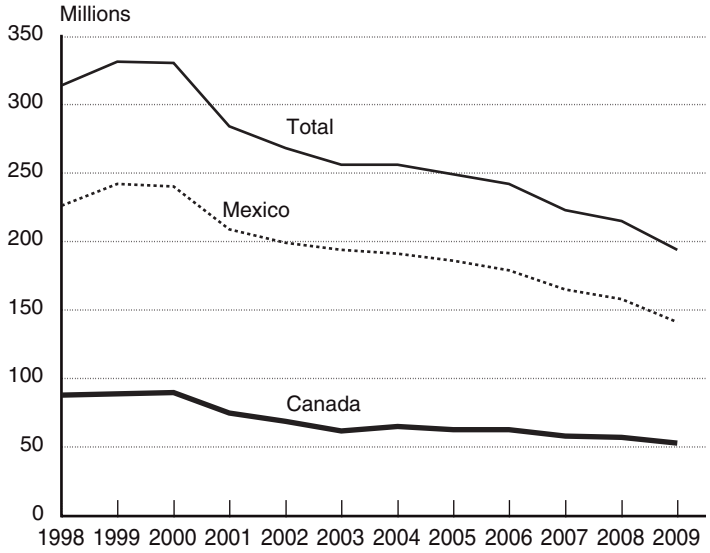
TABLE 1-4-20 Incoming Full Rail Containers to the United States From Mexico and Canada: 1998–2009

	Mexico	Canada	Total
1998	175,490	903,584	1,079,074
1999	226,014	1,150,936	1,376,950
2000	266,235	1,215,439	1,481,674
2001	266,572	1,331,382	1,597,954
2002	269,550	1,386,143	1,655,693
2003	266,469	1,402,388	1,668,857
2004	305,748	1,484,634	1,790,382
2005	335,611	1,458,016	1,793,627
2006	383,253	1,408,391	1,791,644
2007	365,436	1,382,886	1,748,322
2008	332,578	1,312,914	1,645,492
2009	238,669	1,022,932	1,261,601

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

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Border Crossing/Entry Data*, available at http://www.transtats.bts.gov/BorderCrossing.aspx as of July 2010.

FIGURE 1-4-21 Passenger Crossings Into the United States by Personal Vehicles From Mexico and Canada: 1998–2009



SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Border Crossing/Entry Data*, available at http://www.transtats.bts.gov/BorderCrossing.aspx as of July 2010.

TABLE 1-4-21 Passenger Crossings Into the United States by Personal Vehicles From Mexico and Canada: 1998–2009

Thousands

	Mexico	Canada	Total
1998	226,013	88,283	314,296
1999	241,522	89,369	330,892
2000	239,795	90,047	329,842
2001	209,106	74,971	284,077
2002	199,021	68,987	268,007
2003	193,697	62,137	255,834
2004	190,937	63,270	254,206
2005	186,067	62,501	248,569
2006	179,255	62,986	242,241
2007	164,534	58,248	222,782
2008	157,982	57,401	215,383
2009	141,016	53,508	194,526

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

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Border Crossing/Entry Data*, available at http://www.transtats.bts.gov/BorderCrossing.aspx as of July 2010.

TABLE 1-4-22 Passenger Crossings Into the United States by Bus From Mexico and Canada: 1998–2008

Thousands

	Mexico	Canada	Total
1998	3,639	3,970	7,608
1999	3,358	4,367	7,726
2000	3,466	4,873	8,339
2001	3,367	4,456	7,823
2002	3,926	4,213	8,139
2003	3,747	3,780	7,527
2004	3,389	3,890	7,279
2005	3,170	3,855	7,025
2006	3,187	3,499	6,686
2007	3,389	3,685	7,074
2008	3,456	3,428	6,884

NOTE: *Passengers in buses* include both driver(s) and passengers.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Border Crossing/Entry Data*, available at http://www.bts.gov/itt/ as of September 2009 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, tables 1-44 and 1-45, available at http://www.bts.gov/publications/national_transportation_statistics/ as of April 2010.

TABLE 1-4-23 Passenger Crossings Into the United States by Train From Mexico and Canada: 1998–2008

Thousands

	Mexico	Canada	Total
1998	13	246	259
1999	16	249	265
2000	18	270	288
2001	19	254	273
2002	15	255	270
2003	12	235	247
2004	13	223	236
2005	18	236	254
2006	22	245	266
2007	20	233	254
2008	22	239	261

NOTE: *Passengers in trains* includes both passengers and crew.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Border Crossing/Entry Data*, available at http://www.bts.gov/itt/ as of September 2009 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, tables 1-44 and 1-45, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-4-24 Pedestrian Crossings Into the United States From Mexico and Canada: 1998–2008

Thousands

	Mexico	Canada	Total
1998	44,462	598	45,060
1999	48,213	588	48,801
2000	47,090	585	47,675
2001	51,501	750	52,251
2002	50,278	1,082	51,360
2003	48,664	937	49,601
2004	48,084	826	48,910
2005	45,830	605	46,435
2006	46,251	534	46,785
2007	49,539	441	49,980
2008	44,842	500	45,341

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

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *Border Crossing/Entry Data*, available at http://www.bts.gov/itt/ as of September 2009 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, tables 1-44 and 1-45, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

Environmental Sustainability

TABLE 1-5-1 Greenhouse Gas Emissions by Mode: 1998–2008

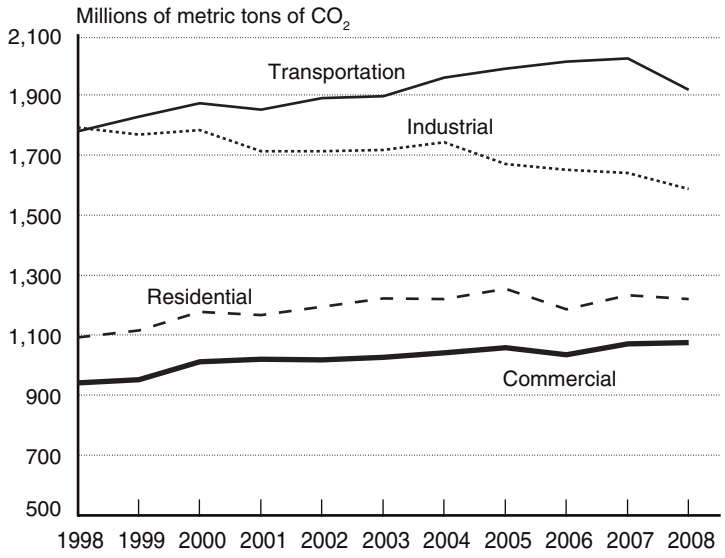
Millions of metric tons of CO_2, domestic activites only

	Passenger cars	Light-duty trucks	All other trucks	Buses	Aircraft	Ships and boats	Rail	Other	Total, all modes
1999	647.2	466.8	331.4	11.3	196.1	29.3	45.5	49.6	1,777.19
2000	644.1	466.9	345.8	11.1	202.3	60.2	45.6	49.1	1,825.03
2001	649.8	472.1	344.3	10.1	190.6	42.0	45.9	47.2	1,802.06
2002	663.6	484.4	358.1	9.8	179.2	46.8	45.4	49.2	1,836.36
2003	643.1	520.1	354.4	10.6	181.3	36.8	47.1	44.4	1,837.75
2004	641.4	542.5	365.6	14.8	184.5	39.5	49.7	43.1	1,881.15
2005	662.0	505.6	396.0	11.8	195.9	44.5	50.3	44.1	1,910.23
2006	638.8	519.2	406.0	12.0	171.1	47.7	52.4	44.1	1,891.11
2007	632.4	528.0	412.5	12.1	171.5	54.4	51.6	46.6	1,909.01
2008	597.5	513.7	388.6	11.7	155.5	38.1	47.9	46.5	1,799.42

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

SOURCE: U.S. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks* (Washington, DC: Annual Issues), table 2-15, available at http://epa.gov/climatechange/emissions/usinventoryreport.html as of April 2010.

FIGURE 1-5-2 U.S. Energy-Related Greenhouse Gas Emissions by End-Use Sector: 1998–2008



SOURCE: U.S. Department of Energy, Energy Information Administration, U.S. Carbon Dioxide Emissions from *Energy Sources 2008 Flash Estimate* (Washington, DC: May 2009), available at http://www.eia.doe.gov/oiaf/1605/flash/flash.html as of November 2009.

TABLE 1-5-2 U.S. Energy-Related Greenhouse Gas Emissions by End-Use Sector: 1998–2008

Millions of metric tons of CO_2

	Residential	Commercial	Industrial	Transportation
1998	1,093	940	1,791	1,779
1999	1,116	952	1,769	1,828
2000	1,177	1,012	1,783	1,873
2001	1,166	1,019	1,714	1,851
2002	1,195	1,017	1,714	1,891
2003	1,223	1,026	1,718	1,897
2004	1,220	1,042	1,743	1,959
2005	1,254	1,059	1,671	1,988
2006	1,186	1,035	1,652	2,012
2007	1,234	1,070	1,641	2,022
2008	1,221	1,076	1,588	1,917

SOURCE: U.S. Department of Energy, Energy Information Administration, *U.S. Carbon Dioxide Emissions from Energy Sources 2008 Flash Estimate* (Washington, DC: May 2009), available at http://www.eia.doe.gov/oiaf/1605/flash/flash.html as of November 2009.

TABLE 1-5-3 Transportation Air Pollutant Emissions From On-Road Mobile Sources: 1998–2008
Millions of short tons

	Carbon monoxide			Nitrogen oxides		
	All sources	Transportation, total	Transportation (percent of total)	All sources	Transportation, total	Transportation (percent of total)
1998	115.38	73.24	63	24.35	8.62	35
1999	114.54	68.71	60	22.84	8.37	37
2000	114.47	68.06	59	22.60	8.39	37
2001	106.26	63.48	60	21.55	7.77	36
2002	111.06	60.60	55	21.14	7.87	37
2003	105.08	56.58	54	20.46	7.41	36
2004	99.04	52.56	53	19.79	6.95	35
2005	93.03	48.54	52	19.12	6.49	34
2006	87.92	45.32	52	18.11	6.06	33
2007	82.80	42.09	51	17.32	5.64	33
2008	77.69	38.87	50	16.34	5.21	32

	Volatile organic compounds			Sulfur dioxide		
	All sources	Transportation, total	Transportation (percent of total)	All sources	Transportation, total	Transportation (percent of total)
1998	18.78	5.86	31	18.94	0.30	2
1999	18.27	5.68	31	17.54	0.30	2
2000	17.51	5.33	30	16.35	0.26	2
2001	17.11	4.95	29	15.93	0.25	2
2002	21.16	4.92	23	14.77	0.25	2
2003	20.48	4.65	23	14.80	0.21	1
2004	19.79	4.38	22	14.82	0.18	1
2005	18.42	4.11	22	14.84	0.15	1
2006	17.59	3.88	22	13.66	0.12	1
2007	16.76	3.65	22	13.01	0.09	1
2008	15.93	3.42	21	11.43	0.06	1

NOTE: *Transportation, total data* include emissions by highway vehicles only.

SOURCE: U.S. Environmental Protection Agency, Clearinghouse for Inventories and Emissions Factors (CHIEF), *Current Emission Trends Summaries*, available at http://www.epa.gov/ttn/chief/trends/index.html as of November 2009 as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, tables 4-40, 4-41, 4-42, and 4-45, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-5-4 Miles of Highway Sound Walls Constructed: 1998–2007
Miles

	Type I barriers	Type II barriers	All other types	Total
1998	116	23	1	140
1999	31	18	5	54
2000	67	11	4	82
2001	96	18	19	133
2002	63	13	2	78
2003	81	4	7	92
2004	89	14	4	107
2005	55	10	21	86
2006	77	13	23	113
2007	52	17	27	96

NOTES: California did not provide data for the years 1999-2004, and therefore these years may not be comparable with other years. A *Type I barrier* is built on a new highway project or a physically altered existing highway. A *Type II barrier* is built to abate noise along an existing highway (often referred to as retrofit abatement) and is not mandatory. *All other types of barriers* are nonfederally funded.

SOURCE: U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning, *Highway Traffic Noise Barrier Construction Trends* (Washington, DC: August 2009), tables 1 and 3 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 4-52, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-5-5 Population Affected by High Decibel Noise at Airports: 1998–2007
Within 65 dB DNL noise-level contours

	Exposure		
	People affected (thousands)	Percent of U.S. resident population	U.S. resident population (millions)
1998	1,100	0.40	276
1999	680	0.24	279
2000	874	0.31	282
2001	867	0.30	285
2002	570	0.20	288
2003	505	0.17	290
2004	491	0.17	293
2005	498	0.17	296
2006	481	0.16	299
2007	468	0.16	302

KEY: dB = decible, DNL = Day-Night Level–the average noise level over a 24-hour period.

NOTES: Noise-level contours are graphical representations of noise levels on a map, similar to elevation contours on a topographic map. Noise-level contours are lines that join points of equal sound levels. Areas between given noise-level contour lines would have a noise level between the two contour values. The U.S. Department of Transportation, Federal Aviation Administration has identified DNL 65 dB as the highest threshold of airport noise exposure that is normally compatible with indoor and outdoor activity associated with a variety of land uses, including residential, recreational, schools, and hospitals. Estimates are for areas surrounding airport property of 250 of the largest civil airports with jet operations in the United States. They exclude exposure to aircraft noise within an airport boundary.

Noise exposure people data for 2000 and forward was re-estimated using an enhanced version of U.S. MAGENTA (Model for Assessing the Global Exposure of Noise because of Transport Airplanes). The enhanced version of the model uses radar-based traffic data to account for unscheduled U.S. operations including freight, General Aviation, and military operations. MAGENTA also includes improvements to the acoustical model to account for differences in the sound attenuation characteristics between wing-mounted and tail-mounted aircraft engines. These enhancements result in computed population noise exposure estimates that are more accurate and larger than previous versions of the model. Therefore, it is important to note that the "growth" in the number of people exposed from 1999 to 2000 resulted from improvements in measurement, not deterioration in aviation noise trends.

SOURCES: **Exposure**: Federal Aviation Administration; **Population**: U.S. Department of Commerce, U.S. Census Bureau as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 4-53, available at http://www.bts.gov/publications/national_transportation_statistics as of October 2009.

TABLE 1-5-6 Wetlands Converted for Transportation by Federal-Aid Highway Projects and Acreage Mitigated: 2000–2007

	Acres impacted	Acres mitigated	Acres gained (net)	Mitigation ratio
2000	2,041	7,671	5,630	3.8:1
2001	1,905	4,017	2,112	2.1:1
2002	1,942	5,198	3,256	2.7:1
2003	1,278	3,431	2,153	2.7:1
2004	847	1,763	916	2.1:1
2005	1,139	3,741	2,602	3.3:1
2006	591	1,581	990	2.7:1
2007	699	2,285	1,586	3.3:1

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

SOURCES: **2000–2004**: U.S. Department of Transportation (USDOT), *Federal Highway Administration (FHWA), Federal Highway Administration Wetland Mitigation Performance Measure for Federal-Aid Highway Projects Fiscal Year 2004*; **2005–2007**: USDOT, FHWA, personal communication, as of August 2007 and September 2009.

TABLE 1-5-7 Volume of Oil Spills From Facilities by Sources: 1998–2006
Thousands of gallons

	Airports/ aircrafts	Offshore	Onshore	Pipelines	Railroads/ rails	Tank trucks	Other vehicles	Other facilities	Unknown	Total
1998	1.0	25.0	106.0	204.0	0.0	11.0	1.0	17.0	32.0	397.0
1999	0.0	11.0	426.0	39.0	1.0	13.0	1.0	46.0	47.0	584.0
2000	2.0	11.0	256.0	99.0	0.0	11.0	1.0	14.0	8.0	402.0
2001	0.8	31.3	196.6	8.8	0.5	U	12.5	140.0	64.2	454.7
2002	0.1	63.3	274.2	0.1	0.0	U	6.2	0.0	79.0	422.9
2003	0.2	35.8	128.9	0.2	0.0	U	0.7	0.0	2.7	168.5
2004	0.3	10.3	1,398.9	0.0	0.1	U	1.7	0.0	16.4	1,427.7
2005	0.0	12.0	123.9	0.8	0.0	U	0.8	0.0	112.0	249.5
2006	1.0	13.6	320.8	2.0	0.0	U	4.6	0.0	1.1	343.1

KEY: U = data are unavailable.

NOTES: From 2001, *Other vehicles* include *tank trucks* and passenger cars. The drop in *Total* spills from 2002 to 2005 reflects the implementation of a new database following a massive breakdown of the main Coast Guard Oil spill database (MSIS) in November 2001. The new system (MISLE) only counts the spill if it is investigated.

In 2005, facilities accounted for 44% of all spills, largely the result of an *Unknown* facility spill that occurred on the Kentucky River in January, spilling 110,000 gallons of crude oil.

In June 2006, facilities accounted 42% of all spills in that year, an *Onshore* facility spilled 144,018 gallons of oil (waste/lubricants) into the Corpus Christi Bay.

Details may not add to totals due to rounding.

The highest volume of spills from onshore facilities in 2004 is due to unknown material (oil like) spill in the Philippines Sea.

SOURCE: American Petroleum Institute, *Oil Spills in U.S. Waters*, available at http://www.api.org/ as of December 2009.

TABLE 1-5-8 Average Fuel Efficiency of U.S. Passenger Cars and Light Trucks: 1998–2009
Miles per gallon

	Average U.S. passenger car fuel efficiency (calendar year)		New vehicle fuel efficiency (model year)				CAFE standards (model year)	
	Passenger car	Other 2-axle 4-tire vehicle	Passenger car	Domestic passenger car	Imported passenger car	Light truck (<8,500 lbs GVWR)	Passenger car	Light truck
1998	21.6	17.2	28.8	28.6	29.2	21.0	27.5	20.7
1999	21.4	17.0	28.3	28.0	29.0	20.9	27.5	20.7
2000	21.9	17.4	28.5	28.7	28.3	21.3	27.5	20.7
2001	22.1	17.6	28.8	28.7	29.0	20.9	27.5	20.7
2002	22.0	17.5	29.0	29.1	28.8	21.4	27.5	20.7
2003	22.2	16.2	29.5	29.1	29.9	21.8	27.5	20.7
2004	22.5	16.2	29.5	29.9	28.7	21.5	27.5	20.7
2005	22.1	17.7	30.3	30.5	29.9	22.1	27.5	21.0
2006	22.5	17.8	30.1	30.3	29.7	22.5	27.5	21.6
2007	22.5	18.0	31.2	30.6	32.2	23.1	27.5	22.2
2008	U	U	31.2	31.0	31.5	23.6	27.5	22.5
2009	U	U	32.6	32.6	32.6	24.2	27.5	23.1

KEY: CAFE = Corporate Average Fuel Economy, GVWR = Gross vehicle weight rating, U = Data are unavailable.

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

SOURCES: **Average U.S. passenger car fuel efficiency:** Federal Highway Administration; **New vehicle fuel efficiency (based on model year production) and CAFE standards:** National Highway Traffic Safety Administration as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 4-23, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 1-5-9 Energy Consumption by the Transportation Sector: 1998–2008
Quadrillion Btu

	Energy consumption (all sectors)	Total transportation consumption	Transportation as percent of total energy consumption	Total primary consumption	Natural gas	Petroleum products	Electricity	Electrical system energy losses
1998	95.18	25.26	26.5	25.20	0.67	24.42	0.017	0.04
1999	96.82	25.95	26.8	25.89	0.68	25.10	0.017	0.04
2000	98.98	26.55	26.8	26.49	0.67	25.68	0.018	0.04
2001	96.33	26.28	27.3	26.22	0.66	25.41	0.020	0.04
2002	97.86	26.85	27.4	26.79	0.70	25.91	0.019	0.04
2003	98.21	27.00	27.5	26.93	0.63	26.06	0.023	0.05
2004	100.35	27.90	27.8	27.82	0.60	26.92	0.025	0.05
2005	100.48	28.36	28.2	28.28	0.62	27.31	0.026	0.06
2006	99.88	28.84	28.9	28.76	0.62	27.65	0.025	0.05
2007	101.55	29.13	28.7	29.05	0.67	27.77	0.028	0.06
2008	99.30	27.92	28.1	27.84	0.68	26.33	0.026	0.06

KEY: Btu = British thermal unit.

NOTES: *Total transportation consumption* is the sum of primary consumption, electricity, and electrical system energy losses categories.

Total primary consumption is the sum of natural gas, petroleum products, and biomass categories. Biomass is not reported separately in this table. *Natural gas* is consumed in the operation of pipelines, primarily in compressors, and small amounts consumed as vehicle fuel.

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

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

SOURCE: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 2008*, tables 2.1a and 2.1e, available at http://www.eia.doe.gov as of December 2009 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 4-4, available at http://www.bts.gov/ as of January 2010.

TABLE 1-5-10 Energy Consumption by Mode of Transportation: 1998–2008

Trillion Btu, domestic activities only

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Air											
Jet Fuel											
Certificated carriers	1,800	1,944	2,007	1,872	1,744	1,766	1,902	1,887	1,849	1,847	1,710
General aviation	110	131	131	124	127	126	166	206	222	201	230
Aviation gasoline											
General aviation	37	42	40	34	33	33	33	35	34	33	30
Highway											
Gasoline, diesel and other fuels											
Passenger car and motorcycle	8,988	9,187	9,159	9,219	9,458	9,456	9,451	9,701	9,404	9,327	8,969
Other 2-axle 4-tire vehicle	6,308	6,607	6,617	6,690	6,903	7,595	7,927	7,359	7,586	7,730	7,650
Single-unit 2-axle 6-tire or more truck	946	1,300	1,326	1,341	1,290	1,110	1,120	1,188	1,232	1,255	1,236
Combination truck	3,489	3,403	3,560	3,538	3,673	3,303	3,355	3,840	3,898	3,959	3,719
Bus	144	159	154	142	139	134	189	155	159	159	154
Transit											
Electricity	17	18	19	19	19	19	20	20	20	22	U
Motor fuel											
Diesel	103	106	109	103	100	99	101	101	102	99	U
Gasoline and other nondiesel fuels	7	6	6	6	6	6	7	7	9	18	U
Compressed natural gas	5	6	8	9	11	14	16	17	20	19	U
Rail, Class I (in freight service)											
Distillate / diesel fuel	497	515	513	515	517	531	563	571	585	567	542
Amtrak											
Electricity	1	2	2	2	2	2	2	2	2	2	2
Distillate / diesel fuel	11	11	13	13	12	10	10	9	9	9	9
Water											
Residual fuel oil	841	874	960	810	726	580	702	775	861	947	758
Distillate / diesel fuel oil	360	336	314	284	288	307	297	278	264	267	165
Gasoline	120	137	141	124	135	138	129	158	155	153	142
Pipeline											
Natural gas	655	665	662	644	688	610	584	602	602	641	668

KEY: Btu = British thermal unit, U = Data are unavailable.

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

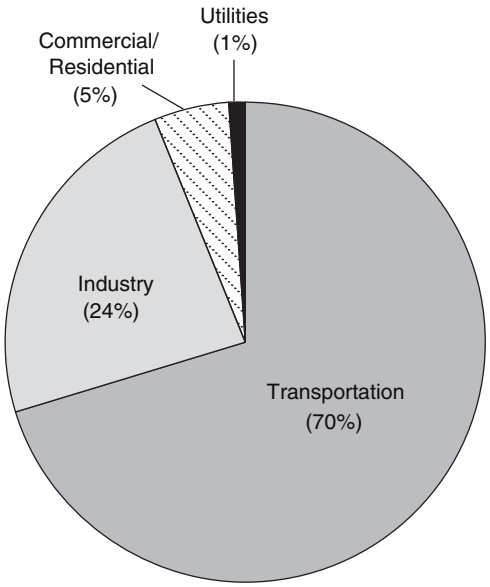
Transit data are preliminary.

The following conversion rates were used:

Jet fuel = 135,000 Btu/gallon
Aviation gasoline = 120,200 Btu/gallon
Compressed natural gas = 138,700 Btu/gallon
Distillate fuel = 138,700 Btu/gallon
Automotive gasoline = 125,000 Btu/gallon
Residual fuel oil = 149,700 Btu/gallon
Diesel motor fuel = 138,700 Btu/gallon
Natural gas = 1,031 Btu/ft^3
Electricity 1kWh = 3,412 Btu, negating electrical system losses. To include approximate electrical system losses, multiply this conversion factor by 3.

SOURCES: **Air**: Federal Aviation Administration; **Highway**: Federal Highway Administration; **Transit**: American Public Transportation Association; **Rail**: Association of American Railroads; **Amtrak**: National Railroad Passenger Corporation (Amtrak), Energy Management Department; **Water**: U.S. Department of Energy, Energy Information Administration and U.S. Department of Transportation, Federal Highway Administration; **Pipeline**: U. S. Department of Energy as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 4-6, available at http://www.bts.gov/publications/national_transportation_statistics/ as of April 2010.

FIGURE 1-5-11 Percentage of Total U.S. Petroleum Use by Sector: 2008



SOURCE: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review*, tables 5.13a - 5.13d, available at http://www.eia.doe.gov/emeu/aer/contents.html as of October 2009.

TABLE 1-5-11 U.S. Petroleum Use by Sector: 1998–2008

Millions of barrels per day

	Transportation	Industry	Commercial/ residential	Utilities	Total	Transportation as a percentage of total
1998	12.4	4.8	1.1	0.6	18.9	65.7
1999	12.8	5.0	1.2	0.5	19.5	65.4
2000	13.0	4.9	1.3	0.5	19.7	66.1
2001	12.9	4.9	1.3	0.6	19.6	65.8
2002	13.2	4.9	1.2	0.4	19.8	66.8
2003	13.3	4.9	1.3	0.5	20.0	66.5
2004	13.7	5.2	1.3	0.5	20.7	66.2
2005	14.0	5.1	1.2	0.5	20.8	67.1
2006	14.2	5.2	1.0	0.3	20.7	68.5
2007	14.3	5.1	1.0	0.3	20.7	69.1
2008	13.7	4.6	1.0	0.2	19.4	70.3

NOTES: 2008 data are preliminary. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review*, tables 5.13a - 5.13d, available at http://www.eia.doe.gov/emeu/aer/contents.html as of October 2009.

TABLE 1-5-12 Energy Intensity by Passenger Mode: 1998–2008

Btu per passenger-mile

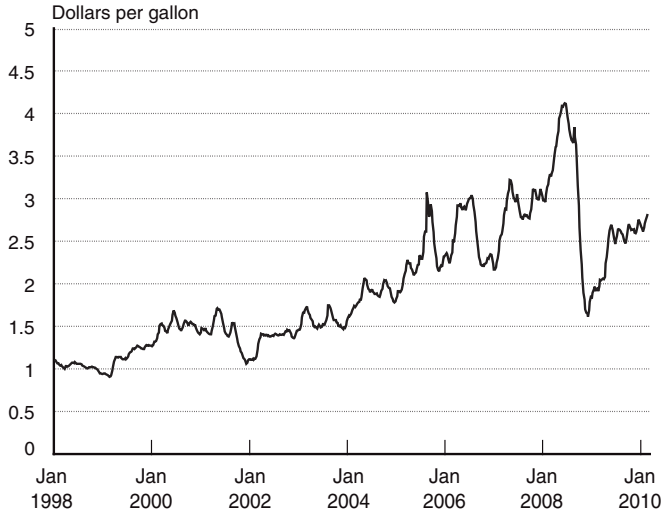
	Passenger cars	Light-duty trucks	Transit buses	Aircraft (domestic)	Amtrak
1998	3,637	4,569	3,646	4,123	2,255
1999	3,672	4,612	3,546	4,049	2,344
2000	3,589	4,509	3,618	3,883	2,688
2001	3,597	3,985	3,492	3,848	2,690
2002	3,600	4,121	3,308	3,609	2,537
2003	3,570	4,452	3,201	3,496	2,145
2004	3,509	4,452	3,240	3,410	2,068
2005	3,585	4,077	2,685	3,232	2,025
2006	3,510	4,042	2,882	3,142	1,948
2007	3,518	4,008	2,771	3,040	1,824
2008	3,501	3,980	2,656	2,931	1,745

KEY: Btu = British thermal unit.

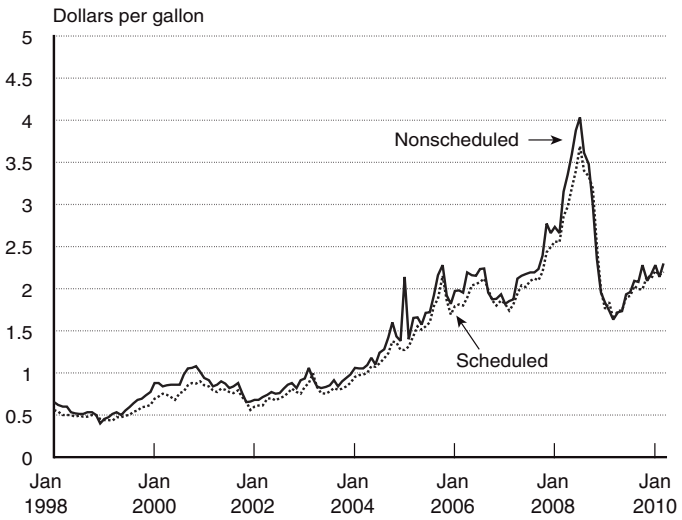
SOURCES: **Aircraft**: Research and Innovative Technology Administration, Bureau of Transportation Statistics; **Passenger cars and Light-duty trucks**: Federal Highway Administration; **Transit buses**: Federal Transit Administration, National Transit Database; **Amtrak**: National Railroad Passenger Corporation (Amtrak) as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 4-20, available at http://www.bts.gov/publications/national_transportation_statistics/ as of April 2010.

FIGURE 1-5-13 Fuel Prices

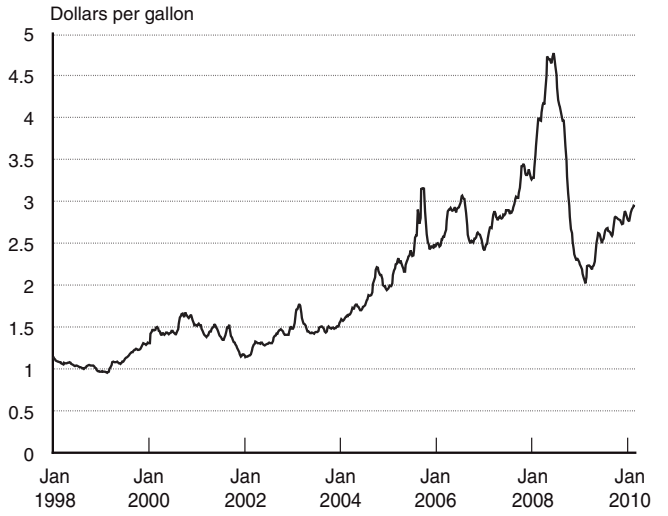
Retail Regular Gasoline Prices (weekly data, not seasonally adjusted)
January 1998–June 2010



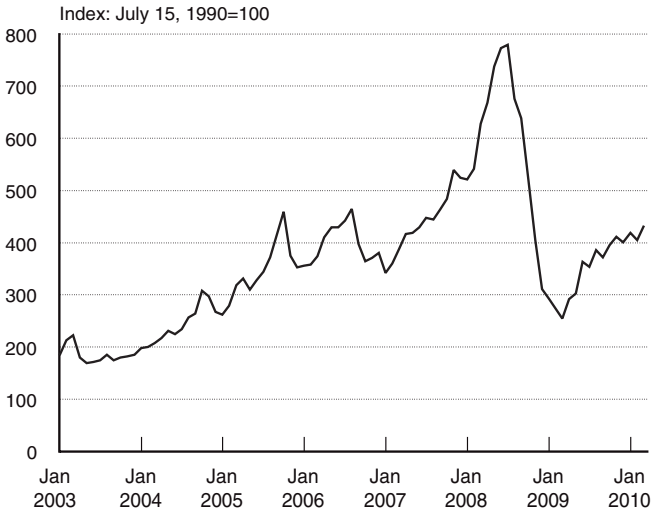
Jet Fuel Prices (monthly data, not seasonally adjusted)
January 1998–June 2010



Retail On-Highway Diesel Prices (weekly data, not seasonally adjusted)
January 1998–June 2010



Railroad Fuel Prices (monthly data, not seasonally adjusted)
January 1998–June 2010



NOTES: Data for railroad fuel prices begin in January 2003, fuel price data for other fuels begin in January 1998.

Changes in motor fuel prices impact the behavior of both producers and consumers, and affect the demand for transportation in terms of level and modal mix. In the United States, motor gasoline prices follow world crude oil prices more closely than motor diesel prices. Changes in motor fuel prices affect the profit margin of transportation firms, particularly trucking firms.

Jet fuel prices reported to the Bureau of Transportation Statistics differ from producer prices. Reports to BTS show the cost per gallon of fuel used by an airline during the month rather than the price charged by a producer on a single day. Fuel costs for scheduled airline services reflect contractual and storage advantages available to large buyers, while fuel costs for nonscheduled airline services reflect economic conditions for smaller buyers. Jet fuel prices also reflect seasonality due to both the seasonality of aviation and because jet fuel has similar refining requirements to heating oil.

The railroad fuel price, which include federal excise taxes, transportation, and handling expenses, represent the average monthly price for fuels purchased by freight railroads during each month.

SOURCES: **Retail gasoline and on-highway diesel prices**: U.S. Department of Energy, Energy Information Administration, *Weekly Retail Gasoline and Diesel Prices*, available at http://tonto.eia.doe.gov/dnav/pet/pet_pri_gnd_a_epmr_pte_cpgal_w.htm as of June 2010; **Jet fuel prices**: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *Fuel Cost and Consumption*, available at http://www.bts.gov/oai as of June 2010; **Railroad fuel prices**: Association of American Railroads, *Index of Monthly Railroad Fuel Prices* (Washington, DC: Monthly Issues), available at http://www.aar.org/IndustryInformation/IndustryStatistics/RailCostIndexes.aspx as of June 2010.

TABLE 1-5-14 Sales Price of Transportation Fuel to End-Users: 1998–2008
Dollars/gallon (in current dollars), annual average

	Aviation fuel (excluding taxes)		Highway fuel (including taxes)				Railroad fuel
	Aviation gasoline	Jet fuel kerosene	Gasoline, premium	Gasoline, regular	Gasoline, all types	Diesel No. 2 (excluding taxes)	Diesel
1998	0.98	0.45	1.25	1.06	1.12	0.49	0.57
1999	1.06	0.54	1.36	1.17	1.22	0.58	0.55
2000	1.31	0.90	1.69	1.51	1.56	0.94	0.87
2001	1.32	0.78	1.66	1.46	1.53	0.84	0.86
2002	1.29	0.72	1.56	1.36	1.44	0.76	0.73
2003	1.49	0.87	1.78	1.59	1.64	0.94	0.89
2004	1.82	1.21	2.07	1.88	1.92	1.24	1.07
2005	2.23	1.74	2.49	2.30	2.34	1.79	1.51
2006	2.68	2.00	2.81	2.59	2.64	2.10	1.92
2007	2.85	2.17	3.03	2.80	2.85	2.27	2.18
2008	3.27	3.05	3.52	3.27	3.32	3.15	3.12

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

SOURCES: **Aviation fuel and Highway fuel**: U.S. Department of Energy, Energy Information Administration; **Railroad fuel**: Association of American Railroads as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 3-8, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

Table 1-5-15 Domestic and International U.S. Airline Fuel Cost and Consumption: 2000–2009

	Cost per gallon (dollars)	Gallons consumed (millions)
2000	0.80	19,026.2
2001	0.78	18,067.6
2002	0.71	16,858.7
2003	0.84	16,868.0
2004	1.15	18,144.7
2005	1.65	18,324.5
2006	1.95	18,239.7
2007	2.09	18,426.8
2008	3.06	17,960.2
2009	1.89	16,205.2

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *Form 41 Financial Database*, special tabulation, January 2010.

Commodity Flow Survey

Commodity Flow Survey

The Commodity Flow Survey (CFS) is one of the flagship programs of the Bureau of Transportation Statistics (BTS). The U.S. Census Bureau in partnership with BTS conducts the CFS as a component of the Economic Census on a 5-year cycle, with surveys conducted in 1993, 1997, 2002, and most recently in 2007. This survey is the primary source of national- and state-level data on domestic freight shipments by American establishments in mining, manufacturing, wholesale, auxiliaries, and selected retail industries. The CFS provides data on the types, origins and destinations, values, weights, modes of transport, distance shipped, and ton-miles of commodities shipped. The CFS is a shipper-based survey and represents the only publicly available source of commodity flow data for the highway mode. In addition, the CFS also provides one of the most comprehensive data series on the shipment of hazardous materials and exports.

2007 Commodity Flow Survey

According to final estimates, American businesses in industries covered by the CFS made shipments valued at $11.7 trillion, totaling 12.5 billion tons and logging 3.3 trillion ton-miles on the U.S. transportation system (Table 1-6-1 – *Shipment Characteristics by Mode of Transportation for the United States*, available at http://www.bts.gov/publications/commodity_flow_survey/). Trucking continues to dominate as the modal choice for freight shipments, accounting for 71 percent of the value and 70 percent of the tons of all commodity shipments. For the first time in the CFS series, data were also displayed by industry sector. The manufacturing sector contributed 45 percent of the value ($5.2 trillion) and 38 percent of the weight (4.8 billion tons) of all transported goods (Table 1-6-2 - *Shipment Characteristics by Industry for the United States*, available at http://www.bts.gov/publications/commodity_flow_survey/).

Processing of the 2007 CFS data continued through 2009, and final data products were released in December 2009. All 2007 CFS data products, as well as those from previous surveys, are available at http://www.bts.gov/publications/commodity_flow_survey/. For the first time, data products from the 2002 and 2007 surveys will also reside on the U.S. Census Bureau's American FactFinder, which is available at http://factfinder.census.gov. In addition to a comprehensive set of data tables, users can also generate and produce quick reports and thematic maps using 2007 CFS data.

Hazardous Materials

The release of the 2007 Commodity Flow Survey (CFS) included a separate report on hazardous materials (Hazmat) that represents the only source of national hazardous materials transportation flow data for the highway mode. The CFS questionnaire asked Hazmat shippers to enter the appropriate four-digit Hazmat identification (ID) number on each shipment. This CFS data subset of hazardous materials shipments was then compared to the five-digit Standard Classification of Transported Goods (SCTG) codes that identified both hazardous and possibly hazardous materi-

als. This approach to collecting and processing CFS shipments of hazardous materials created a robust and high-quality set of CFS Hazmat data.

In addition, in anticipation of increased volume of Hazmat shipped, as well as growing safety and security concerns, the CFS strengthened the sampling of Hazmat shippers. The 2007 CFS over sampled shippers that often, or always, shipped hazardous materials. Shippers of specialized materials such as ethanol, hydrogen, explosives, and toxic-by-inhalation materials were over sampled as well. These efforts resulted in a sampling of 5.6 percent of the 4.9 million Hazmat shipments logged by the 2007 CFS in contrast to a 4.9 percent sampling of the 2.6 million shipments recorded in the 2002 CFS.

All modes of transportation sampled by the 2007 CFS included shipments of Hazmat, with truck the predominant mode of Hazmat transportation. Trucking moved 57.8 percent of the value and 53.9 percent of the tonnage while recording 32.2 percent of the ton-miles of Hazmat shipments (Table 1-6-3A - *Hazardous Material Shipment Characteristics by Mode of Transportation: 2007*). A comparison of Hazmat data between the 2007 CFS and 2002 CFS showed no significant changes in tonnage (up 1.8 percent) or ton-miles (down 1 percent), as seen in Table 1-6-3B - *Hazardous Material Shipment Characteristics by Mode of Transportation: 2007 and 2002*. However, these data show a 119.4 percent increase in value, which may be due to the increase in the cost of refined petroleum products.

TABLE 1-6-1 U.S. Shipment Characteristics by Mode of Transportation: 2007

Mode of transportation	2007 value (million $)	2007 tons (thousands)	2007 ton–miles[a] (millions)	2007 average miles per shipment
All modes	11,684,872	12,543,425	3,344,658	619
Single modes	9,539,037	11,698,128	2,894,251	234
Truck[b]	8,335,789	8,778,713	1,342,104	206
For-hire truck	4,955,700	4,075,136	1,055,646	599
Private truck	3,380,090	4,703,576	286,457	57
Rail	436,420	1,861,307	1,344,040	728
Water	114,905	403,639	157,314	520
Shallow draft	91,004	343,307	117,473	144
Great Lakes	S	17,792	6,887	657
Deep draft	23,058	42,540	32,954	923
Air (included truck and air)	252,276	3,611	4,510	1,304
Pipeline[c]	399,646	650,859	S	S
Multiple modes	1,866,723	573,729	416,642	975
Parcel, USPS, or courier	1,561,874	33,900	27,961	975
Truck and rail	187,248	225,589	196,772	1,007
Truck and water	58,389	145,521	98,396	1,429
Rail and water	13,892	54,878	47,111	1,928
Other multiple modes	45,320	113,841	46,402	1,182
Other and unknown modes	279,113	271,567	33,764	116

KEY: S = estimate does not meet publication standards because of high sampling variability or poor response quality.
[a] *Ton-miles* estimates are based on estimated distances traveled along a modeled transportation network.
[b] *Truck* as a single mode includes any shipment made by private truck only, by for-hire truck only, or by a combination of private and for-hire truck.
[c] *Pipeline* estimates exclude shipments of crude petroleum.

NOTES: Value-of-shipment estimates are reported in current prices. Estimates are based on final data from the 2007 Commodity Flow Survey. Details may not add to totals due to rounding. More information on sampling error, confidentiality protection, nonsampling error, sample design, and definitions may be found at http://www.bts.gov/cfs.

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

TABLE 1-6-2 U.S. Shipment Characteristics by Industry: 2007

NAICS code[a]	NAICS description	2007 value (million $)	2007 tons (thousands)	2007 ton-miles[b] (millions)	2007 average miles per shipment
	All industries	**11,684,872**	**12,543,425**	**3,344,658**	**619**
212	Mining (except oil and gas)	85,730	3,638,118	1,057,505	53
31-33	**Manufacturing**	5,234,281	4,794,660	1,383,058	721
311	Food manufacturing	585,676	568,950	264,425	305
312	Beverage and tobacco product manufacturing	129,804	143,530	42,063	227
313	Textile mills	35,936	8,989	4,133	811
314	Textile product mills	28,448	7,022	3,131	854
315	Apparel manufacturing	24,381	1,463	1,400	1,224
316	Leather and allied product manufacturing	5,441	636	789	1,118
321	Wood product manufacturing	100,923	218,834	78,742	343
322	Paper manufacturing	174,780	166,472	89,418	494
323	Printing and related support activities	98,848	33,661	15,936	791
324	Petroleum and coal products manufacturing	608,090	1,415,099	207,148	222
325	Chemical manufacturing	713,674	594,262	279,917	847
326	Plastics and rubber products manufacturing	209,268	66,753	37,394	679
327	Nonmetallic mineral product manufacturing	124,713	1,060,926	98,086	170
331	Primary metal manufacturing	251,412	201,339	98,318	545
332	Fabricated metal product manufacturing	338,290	118,350	44,620	596
333	Machinery manufacturing	343,262	40,523	31,565	917
334	Computer and electronic product manufacturing	389,399	5,416	4,442	1,205
335	Electrical equipment, appliance, and component manufacturing	128,868	18,771	15,436	938
336	Transportation equipment manufacturing	715,294	94,023	45,264	801
337	Furniture and related product manufacturing	83,494	18,700	11,480	715
339	Miscellaneous manufacturing	144,279	10,941	9,350	1,017
42	**Wholesale trade**	4,740,065	3,605,531	767,100	430
423	Merchant wholesalers, durable goods	2,352,345	1,361,146	264,780	501
4231	Motor vehicle and parts merchant wholesalers	503,333	81,203	29,489	532
4232	Furniture and home furnishing merchant wholesalers	74,305	23,358	12,730	663
4233	Lumber and other construction materials merchant wholesalers	153,528	498,825	43,488	141
4234	Commercial equip. merchant wholesalers	397,976	21,817	9,088	716
4235	Metal and mineral (except petroleum) merchant wholesalers	191,673	182,041	43,016	192
4236	Electrical and electronic goods merchant wholesalers	338,597	24,469	11,663	474

Continued on next page

TABLE 1-6-2 U.S. Shipment Characteristics by Industry: 2007 *(continued)*

NAICS code[a]	NAICS description	2007 value (million $)	2007 tons (thousands)	2007 ton-miles[b] (millions)	2007 average miles per shipment
4237	Hardware and plumbing merchant wholesalers	119,464	28,474	5,563	213
4238	Machinery, equipment, and supplies merchant wholesalers	363,108	74,069	16,716	322
4239	Miscellaneous durable goods merchant wholesalers	210,361	426,888	93,027	911
424	Merchant wholesalers, nondurable goods	2,387,720	2,244,386	502,320	311
4241	Paper and paper product merchant wholesalers	100,860	50,888	15,513	282
4242	Drugs and druggists' sundries merchant wholesalers	409,264	23,407	9,611	478
4243	Apparel, piece goods, and notions merchant wholesalers	119,239	9,468	8,484	933
4244	Grocery and related product merchant wholesalers	567,732	321,626	81,594	109
4245	Farm product raw material merchant wholesalers	143,358	623,826	240,207	145
4246	Chemical and allied products merchant wholesalers	119,923	119,971	31,344	237
4247	Petroleum and petroleum products merchant wholesalers	610,759	846,636	52,112	70
4248	Beer, wine, and distilled alcoholic beverage merchant wholesalers	100,154	55,667	3,194	40
4249	Miscellaneous nondurable goods merchant wholesalers	216,429	192,897	60,260	481
4541	**Electronic shopping and mail-order houses**	216,817	7,305	6,398	1,169
45431	Fuel dealers	38,220	48,438	1,784	22
4931	Warehousing and storage	903,398	187,219	46,335	833
5111	Newspaper, periodical, book, and directory publishers	38,082	11,892	2,279	250
551114	Corporate, subsidiary, and regional managing offices	428,280	250,262	80,199	784

[a] Based on 2002 North American Industry Classification System (NAICS). For example, estimates for values and tons summed from NAICS codes 4231 through 4239 equal the estimates of values and tons for NAICS code 423.
[b] Ton-miles estimates are based on estimated distances traveled along a modeled transportation network.

NOTES: Value-of-shipment estimates are reported in current prices. Estimates are based on final data from the 2007 Commodity Flow Survey. Details may not add to totals due to rounding. More information on sampling error, confidentiality protection, nonsampling error, sample design, and definitions may be found at http://www.bts.gov/cfs.

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

TABLE 1-6-3A Hazardous Material Shipment Characteristics by Mode of Transportation: 2007

Mode of transportation	Value		Tons		Ton-miles[a]		Average miles per shipment
	2007 (million $)	Percent	2007 (thousands)	Percent	2007 (millions)	Percent	
All modes	1,448,218	100.0	2,231,133	100.0	323,457	100.0	96
Single modes	1,370,615	94.6	2,111,622	94.6	279,105	86.3	65
Truck[b]	837,074	57.8	1,202,825	53.9	103,997	32.2	59
For-hire truck	358,792	24.8	495,077	22.2	63,288	19.6	214
Private truck	478,282	33.0	707,748	31.7	40,709	12.6	32
Rail	69,213	4.8	129,743	5.8	92,169	28.5	578
Water	69,186	4.8	149,794	6.7	37,064	11.5	383
Shallow draft	57,022	3.9	124,396	5.6	22,411	6.9	S
Great Lakes	S	S	S	S	S	S	S
Deep draft	11,626	0.8	24,181	1.1	13,767	4.3	861
Air (includes truck and air)	1,735	0.1	S	S	S	S	1,095
Pipeline[c]	393,408	27.2	628,905	28.2	S	S	S
Multiple modes	71,069	4.9	111,022	5.0	42,886	13.3	834
Parcel, USPS, or courier	7,675	0.5	236	Z	151	Z	836
Truck and rail	7,052	0.5	11,706	0.5	10,120	3.1	779
Truck and water	23,451	1.6	36,588	1.6	12,380	3.8	1,010
Rail and water	5,153	0.4	5,742	0.3	2,937	0.9	1,506
Other multiple modes	27,739	1.9	56,750	2.5	17,297	5.3	233
Other and unknown modes	6,534	0.5	8,489	0.4	1,466	0.5	58

KEY: S = estimate does not meet publication standards because of high sampling variability or poor response quality.
Z = less than half the unit shown. Represents an estimate that is between zero and half the unit shown, thus, has rounded down to zero.

[a] *Ton-miles* estimates are based on estimated distances traveled along a modeled transportation network.
[b] *Truck* as a single mode includes shipments that were made by only private truck, only for-hire truck, or a combination of private and for-hire truck.
[c] *Pipeline* estimates exclude shipments of crude petroleum.

NOTES: Value-of-shipment estimates are reported in current prices. Estimates are based on data from the 2007 Commodity Flow Survey. Details may not add to totals due to rounding. More information on sampling error, confidentiality protection, nonsampling error, sample design, and definitions may be found at http://www.bts.gov/cfs.

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

TABLE 1-6-3B Hazardous Material Shipment Characteristics by Mode of Transportation: 2007 and 2002

Mode of transportation	Value			Tons			Ton-miles[a]			Average miles per shipment		
	2007 (million $)	2002 (million $)	Percent change	2007 (thousands)	2002 (thousands)	Percent change	2007 (millions)	2002 (millions)	Percent change	2007	2002	Percent change
All modes	1,448,218	660,181	119.4	2,231,133	2,191,519	1.8	323,457	326,727	-1.0	96	136	-29.7
Single modes	1,370,615	644,489	112.7	2,111,622	2,158,533	-2.2	279,105	311,897	-10.5	65	105	-38.1
Truck[b]	837,074	419,630	99.5	1,202,825	1,159,514	3.7	103,997	110,163	-5.6	59	86	-31.6
For-hire truck	358,792	189,803	89.0	495,077	449,503	10.1	63,288	65,112	-2.8	214	285	-24.9
Private truck	478,282	226,660	111.0	707,748	702,186	0.8	40,709	44,087	-7.7	32	38	-14.8
Rail	69,213	31,339	120.9	129,743	109,369	18.6	92,169	72,087	27.9	578	695	-16.8
Water	69,186	46,856	47.7	149,794	228,197	-34.4	37,064	70,649	-47.5	383	S	NA
Air (includes truck and air)	1,735	1,643	5.6	S	64	S	S	85	S	1,095	2,080	-47.3
Pipeline[c]	393,408	145,021	171.3	628,905	661,390	-4.9	S	S	S	S	S	S
Multiple modes	71,069	9,631	637.9	111,022	18,745	492.3	42,886	12,488	243.4	834	849	-1.8
Parcel, USPS, or courier	7,675	4,268	79.8	236	245	-3.6	151	119	27.1	836	837	-0.2
Other and unknown modes	6,534	6,061	7.8	8,489	14,241	-40.4	1,466	2,342	-37.4	58	57	1.2

KEY: S = estimate does not meet publication standards because of high sampling variability or poor response quality. NA = not applicable or comparison data unavailable in the 2007 Commodity Flow Survey.

[a] *Ton-miles* estimates are based on estimated distances traveled along a modeled transportation network.
[b] *Truck* as a single mode includes shipments that were made by only private truck, only for-hire truck, or a combination of private and for-hire truck.
[c] *Pipeline* estimates exclude shipments of crude petroleum.

NOTES: Value-of-shipment estimates are reported in current prices. Estimates are based on final data from the 2007 and 2002 Commodity Flow Surveys. Details may not add to totals due to rounding. More information on sampling error, confidentiality protection, nonsampling error, sample design, and definitions may be found at http://www.bts.gov/cfs.

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

Chapter

2

Modal Indicators

Intermodal/Multimodal

TABLE 2-1-1 Transportation System Mileage Within the United States: 1998–2008
Miles

		Rail		Transit rail				Pipeline	
	Highway	Class I	Amtrak	Commuter rail	Heavy rail	Light rail	Navigable waterways	Hazardous liquid	Gas
1998	3,906,290	100,570	22,000	5,172	1,527	676	26,000	178,648	1,372,644
1999	3,917,243	99,430	23,000	5,191	1,540	802	26,000	177,463	1,364,336
2000	3,936,222	99,250	23,000	5,209	1,558	834	26,000	176,996	1,377,320
2001	3,948,335	97,817	23,000	5,209	1,572	897	26,000	158,248	1,413,555
2002	3,966,485	100,125	23,000	6,831	1,572	960	26,000	160,990	1,462,579
2003	3,974,107	99,126	22,675	6,809	1,597	996	26,000	159,889	1,432,144
2004	3,981,512	97,662	22,256	6,875	1,596	1,187	26,000	163,474	1,484,813
2005	3,995,635	95,664	22,007	7,118	1,622	1,188	26,000	162,832	1,484,373
2006	4,016,741	94,801	21,708	6,972	1,623	1,280	26,000	162,699	1,503,758
2007	4,032,126	94,313	21,708	7,135	1,623	1,341	25,320	166,972	1,523,004
2008	4,042,778	94,082	21,708	7,261	1,623	1,397	25,320	169,422	1,530,012

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

Navigable waterways are estimated sums of all domestic waterways, which include rivers, bays, channels, and the inner route of the Southeast Alaskan Islands, but does not include the Great Lakes or deep ocean traffic. The Waterborne Commerce Statistics Center considers 12,000 miles as commercially significant inland shallow-draft waterways in 2007. *Hazardous liquid pipeline* includes trunk and gathering lines for crude-oil pipeline. *Gas pipeline* mileage includes transmission, gathering, and distribution.

Gas pipeline data are obtained from Pipeline and Hazardous Materials Safety Administration, while data from the American Gas Association were used in previous reports.

SOURCES: **Highway**: Federal Highway Administration; **Rail**: Association of American Railroads and National Railroad Passenger Corporation (Amtrak); *Transit*: Federal Transit Administration; **Navigable Waterways:** U.S. Army Corps of Engineers; **Pipeline**: Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-1, available at http://www.bts.gov/publications/national_transportation_statistics as of January 2010.

TABLE 2-1-2 Number of Air Carriers, Railroads, Interstate Motor Carriers, Marine Vessel Operators and Pipeline Operators: 1998–2008

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Air carriers	87	84	84	85	74	72	81	80	87	87	88
Major air carriers	14	14	16	16	15	14	15	15	21	22	22
Other air carriers	73	70	68	69	59	58	66	65	66	65	66
Railroads	559	555	560	571	552	549	556	560	559	563	565
Class I railroads	9	9	8	8	7	7	7	7	7	7	7
Other railroads	550	546	552	563	545	542	549	553	552	556	558
Interstate motor carriers[a]	477,486	517,297	560,393	592,909	600,104	674,314	677,317	679,744	692,789	711,792	715,011
Marine vessel operators	1,235	1,174	1,114	1,063	877	798	767	733	682	707	652
Pipeline operators	2,236	2,238	2,157	2,135	2,186	2,216	2,256	2,304	2,333	2,345	2,242
Hazardous liquid	219	215	220	220	217	234	280	306	331	340	339
Natural gas transmission	889	885	844	837	920	948	945	974	1,001	1,002	967
Natural gas distribution	1,375	1,393	1,363	1,341	1,331	1,311	1,356	1,364	1,349	1,357	1,285

[a]1998-2005 figures are for the fiscal year, October through September. 2006-2008 figures are snapshots dated Dec. 22, 2006; Dec. 21, 2007; and Dec. 19, 2008.

NOTES: *Air carrier* groups are categorized based on their total annual operating revenues as major, national, large regional, and medium regional. The annual operating revenue threshold for major air carriers is currently $1 billion, which is in Section 04 of Part 241 of Title 14 of the Code of Federal Regulations. The *other air carriers* category contains all national, large regional, and medium regional air carriers. *Interstate motor carrier* figures are for the fiscal year, October through September. The Federal Motor Carrier Safety Administration deletes motor carriers from the Motor Carrier Management Information System (MCMIS) when they receive an official notice of a change in status. This most often occurs when a safety audit or compliance review is attempted. As a result, inactive carriers may be included in the MCMIS.

There is some overlap among the operators for the pipeline modes so the total number of pipeline operators is lower than the sum for the three pipeline modes.

SOURCES: **Air**: Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information; **Railroads**: Association of American Railroads; **Motor Carriers**: Federal Motor Carrier Safety Administration; **Marine**: U.S. Army Corps of Engineers; **Pipeline**: Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-2, available at http://www.bts.gov/publications/national_transportation_statistics/ as of April 2010.

TABLE 2-1-3 Number of U.S. Aircraft, Vehicles, and Other Conveyances: 1998–2007

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Air										
Air carrier	8,111	8,228	8,055	8,497	8,194	8,176	8,186	8,225	8,089	8,044
General aviation (active fleet)	204,710	219,464	217,533	211,446	211,244	209,708	219,426	224,352	221,943	231,607
Highway, total (registered vehicles)										
Passenger car	131,838,538	132,432,044	133,621,420	137,633,467	135,920,677	135,669,897	136,430,651	136,568,083	135,399,945	135,932,930
Motorcycle	3,879,450	4,152,433	4,346,068	4,903,056	5,004,156	5,370,035	5,767,934	6,227,146	6,678,958	7,138,476
Other 2-axle 4-tire vehicle	71,330,205	75,356,376	79,084,979	84,187,636	85,011,305	87,186,663	91,845,327	95,336,839	99,124,775	101,469,615
Truck, single-unit 2-axle 6-tire or more	5,734,925	5,762,864	5,926,030	5,703,501	5,650,619	5,848,523	6,161,028	6,395,240	6,649,337	6,806,630
Truck, combination	1,997,345	2,028,562	2,096,619	2,154,174	2,276,661	1,908,365	2,010,335	2,086,759	2,169,670	2,220,995
Bus	715,540	728,777	746,125	749,548	760,717	776,550	795,274	807,053	821,959	834,436
Transit										
Motor bus	55,661	57,352	58,578	60,256	60,719	61,659	61,318	62,284	64,025	63,359
Light rail cars	1,061	1,160	1,306	1,359	1,448	1,482	1,622	1,645	1,801	1,802
Heavy rail cars	10,296	10,362	10,311	10,718	10,849	10,754	10,858	11,110	11,052	11,222
Trolley bus	646	657	652	600	616	672	597	615	609	559
Commuter rail cars and locomotives	5,535	5,549	5,497	5,528	5,631	5,866	6,130	6,290	6,300	6,279
Demand response	20,042	20,761	22,087	24,668	24,808	25,873	26,333	28,346	29,406	29,433
Other	7,105	7,467	7,705	8,137	8,033	8,626	10,544	11,622	12,454	12,953
Rail										
Class I, Freight cars	575,604	579,140	560,154	499,860	477,751	467,063	473,773	474,839	475,415	460,172
Class I, Locomotive	20,261	20,256	20,028	19,745	20,506	20,774	22,015	22,779	23,732	24,143
Nonclass I freight cars	121,659	126,762	132,448	125,470	130,590	124,580	120,169	120,195	120,688	120,463
Car companies and shippers freight cars	618,404	662,934	688,194	688,806	691,329	687,337	693,978	717,211	750,404	805,074
Amtrak, Passenger train car	1,962	1,992	1,894	2,084	2,896	1,623	1,211	1,186	1,191	1,164
Amtrak, Locomotive	345	329	378	401	372	442	276	258	319	270
Water										
Nonself-propelled vessels	33,509	33,387	33,152	33,042	32,381	31,335	31,296	32,052	32,211	31,654
Self-propelled vessels	8,523	8,379	8,202	8,546	8,621	8,648	8,994	8,976	8,898	9,041
Oceangoing steam and motor ships[a]	473	470	461	454	443	416	412	357	272	275
Recreational boats	12,565,930	12,738,271	12,782,143	12,876,346	12,854,054	12,794,616	12,781,476	12,942,414	12,746,126	12,875,568

[a] Beginning in 2006, vessels are reported if they are greater than 10,000 deadweight tons; prior to 2006, boats of greater than 1,000 deadweight tons were reported.

NOTES: *Air Carriers* are those aircraft carrying passengers or cargo for hire under 14 CFR 121 and 14 CFR 135. The number of aircraft is the monthly average of the number of aircraft reported in use for the last 3 months of the year. *General aviation* data includes air taxi aircraft. *Other* transit includes aerial tramway, automated guideway transit, Alaska railroad, cablecar, ferry boat, inclined plane, monorail, and vanpool. *Nonself-propelled vessels* include dry-cargo barges, tank barges, and railroad-car floats.

Self-propelled vessels include dry-cargo and/or passenger, offshore supply vessels, railroad-car ferries, tankers, and towboats. *Recreational boats* include those that are required to be numbered in accordance with Chapter 123 of Title 46 U.S.C.

SOURCES: **Air Carrier**: Aerospace Industries Association; **General Aviation**: Federal Aviation Administration; **Highway**: Federal Highway Administration; **Transit**: Federal Transit Administration; **Rail**: Association of American Railroads and National Railroad Passenger Corporation (Amtrak); **Water**: U.S. Army Corps of Engineers and U.S. Department of Homeland Security, U.S. Coast Guard as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-11, available at http://www.bts.gov/publications/national_transportation_statistics as of April 2010.

TABLE 2-1-4 Transportation Capital Stock by Mode: 1998–2008

Current dollars (billions)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Public highways and streets	1,252.9	1,335.2	1,435.2	1,498.3	1,560.1	1,594.0	1,837.6	2,056.0	2,354.5	2,643.3	2,465.2
Consumer motor vehicles	917.1	980.2	1,041.5	1,105.2	1,162.0	1,210.4	1,268.5	1,302.4	1,306.8	1,318.8	1,260.9
In-house transportation	499.5	553.7	599.0	620.9	634.0	663.4	696.1	738.5	791.2	818.0	822.0
Other publicly owned transportation	229.6	245.3	266.6	280.4	304.8	325.3	379.3	419.8	477.5	529.9	502.0
Railroad transportation	278.0	280.7	285.8	293.9	296.0	301.7	305.4	312.0	320.4	330.0	340.6
Air transportation	151.4	167.8	190.9	211.4	218.8	223.8	233.5	239.4	243.2	252.6	265.7
Other privately owned transportation	102.3	104.2	107.8	109.4	107.4	106.4	109.1	111.5	116.5	117.8	120.0
Pipeline transportation	65.2	69.5	74.0	77.1	82.4	85.9	105.2	115.3	123.8	137.3	163.4
Commercial truck transportation	65.2	67.7	69.8	68.7	68.1	67.7	71.6	82.6	94.1	94.0	95.3
Water transportation	37.7	39.0	40.4	41.2	43.6	45.3	47.8	50.5	55.7	59.0	62.3
Private ground passenger transportation	31.0	33.6	35.9	37.2	36.8	37.7	39.2	40.9	43.5	45.5	47.4
Total	**3,629.9**	**3,876.9**	**4,146.9**	**4,343.7**	**4,514.0**	**4,661.6**	**5,093.3**	**5,468.9**	**5,927.2**	**6,346.2**	**6,144.8**

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

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, *Fixed Asset Tables*, tables 3.1ES, 7.1B, 8.1, and Nonresidential Detailed Estimates, available at http://www.bea.gov/ as of December 2009.

Aviation

TABLE 2-2-1 Number of U.S. Airports: 1998–2008

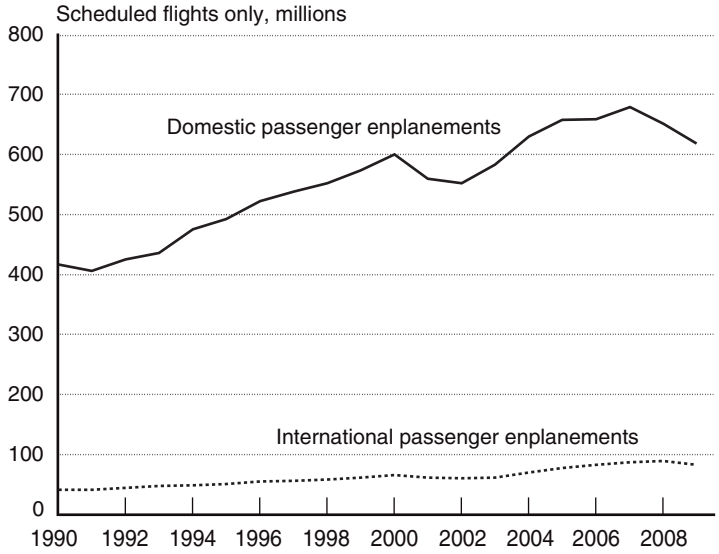
		Public use			Private use					
			Runways (percent)			Runways (percent)				
	Total, airports	Total	Lighted	Paved	Total	Lighted	Paved	Certificated, total	Civil	Military
1998	18,770	5,352	74.8	74.2	13,418	6.3	33.2	660	566	94
1999	19,098	5,324	76.1	74.2	13,774	6.7	31.8	655	565	90
2000	19,281	5,317	75.9	74.3	13,964	7.2	32.0	651	563	88
2001	19,356	5,294	76.2	74.6	14,062	8.0	32.4	635	560	75
2002	19,572	5,286	76.1	74.5	14,286	8.3	32.4	633	558	75
2003	19,581	5,286	76.2	74.5	14,295	8.6	32.7	628	555	73
2004	19,820	5,288	76.3	74.5	14,532	9.0	32.8	599	542	57
2005	19,854	5,270	76.8	74.8	14,584	9.2	33.2	575	U	U
2006	19,983	5,233	77.2	75.3	14,757	9.5	33.3	604	U	U
2007	20,341	5,221	U	U	14,839	U	U	565	U	U
2008	19,930	5,202	U	U	14,451	U	U	560	U	U

KEY: U = data are unavailable.

NOTES: Includes civil and joint-use civil-military airports, heliports, STOL (short takeoff and landing) ports, and seaplane bases in the United States and its territories. Publicly owned facilities are open for public use with no prior authorization or permission. *Certificated* airports serve any— (1) scheduled passenger-carrying operations of an air carrier operating aircraft designed for more than 9 passenger seats; and (2) unscheduled passenger-carrying operations of an air carrier operating aircraft designed for at least 31 passenger seats.

SOURCE: U.S. Department of Transportation, Federal Aviation Administration, *Administrator's Fact Book* (Annual Issues), available at http://www.faa.gov/ as of September 2009 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-3, available at http://www.bts.gov/publications/national_transportation_statistics/ as of October 2009.

FIGURE 2-2-2 Annual U.S. Airline Passenger Enplanements: 1990–2009



SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *Airline Industry Quick Facts, Passengers*, available at http://www.bts.gov/ as of July 2010.

TABLE 2-2-2 Annual U.S. Airline Passenger Enplanements: 2000–2009
Scheduled flights only

	Domestic enplanements	Domestic load factor (percent)	International enplanements	International load factor (percent)	Total domestic and international enplanements	Total domestic and international load factor (percent)
2000	599,563,678	71.3	65,923,125	75.3	665,486,803	72.3
2001	559,618,055	69.2	61,750,993	72.2	621,369,048	70.0
2002	551,960,680	70.4	60,878,039	76.0	612,838,719	71.8
2003	583,293,762	72.8	60,941,211	75.8	644,234,973	73.5
2004	629,768,490	74.5	70,462,237	78.4	700,230,727	75.5
2005	657,261,487	77.2	77,843,181	78.8	735,104,668	77.6
2006	658,362,617	79.2	82,735,582	79.4	741,098,199	79.2
2007	679,168,758	79.9	87,457,824	80.0	766,626,582	79.9
2008	651,634,596	79.8	88,750,993	79.0	740,385,589	79.5
2009	618,395,238	81.1	83,112,177	78.8	701,507,415	80.4

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *Airline Industry, Quick Facts, Passengers*, available at http://www.bts.gov/ as of July 2010.

TABLE 2-2-3 Top 10 U.S. Airports Ranked by Domestic Scheduled Passenger Enplanements: 2000 and 2009
U.S. and foreign carriers combined

2009 rank	Airport	2009 enplaned passengers	2000 rank	Airport	2000 enplaned passengers
1	Atlanta, GA	37,812,901	1	Atlanta, GA	36,075,361
2	Chicago, IL (O'Hare)	26,045,472	2	Chicago, IL (O'Hare)	28,184,368
3	Dallas/Ft.Worth, TX	24,280,857	3	Dallas/Ft.Worth, TX	25,738,408
4	Denver, CO	23,013,957	4	Los Angeles, CA	23,126,721
5	Los Angeles, CA	20,137,517	5	Denver, CO	17,323,890
6	Las Vegas, NV	18,141,416	6	Phoenix, AZ	16,962,276
7	Phoenix, AZ	17,628,887	7	Las Vegas, NV	15,736,030
8	Charlotte, NC	15,996,428	8	Minneapolis, MN	15,282,538
9	Houston, TX (Bush)	15,443,794	9	Detroit, MI (Metro)	15,193,778
10	Orlando, FL	14,892,126	10	San Francisco, CA	14,965,260

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *T100-Market Database*, special tabulation, July 2010.

TABLE 2-2-4 Top 10 U.S. Airports Ranked by International Scheduled Passenger Enplanements: 2009 and 2000
U.S. and foreign carriers combined

2009 rank	Airport	2009 enplaned passengers	2000 rank	Airport	2000 enplaned passengers
1	New York, NY (J.F. Kennedy)	10,703,228	1	New York, NY (J.F. Kennedy)	8,779,593
2	Miami, FL	7,710,103	2	Los Angeles, CA	8,104,903
3	Los Angeles, CA	7,283,088	3	Miami, FL	7,661,383
4	Newark, NJ	5,295,252	4	Chicago, IL (O'Hare)	4,723,652
5	Chicago, IL (O'Hare)	5,068,106	5	Newark, NJ	4,349,280
6	Atlanta, GA	4,325,458	6	San Francisco, CA	3,909,166
7	San Francisco, CA	3,946,152	7	Atlanta, GA	3,021,737
8	Houston, TX (Bush)	3,811,278	8	Houston, TX (Bush Intercontinental)	2,640,483
9	Washington, DC (Dulles)	2,934,267	9	Honolulu, HI	2,486,542
10	Dallas/Ft.Worth, TX	2,310,286	10	Dallas/Ft.Worth, TX	2,230,835

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *T100-Market Database*, special tabulation, July 2010.

TABLE 2-2-5 Domestic Enplanements at U.S. Airports: 1999–2009

Thousands of passengers

	Total enplanements	Large hubs	Medium hubs	Small hubs	Nonhubs
1999	602,649	440,618	107,215	38,573	16,242
2000	628,389	457,709	113,425	39,730	17,525
2001	638,903	478,845	101,986	40,116	17,955
2002	585,602	424,651	104,602	39,648	16,700
2003	620,251	443,738	109,131	46,818	20,563
2004	668,648	467,082	126,898	52,787	21,881
2005	701,088	483,869	140,896	53,115	23,208
2006	703,517	487,176	140,614	53,047	22,680
2007	726,373	501,736	144,888	57,247	22,502
2008	697,100	478,700	142,096	54,303	22,001
2009	662,966	461,020	126,650	54,910	20,386

NOTES: Data are for all scheduled and nonscheduled (chartered) service by large certificated U.S. air carriers at all domestic airports served within the 50 states, the District of Columbia, and other U.S. areas designated by the Federal Aviation Administration (FAA). Not all scheduled service is actually performed.

Prior to 2000 and after 2007 air traffic hubs are designated as geographical areas based on the percentage of total passengers enplaned in the area. Under this designation, a hub may have more than one airport in it. (This definition of hub should not be confused with the definition 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 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. For 2000-2006, hub designation is based on passenger boardings at individual airports as designated by the FAA. Classifications are based on the percentage of total enplaned revenue passengers for each year according to the following: *Large* = 1 percent or more, *Medium* = 0.25 to 0.9999 percent, *Small* = 0.05 to 0.249 percent, *Nonhub* = less than 0.05.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *Airport Activity Statistics Database* (Form 41 Schedule T-3), special tabulation, July 2010.

TABLE 2-2-6 Number of U.S. Airports With Scheduled Passenger Service: 2000–2009

	Number of U.S. airports
2000	419
2001	412
2002	807
2003	835
2004	828
2005	828
2006	811
2007	798
2008	776
2009	753

NOTES: 298C (small carriers) and commuter carriers began reporting in 2002. See glossary for definition of *small carriers*. *U.S. airports* include those in the U.S., Puerto Rico, and the U.S. Virgin Islands.

Prior to 2000 and after 2007 air traffic hubs are designated as geographical areas based on the percentage of total passengers enplaned in the area. Under this designation, a hub may have more than one airport in it. (This definition of hub should not be confused with the definition 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 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. For 2000-2006, hub designation is based on passenger boardings at individual airports as designated by the FAA. Classifications are based on the percentage of total enplaned revenue passengers for each year according to the following: *Large* = 1 percent or more, *Medium* = 0.25 to 0.9999 percent, *Small* = 0.05 to 0.249 percent, *Nonhub* = less than 0.05.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *T100-Segment Database*, special tabulation, July 2010.

TABLE 2-2-7 U.S. Airline Industry Operating Margins: 2000–2008

	Operating margin (percent)
2000	5.39
2001	-8.96
2002	-8.00
2003	-1.78
2004	1.11
2005	0.30
2006	4.61
2007	5.35
2008	-1.80

NOTE: See glossary for definition of *operating margin*.

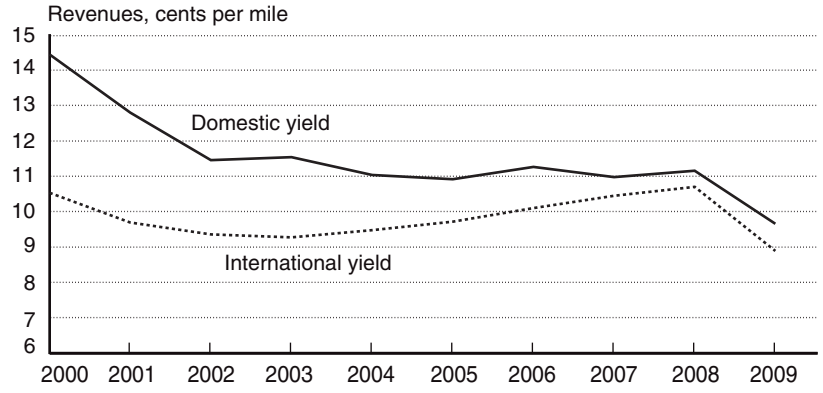
SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *TranStats Database, Air Carrier Financial Reports* (Form 41 Financial Data),special tabulation, January 2010.

TABLE 2-2-8 U.S. Airline Net Income (Profit): 2000–2008
Millions of current dollars

	Net income
2000	3,116
2001	-8,420
2002	-11,154
2003	-1,584
2004	-9,086
2005	-27,240
2006	18,047
2007	7,722
2008	27,779

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *TranStats Database*, P11, P12, and F11 databases, special tabulation, December 2009.

FIGURE 2-2-9 U.S. Airline Industry Passenger Yields: 2000–2009



SOURCE: **Domestic Yield and International Yield:** U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *TranStats Database, Air Carrier Financial Reports* (Form 41 Financial Data), special tabulation, January 2010; **Consumer Price Index**: U.S. Department of Labor, Bureau of Labor Statistics, ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt as of January 2010.

TABLE 2-2-9 U.S. Airline Industry Passenger Yields: 2000–2009

Revenues, cents per mile

	Domestic yield	International yield
2000	14.44	10.53
2001	12.80	9.69
2002	11.45	9.35
2003	11.54	9.27
2004	11.03	9.47
2005	10.92	9.71
2006	11.26	10.10
2007	10.97	10.45
2008	11.15	10.70
2009	9.66	8.89

NOTE: Yields are adjusted to year 2000 dollars using the Consumer Price Index-Urban as the deflator. 2009 yields are through September 2009.

SOURCE: **Domestic Yield and International Yield**: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *TranStats Database, Air Carrier Financial Reports* (Form 41 Financial Data), special tabulation, January 2010; **Consumer Price Index**: U.S. Department of Labor, Bureau of Labor Statistics, available at ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt as of January 2010.

TABLE 2-2-10 Domestic and International U.S. Airline Operating Revenue/Cost Per Available Seat Mile (ASM): 2000–2009

Cents per available seat mile

	Revenue per ASM	Cost per ASM
2000	10.96	10.34
2001	9.87	11.01
2002	9.46	10.53
2003	10.41	10.77
2004	11.09	11.37
2005	11.92	12.06
2006	13.08	12.57
2007	13.43	12.77
2008	14.43	14.98
2009	13.01	12.91

NOTE: *Operating revenues* are from scheduled flights only. See glossary for definition of *operating revenues*.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *Air Carrier Financial Reports* (Form 41 Financial Database), special tabulation, July 2010.

TABLE 2-2-11 Annual Domestic and International U.S. Airline Industry Operating Revenues: 2000–2009

Thousands of dollars

	Operating revenues
2000	130,248,220
2001	115,226,970
2002	107,124,627
2003	117,768,015
2004	134,660,283
2005	151,544,403
2006	165,531,803
2007	174,696,416
2008	186,118,528
2009	154,988,807

NOTE: *Operating revenues* are from scheduled flights only. See glossary for definition of *operating revenues*.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *Airline Industry, Quick Facts, Operating Revenue*, available at http://www.bts.gov/ as of July 2010.

TABLE 2-2-12 U.S. Airline Industry Ancillary Fees: 1998–2009
Thousands of dollars

	Passenger revenues	Baggage fees	Cancellation fees	Transport related	Operating revenues
1998	80,985,234	154,349	400,282	14,426,833	113,105,120
1999	84,317,500	163,817	418,561	15,401,057	118,892,026
2000	93,638,550	209,807	447,641	15,258,808	130,248,220
2001	80,943,175	152,959	514,313	14,780,821	115,226,970
2002	73,351,854	180,226	569,559	13,488,739	107,124,627
2003	77,342,132	259,156	635,819	15,755,062	117,768,015
2004	85,696,753	285,754	706,253	22,914,426	134,660,283
2005	93,633,337	341,935	841,386	28,729,015	151,544,403
2006	101,967,725	441,010	900,862	32,148,106	165,531,803
2007	107,678,067	464,284	915,231	33,669,636	174,696,416
2008	111,541,751	1,149,613	1,668,748	35,893,444	186,054,485
2009	91,502,937	2,728,850	2,373,019	31,006,654	154,988,807

NOTE: Starting in October 2002, a change in reporting requirements for airline code share operations caused more revenues to be reported in the *transport related* category and less revenues to be reported in the *passenger revenues* catagory.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *TranStats Database, Air Carrier Financial Reports* (Form 41 Financial Data), special tabulation, July 2010.

TABLE 2-2-13 Domestic and International U.S. Airline Industry Percent of Operating Expenses by Category: 2000–2009
Percent

	Salary and benefits	Fuel	Aircraft maintenance	Aircraft ownership	Transport related	All other
2000	33.2	13.8	12.3	19.4	10.5	10.8
2001	34.3	12.5	12.2	19.7	10.0	11.3
2002	36.4	11.8	12.4	20.4	10.1	8.9
2003	34.1	13.5	11.4	19.8	13.0	8.2
2004	30.1	16.9	10.7	18.2	15.8	8.3
2005	25.9	22.0	10.3	16.1	16.7	9.0
2006	24.5	24.6	10.1	15.2	16.5	9.1
2007	24.1	25.3	10.2	14.3	16.7	9.4
2008	20.9	30.9	9.0	12.3	16.5	10.4
2009	26.8	23.1	7.3	14.5	14.0	14.3

NOTE: Percents may not add to 100 due to rounding.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *Air Carrier Financial Reports* (Form 41 Financial Data), special tabulation, July 2010.

Motor Vehicles

TABLE 2-3-1 Average Cost Per Mile of Owning and Operating an Automobile: 1998–2008

Current dollars

	Variable costs	Fixed costs	Total costs
1998	0.11	0.35	0.46
1999	0.11	0.36	0.47
2000	0.12	0.37	0.49
2001	0.14	0.37	0.51
2002	0.12	0.38	0.50
2003	0.13	0.39	0.52
2004	0.13	0.44	0.56
2005	0.15	0.37	0.52
2006	0.15	0.38	0.52
2007	0.17	0.37	0.54
2008	0.15	0.39	0.54

NOTES: Details may not add to totals due to rounding. Data are the cost per mile based on 15,000 miles per year and a composite of three current model American automobiles. *Variable costs* include fuel, maintenance, and tires. Fuel costs are based on a late year average price per gallon of regular unleaded gasoline. *Fixed costs* (ownership costs) include insurance, license, registration, taxes, depreciation, and finance charges.

SOURCE: American Automobile Association, *Your Driving Costs* (Heathrow, FL: Annual Issues), available at http://www.aaaexchange.com/Main/ as of April 2009 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 3-14, available at http://www.bts.gov/publications/national_transportation_statistics as of July 2009.

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

TABLE 2-3-2 Roadside Truck Inspections: 1998–2008
Thousands

	Trucks inspected	Trucks taken out of service	Inspected trucks taken out of service (percent)
1998	1,763	448	25.4
1999	1,862	453	24.3
2000	1,928	457	23.7
2001	2,072	486	23.5
2002	2,173	498	22.9
2003	2,165	495	22.8
2004	2,253	532	23.6
2005	2,970	676	22.8
2006	3,194	735	23.0
2007	3,274	717	21.9
2008	3,340	706	21.1

NOTES: Trucks are taken out of service (OOS) when inspectors find serious violations that warrant the issuance of a vehicle OOS order. There may be data inconsistencies across the 1998-2006 time series. The Bureau of Transportation Statistics obtained the data at different times (see *Sources*) and was unable to verify the consistency of the entire data series prior to publication.

SOURCES: **1999–2000**: U.S. Department of Transportation (USDOT), Federal Motor Carrier Safety Administration (FMCSA), personal communication, Aug. 11, 2003; **2001–2008**: USDOT, FMCSA, *Roadside Inspection Activity Summary by Inspection Type*, available at http://ai.volpe.dot.gov/site-guide/data.asp as of October 2009.

TABLE 2-3-3 Annual U.S. Motor Vehicle Production and Factory (Wholesale) Sales: 1998–2008

Thousands of units

	Production			Sales		
	Passenger cars	Commercial vehicles[a]	Total	Passenger cars	Commercial vehicles[a]	Total
1998	5,554	6,448	12,003	5,677	6,435	12,112
1999	5,638	7,387	13,025	5,428	6,699	12,127
2000	5,542	7,231	12,774	5,504	7,022	12,527
2001	4,879	6,546	11,425	4,884	6,224	11,108
2002	5,019	7,261	12,280	U	7,286	U
2003	4,510	7,577	12,087	U	7,606	U
2004	4,230	7,731	11,960	U	7,846	U
2005	4,321	7,625	11,947	U	7,798	U
2006	4,367	6,893	11,260	U	7,059	U
2007	3,924	6,828	10,752	U	6,946	U
2008	3,777	4,896	8,673	U	5,105	U

KEY: U = data are unavailable.

[a] Includes trucks under 10,000 pounds gross vehicle weight rating (GVWR), such as compact and conventional pickups, sport utility vehicles, minivans, and vans, and trucks and buses over 10,000 pounds GVWR.

NOTES: Factory sales can be greater than production totals because of sales from previous year's inventory. *Production* data does not include buses. Details may not add to totals due to rounding. Ward's stopped collecting sales data for *Passenger cars* after 2001 because sales data are very close to production data.

SOURCE: *Ward's Motor Vehicle Facts and Figures* (Southfield, MI: Annual Issues) as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-15, available at http://www.bts.gov/publications/national_transportation_statistics/ as of October 2009.

Marine Transportation System

TABLE 2-4-1 U.S. Waterway Facilities: 2000–2009

	Commercial facilities				
	Great Lakes	Inland	Ocean	Total	Lock sites
2000	763	2,376	6,171	9,310	230
2001	754	2,367	6,188	9,309	230
2002	754	2,367	6,067	9,188	230
2003	754	2,361	6,049	9,164	230
2004	754	2,361	6,057	9,172	212
2005	754	2,321	6,324	9,399	212
2006	754	2,321	6,509	9,584	212
2007	754	2,321	6,509	9,584	212
2008	754	2,321	6,509	9,584	212
2009[a]	646	1,883	6,467	8,350	192

[a]Includes cargo-handling docks based upon a new database and only active U.S. Army Corps of Engineers-operated locks.

NOTES: *Commercial facilities* is comprised of Great Lakes, Inland, and Ocean facilities. Only federal and state governments own locks. Therefore, locks are not included in the commercial facilities total.

SOURCE: U.S. Army Corps of Engineers, The U.S. *Waterway System—Transportation Facts* (Alexandria, VA: Annual Issues), Geographic Distribution of U.S. Waterway Facilities, available at http://www.iwr.usace.army.mil/ndc/factcard/fc08/factcard.htm as of July 2010.

TABLE 2-4-2 North America Cruise Passengers by Departure Port: 2003–2008
Thousands

Departure port	2003	2004	2005	2006	2007	2008	Percent change, 2003-2008	Percent change, 2007-2008
Miami, FL	1,867	1,683	1,771	1,890	1,890	2,099	12.4	11.1
Port Canaveral, FL	1,114	1,230	1,234	1,396	1,298	1,226	10.1	-5.5
Fort Lauderdale, FL	1,100	1,237	1,199	1,145	1,289	1,187	7.9	-7.9
Los Angeles, CA	516	434	615	583	626	607	17.6	-3.0
San Juan, PR	579	677	581	555	534	521	-10.0	-2.4
New York, NY	432	461	370	519	525	477	10.4	-9.1
Seattle, WA	165	291	337	382	386	435	163.6	12.7
San Diego, CA	93	173	234	180	341	416	347.3	22.0
Vancouver, Canada	466	436	434	402	462	406	-12.9	-12.1
Galveston, TX	377	433	531	616	529	403	6.9	-23.8
Tampa, FL	419	399	408	461	368	393	-6.2	6.8
Long Beach, CA	171	401	363	380	367	365	113.5	-0.5
New Orleans, LA	297	396	308	75	258	185	-37.7	-28.3
Honolulu, HI	173	170	236	316	382	166	-4.0	-56.5
Cape Liberty, NJ	0	87	147	140	115	163	NA	41.7
Mobile, AL	0	29	88	99	130	146	NA	12.3
Whittier, AK	0	88	96	109	113	104	NA	-8.0
Jacksonville, FL	6	114	137	128	130	87	1350.0	-33.1
Seward, AK	152	75	68	69	76	80	-47.4	5.3
San Francisco, CA	52	87	89	91	74	72	38.5	-2.7
Boston, MA	69	73	80	62	52	69	0.0	32.7
Charleston, SC	32	39	41	47	44	53	65.6	20.5
Baltimore, MD	57	105	67	60	62	46	-19.3	-25.8
Norfolk, VA	15	48	45	25	31	41	173.3	32.3
Philadelphia, PA	25	30	50	52	30	14	-44.0	-53.3
Houston, TX	13	91	99	60	27	10	-23.1	-63.0
Other	161	132	120	129	149	143	-11.2	-4.0
Total	**8,349**	**9,418**	**9,747**	**9,971**	**10,289**	**9,915**	**18.8**	**-3.6**

KEY: NA = not applicable.

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Transportation, Maritime Administration, *U.S. Water Transportation Statistical Snapshot* (Washington, DC: July 2009), available at http://www.marad.dot.gov/library_landing_page/data_and_statistics/Data_and_Statistics.htm as of October 2009.

TABLE 2-4-3 Average Capacity of Vessels Calling at U.S. Ports by Type: 1998–2008

Deadweight tonnage (dwt) per call

	Combination	Tanker	Dry bulk	Container	Roll-on/roll-off vessels	Gas carriers	General cargo	All vessels
1998	82,895	68,670	41,740	36,243	19,898	29,954	21,409	45,289
1999	88,433	67,723	41,833	36,586	18,662	31,402	22,331	45,117
2000	89,462	67,551	41,694	37,784	18,456	31,397	22,857	45,646
2001	87,873	69,313	42,142	39,656	20,445	33,438	23,416	47,034
2002	84,459	69,412	42,876	42,158	20,376	32,099	23,496	47,625
2003	84,016	72,387	42,685	43,168	20,270	37,818	23,655	49,557
2004	84,699	70,690	42,972	43,610	20,191	39,145	24,542	49,125
2005	87,151	72,056	43,276	44,593	19,838	41,411	25,101	50,083
2006	86,344	71,831	44,746	46,598	19,751	40,738	25,446	50,672
2007	93,617	72,222	45,270	47,720	19,635	40,462	25,572	51,658
2008	97,607	72,281	47,306	49,213	20,153	40,755	24,585	52,535

NOTES: Calls are by oceangoing vessels of 10,000 dwt or greater at U.S. ports, excluding Great Lakes ports. Beginning in 2002, chemical tanker data are no longer reported separately and are, instead, included in tanker data; historical data were adjusted for consistency. See glossary for definitions of vessel types.

SOURCES: **1998–2001**: U.S. Department of Transportation, Maritime Administration, Office of Statistical and Economic Analysis, *Vessel Calls at U.S. Ports Snapshot* (Washington, DC: Annual Issues); **2002–2008**: U.S. Department of Transportation, Maritime Administration, Office of Policy and Plans, *U.S. Water Transportation Statistical Snapshot 2008* (Washington, DC: July 2009), available at http://www.marad.dot.gov/library_landing_page/data_and_statistics/Data_and_Statistics.htm as of October 2009.

TABLE 2-4-4 Top 10 U.S. Maritime Container Ports: 1999–2009
Thousands of TEU

Port	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Percent change, 1998-2008	Average annual growth rate, 1998-2008 (percent)
Los Angeles/Long Beach, CA	5,600	6,431	6,624	7,243	7,755	8,639	9,327	10,460	10,662	10,164	8,759	56.4	4.6
New York, NY	2,027	2,200	2,355	2,627	2,803	3,163	3,417	3,651	3,893	3,956	3,577	76.4	5.8
Seattle/Tacoma, WA	1,543	1,607	1,436	1,619	1,746	1,990	2,502	2,306	2,409	2,197	1,939	25.6	2.3
Savannah, GA	624	720	813	1,014	1,124	1,290	1,491	1,588	2,017	2,106	1,907	205.4	11.8
Oakland, CA	915	989	963	979	1,064	1,197	1,378	1,398	1,423	1,388	1,392	52.2	4.3
Norfolk, VA	829	850	885	982	1,093	1,206	1,325	1,414	1,568	1,585	1,372	65.5	5.2
Houston, TX	714	733	783	851	933	1,098	1,250	1,276	1,394	1,363	1,255	75.8	5.8
Charleston, SC	1,170	1,246	1,159	1,197	1,250	1,421	1,522	1,507	1,401	1,326	951	-18.7	-2.1
Miami, FL	618	684	717	752	764	795	778	746	673	669	624	0.8	0.1
Port Everglades, FL	473	439	417	370	423	500	587	635	686	681	535	13.1	1.2
Total top 10 ports	**14,513**	**15,900**	**16,153**	**17,634**	**18,955**	**21,299**	**23,577**	**24,982**	**26,126**	**25,435**	**22,310**	**53.7**	**4.4**
Total all ports[a]	16,564	17,938	18,117	19,729	21,289	23,851	26,092	27,631	29,020	28,309	24,989	50.9	4.2
Top 10, percent of total	87.6	88.6	89.2	89.4	89.0	89.3	90.4	90.4	90.0	89.8	89.3		

KEY: TEU = twenty-foot equivalent unit.

[a] The statistics include both government and non-government shipments by vessel into and out of U.S. foreign trade zones, the 50 states, District of Columbia, and Puerto Rico.

NOTES: One twenty-foot container equals one TEU while one forty-foot container equals two TEUs. The data in this table include only loaded containers in U.S. international maritime activity. It includes U.S. imports, exports, and transshipments. Therefore, the trade levels will be greater than those reported from U.S. international trade statistics, which excludes transshipments. The statistics exclude postal and military shipments.

SOURCE: U.S. Department of Transportation, Maritime Administration, *U.S. Waterborne Foreign Container Trade by U.S. Custom Ports* (Washington, DC: Annual Issues), available at http://www.marad.dot.gov/library_landing_page/data_and_statistics/Data_and_Statistics.htm as of July 2010.

TABLE 2-4-5 Vessel Calls at U.S. Ports: 2002–2008

Number of 10,000 deadweight tonnage (dwt) or greater vessel calls

Type	2002	2003	2004	2005	2006	2007	2008	Percent change, 2002–2008
Tanker	17,320	18,503	19,316	20,118	21,231	21,724	20,907	20.7
Double hull	10,045	11,905	14,055	15,869	17,747	19,026	19,036	89.5
Product	10,949	10,998	11,572	12,217	13,282	13,277	12,662	15.6
Double hull	5,770	6,578	7,712	8,799	10,252	10,811	10,952	89.8
Crude	6,371	7,505	7,744	7,901	7,949	8,447	8,245	29.4
Double hull	4,275	5,327	6,343	7,070	7,495	8,215	8,084	89.1
Container	17,138	17,287	18,279	18,542	19,591	19,863	18,735	9.3
Dry Bulk	11,112	10,271	11,631	11,406	12,508	11,040	10,363	-6.7
Ro-Ro	5,632	5,191	5,317	5,663	6,318	6,077	5,964	5.9
Vehicle	3,605	3,113	3,065	3,652	4,182	4,084	4,102	13.8
Gas	739	926	916	969	961	917	769	4.1
LNG	89	164	173	203	213	202	171	92.1
Combination	761	666	459	414	334	235	180	-76.3
General	3,894	3,915	3,967	3,935	4,054	3,948	3,660	-6.0
All Types	**56,596**	**56,759**	**59,885**	**61,047**	**64,997**	**63,804**	**60,578**	**7.0**

NOTES: LNG = Liquified Natural Gas. Ro-Ro = Roll on-Roll off. See glossary for definitions of vessel types.

SOURCE: U.S. Department of Transportation, Maritime Administration, *Vessel Calls at U.S. Ports by Vessel Type* (Washington, DC: September 2009), available at http://www.marad.dot.gov/library_landing_page/data_and_statistics/Data_and_Statistics.htm as of October 2009.

TABLE 2-4-6 U.S. International Maritime Container Volumes: 1999–2009
Millions of TEU

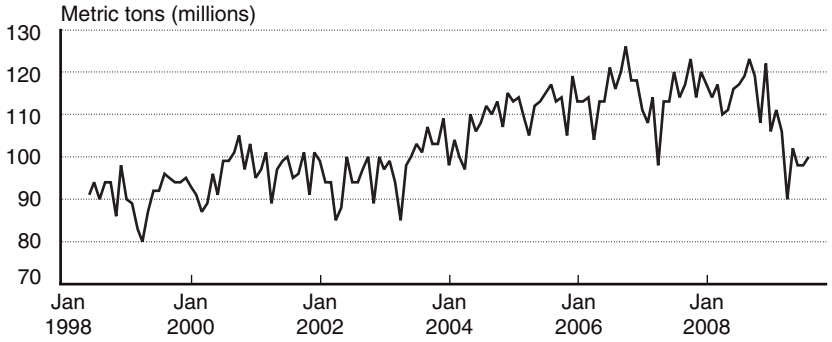
	Exports	Imports	Container balance (exports minus imports)
1998	6.6	8.9	-2.28
1999	6.6	10.0	-3.36
2000	6.9	11.1	-4.24
2001	6.8	11.3	-4.42
2002	6.8	12.9	-6.10
2003	7.4	13.9	-6.51
2004	8.0	15.8	-7.76
2005	8.7	17.4	-8.68
2006	9.0	18.6	-9.64
2007	10.5	18.5	-8.08
2008	11.3	17.0	-5.75
2009	10.4	14.6	-4.14

KEY: TEU = twenty-foot equivalent unit.

NOTE: One twenty-foot container equals one TEU while one forty-foot container equals two TEU.

SOURCE: U.S. Department of Transportation, Maritime Administration, *U.S. Waterborne Foreign Container Trade by U.S. Custom Ports* (Washington, DC: Annual Issues), available at http://www.marad.dot.gov/library_landing_page/data_and_statistics/Data_and_Statistics.htm as of July 2010.

FIGURE 2-4-7 U.S.-Foreign Waterborne Freight: April 1998–August 2009
Tonnage of U.S. waterborne imports and exports (monthly, not seasonally adjusted)



SOURCE: **April 1998–December 2005**: U.S. Department of Transportation, Maritime Administration, *U.S. Foreign Waterborne Transportation Statistics Data*, September 2006; **January 2006–August 2009**: U.S. Department of Commerce, U.S. Census Bureau, *Foreign Trade Statistics*, available at http://www.census.gov/foreign-trade/statistics/index.html as of December 2009.

TABLE 2-4-7 U.S.-Foreign Waterborne Freight: January 2008–June 2009
Tonnage of U.S. waterborne imports and exports (monthly, not seasonally adjusted)

	Metric tons (thousands)
January 2008	116,958
February 2008	110,072
March 2008	111,066
April 2008	115,603
May 2008	116,779
June 2008	118,578
July 2008	122,937
August 2008	119,100
September 2008	107,964
October 2008	121,714
November 2008	105,573
December 2008	111,373
January 2009	105,683
February 2009	90,112
March 2009	101,643
April 2009	98,033
May 2009	98,033
June 2009	99,988

NOTES: Import and export tonnage helps identify the volume of cargo flowing through U.S. ports and the resulting vessel traffic on U.S. coastal waters. It also helps identify needs for intermodal truck and rail traffic. Most U.S. coastal ports handle both foreign and domestic cargoes.

A metric ton is equal to 2,204.6 pounds.

SOURCES: **April 1998–December 2005**: U.S. Department of Transportation, Maritime Administration, *U.S. Foreign Waterborne Transportation Statistics Data*, September 2006; **January 2006–June 2009**: U.S. Department of Commerce, U.S. Census Bureau, *Foreign Trade Statistics*, available at http://www.census.gov/foreign-trade/statistics/index.html as of December 2009.

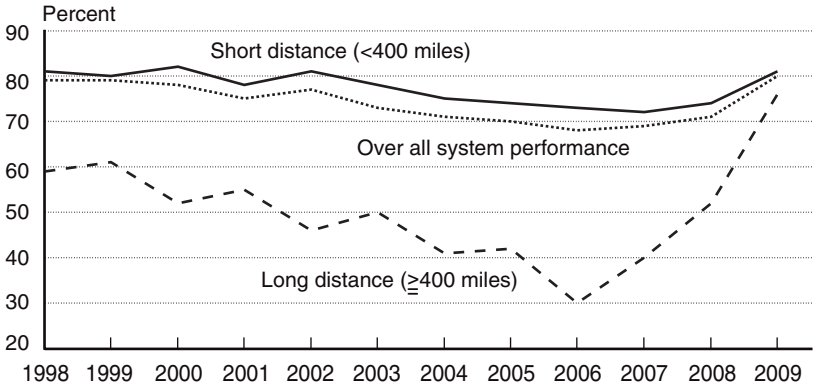
Rail

TABLE 2-5-1 Top 25 Busiest Amtrak Stations: Fiscal Year 2009
Number of tickets

Station	Tickets from	Tickets to	Total ridership
New York, NY	3,936,117	3,896,757	7,832,874
Washington, DC	2,146,244	2,132,686	4,278,930
Philadelphia, PA	1,837,854	1,837,907	3,675,761
Chicago, IL	1,542,825	1,537,739	3,080,564
Los Angeles, CA	737,295	738,625	1,475,920
Boston, MA	641,948	645,667	1,287,615
Sacramento, CA	561,533	547,818	1,109,351
Baltimore, MD	465,475	467,352	932,827
San Diego, CA	370,080	361,314	731,394
Albany-Rensselaer, NY	362,555	361,358	723,913
Wilmington, DE	330,966	333,463	664,429
New Haven, CT	331,688	329,968	661,656
Newark, NJ	318,454	312,485	630,939
Irvine, CA	314,587	315,161	629,748
Portland, OR	309,848	308,283	618,131
BWI Airport, MD	306,156	311,193	617,349
Seattle, WA	313,261	302,474	615,735
Providence, RI	288,570	293,726	582,296
Milwaukee, WI	278,079	275,396	553,475
Harrisburg, PA	270,586	268,581	539,167
Emeryville, CA	259,887	261,082	520,969
Lancaster, PA	246,244	246,385	492,629
Davis, CA	222,182	212,597	434,779
Fullerton, CA	208,849	208,800	417,649
Trenton, NJ	205,101	206,768	411,869

SOURCE: National Railroad Passenger Corporation (Amtrak), *National Fact Sheet: FY 2009: 25 Busiest Stations*, (Washington, DC: February 2009), available at http://www.amtrak.com/servlet/ContentServer/Page/1241256467960/1241245669129 as of June 2010.

FIGURE 2-5-2 Amtrak Trains Arriving On Time: 1998–2009



SOURCES: **1998–1999**: National Railroad Passenger Corporation (Amtrak), *Amtrak Annual Report* (Washington, DC: Annual Issues); **2000–2009**: Amtrak, personal communication, November 2009 as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-67, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

TABLE 2-5-2 Amtrak Trains Arriving On Time: 1998–2009

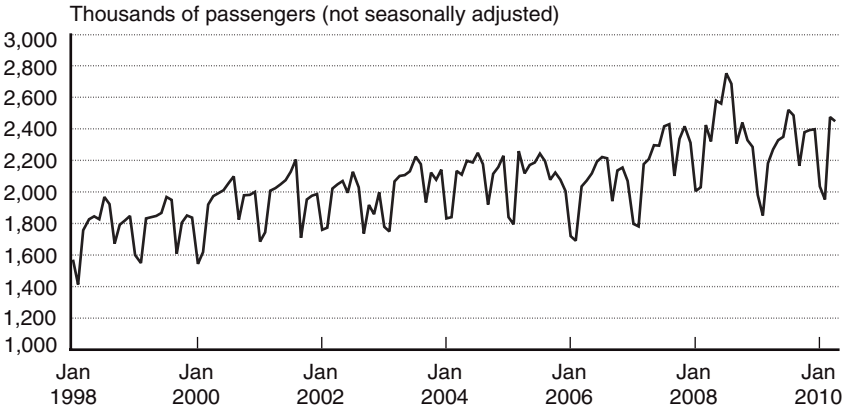
Percent

Fiscal Year	System on-time performance	Short distance (<400 miles)	Long distance (≥400 miles)
1998	79	81	59
1999	79	80	61
2000	78	82	52
2001	75	78	55
2002	77	81	46
2003	73	78	50
2004	71	75	41
2005	70	74	42
2006	68	73	30
2007	69	72	40
2008	71	74	52
2009	80	81	76

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

SOURCES: **1998–1999**: National Railroad Passenger Corporation (Amtrak), *Amtrak Annual Report* (Washington, DC: Annual Issues); **2000–2009**: Amtrak, personal communication, November 2009 as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-67, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2010.

FIGURE 2-5-3 Amtrak Ridership (Monthly): January 1998–April 2010



SOURCES: U.S. Department of Transportation, Federal Railroad Administration, Office of Safety Analysis, Overview, table 1.02, available at http://safetydata.fra.dot.gov/Officeof-Safety/ as of July 2010.

TABLE 2-5-3 Monthly Amtrak Ridership: January 2008–April 2010

	Passengers (thousands)
January 2008	2,005
February 2008	2,029
March 2008	2,424
April 2008	2,320
May 2008	2,577
June 2008	2,560
July 2008	2,750
August 2008	2,684
September 2008	2,305
October 2008	2,440
November 2008	2,326
December 2008	2,285
January 2009	1,979
February 2009	1,849
March 2009	2,180
April 2009	2,267
May 2009	2,326
June 2009	2,348
July 2009	2,520
August 2009	2,485
September 2009	2,164
October 2009	2,378
November 2009	2,390
December 2009	2,395
January 2010	2,033
February 2010	1,951
March 2010	2,474
April 2010	2,446

NOTES: Amtrak serves more than 500 stations in 46 states and operates over a network of more than 21,000 track miles. Ridership is highly seasonal, July and August are the peak ridership months. In 2000, Amtrak introduced a high-speed rail service in the northeast United States, which helped increase ridership.
SOURCE: U.S. Department of Transportation, Federal Railroad Administration, Office of Safety Analysis, *Overview*, table 1.02, available at http://safetydata.fra.dot.gov/OfficeofSafety/ as of July 2010.

TABLE 2-5-4 Amtrak Ridership: 1999–2009
Thousands of revenue passengers

	Passengers (thousands)
1999	21,544
2000	22,985
2001	23,525
2002	23,321
2003	24,595
2004	25,215
2005	25,076
2006	24,548
2007	26,551
2008	28,705
2009	27,279

SOURCE: U.S. Department of Transportation, Federal Railroad Administration, Office of Safety, *Operational Data Tables*, table 1.02, available at http://safetydata.fra.dot.gov/officeofsafety/ as of July 2010.

TABLE 2-5-5 Average Loaded U.S. Railcar Weight: 1999–2009

	Tons per carload
1999	63.4
2000	62.6
2001	64.0
2002	63.3
2003	62.3
2004	61.3
2005	61.0
2006	60.9
2007	61.7
2008	63.1

NOTE: *Average loaded U.S. railcar weight* is total tons divided by total carloads transported.

SOURCE: Association of American Railroads, *Railroad Facts 2009* (Washington, DC: 2008), p. 37.

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

Table 2-5-6 Rail Freight Average Speeds, Revenue Ton-Miles, and Terminal Dwell Times: 3rd quarter 1999–4th quarter 2008

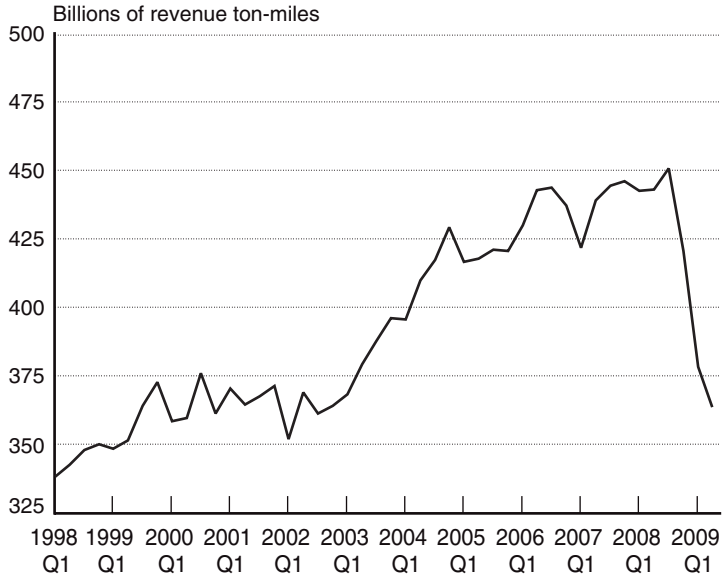
Quarter	Average line-haul speed (mph)	Revenue ton-miles (billions)	Average terminal dwell time (hours)
1999 Q3	23.0	364.0	U
1999 Q4	23.2	372.8	U
2000 Q1	24.2	364.1	U
2000 Q2	23.9	359.7	U
2000 Q3	23.7	376.0	U
2000 Q4	23.9	361.3	U
2001 Q1	24.4	370.4	U
2001 Q2	23.9	364.6	U
2001 Q3	24.3	367.7	U
2001 Q4	24.8	371.3	U
2002 Q1	25.4	364.9	U
2002 Q2	25.5	369.1	U
2002 Q3	24.9	371.9	U
2002 Q4	25.1	376.7	U
2003 Q1	24.7	368.4	U
2003 Q2	24.2	379.2	U
2003 Q3	23.7	387.6	U
2003 Q4	23.6	381.8	U
2004 Q1	23.2	395.6	U
2004 Q2	22.3	409.8	27.0
2004 Q3	22.4	417.3	26.4
2004 Q4	22.1	429.3	27.3
2005 Q1	21.7	416.7	27.5
2005 Q2	21.6	417.8	26.3
2005 Q3	21.7	421.0	25.9
2005 Q4	20.8	420.6	27.2
2006 Q1	21.4	429.8	25.9
2006 Q2	21.4	442.7	24.6
2006 Q3	21.7	443.6	23.9
2006 Q4	22.1	467.2	24.0
2007 Q1	21.8	421.8	24.3
2007 Q2	21.6	432.0	23.1
2007 Q3	22.0	444.3	23.4
2007 Q4	22.5	446.0	23.8
2008 Q1	22.4	442.5	24.0
2008 Q2	22.2	443.0	23.2
2008 Q3	22.7	450.6	23.2
2008 Q4	23.9	420.5	23.6

KEY: U = Data are unavailable.

NOTES: *Average line-haul speed* data are preliminary for 2005 Q1 through 2008 Q4. Canadian National Railway Co. (CN) data are excluded from average line-haul speed and average terminal dwell time, but not from revenue ton-miles.

SOURCES: **Average line-haul speed and terminal dwell time**: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, calculations using data reported by Class I railroads to the Association of American Railroads for posting at http://www.railroadpm.org/, and Surface Transportation Board (STB), *Statistics of Class I Railroads in the United States*, table 8, available at http://www.stb.dot.gov/ as of November 2009; **Revenue ton-miles**: STB, *Quarterly Selected Earnings Report*, available at http://www.stb.dot.gov/ as of November 2009.

FIGURE 2-5-7 Rail Freight Revenue Ton-Miles: 1st quarter 1998–2nd quarter 2009
Quarterly data, not seasonally adjusted



SOURCES: Surface Transportation Board, Office of Economics, Environmental Analysis and Administration, *Quarterly Selected Earnings Report*, available at http://www.stb.dot.gov/ as of October 2009.

TABLE 2-5-7 Rail Freight Revenue Ton-Miles: 1st quarter 2008–2nd quarter 2009

	Revenue ton-miles (billions)
2008 Q1	442.5
2008 Q2	443.0
2008 Q3	450.6
2008 Q4	420.5
2009 Q1	378.3
2009 Q2	363.7

SOURCE: Surface Transportation Board, Office of Economics, Environmental Analysis and Administration, *Quarterly Selected Earnings Report*, available at http://www.stb.dot.gov/ as of October 2009.

Transit

TABLE 2-6-1 Interruptions of Service by Type of Transit: 1998–2000 & 2001–2008

Number of interruptions per 100,000 revenue vehicle-miles

	Motor bus	Light rail	Heavy rail	Commuter rail	Demand response
1998	38	15	7	3	5
1999	38	17	6	3	5
2000	37	15	6	3	5
2001	27	14	3	2	4
2002	24	14	5	1	3
2003	22	14	3	1	4
2004	21	14	4	1	3
2005	22	15	5	1	3
2006	23	14	8	1	3
2007	22	14	7	1	3
2008	22	12	6	0	3

NOTES: Data from 1998-2000 and 2001-2008 are not comparable due to a methodology change. *Interruptions of service* include major and minor mechanical failures. Since 2001, if the vehicle operator was able to fix the problem and return the vehicle to service without assistance, the incident has not been considered an interruption of service.

See glossary for definitions of service types.

SOURCES: U.S. Department of Transportation (USDOT), Research and Innovative Technology Administration, Bureau of Transportation Statistics, calculations based on various data; **Revenue vehicle-miles**: USDOT, Federal Transit Administration (FTA), National Transit Database, *National Transit Summaries and Trends* (Washington, D.C.: Annual Issues), available at http://www.ntdprogram.gov/ as of January 2010; **Interruptions of service**: USDOT, FTA, *National Transit Database*, Data Tables, Revenue Vehicle Maintenance Performance, tables 15 and 16 (Washington, D.C.: Annual Issues), available at http://www.ntdprogram.gov/ntdprogram/data.htm as of January 2010.

TABLE 2-6-2 Top 20 Transit Agencies by Unlinked Passenger Trips: Fiscal Year 2008

Rank	Agency	Unlinked trips (thousands)
1	MTA New York City Transit (NYCT)	3,336,387
2	Chicago Transit Authority (CTA)	526,336
3	Los Angeles County Metropolitan Trip Authority (LACMTA)	476,032
4	Washington Metropolitan Area Transit Authority (WMATA)	425,237
5	Massachusetts Bay Transportation Authority (MBTA)	370,719
6	Southeastern Pennsylvania Transportation Authority (SEPTA)	340,942
7	New Jersey Transit Corporation (NJTransit)	277,154
8	San Francisco Municipal Railway (MUNI)	221,213
9	Metropolitan Atlanta Rapid Transit Authority (MARTA)	150,913
10	King County Department of Transportation (King County Metro)	122,976
11	MTA Bus Company (MTABUS)	121,028
12	Maryland Transit Administration (MTA)	117,664
13	San Francisco Bay Area Rapid Transit District (BART)	115,228
14	Miami-Dade Transit (MDT)	114,802
15	Tri-County Metropolitan Transportation District of Oregon (TriMet)	104,169
16	Denver Regional Transportation District (RTD)	101,176
17	Metropolitan Transit Authority of Harris County, Texas (Metro)	100,277
18	MTA Long Island Railroad (MTA LIRR)	99,599
19	San Diego Metropolitan Transit System (MTS)	87,175
20	Port Authority Trans-Hudson Corporation (PATH)	85,405
	Total, top 20 agencies	**7,294,433**
	Total, all agencies	**10,256,682**
	Top 20 agencies, percent of all agencies	**71.1%**

NOTES: Details may not add to total due to rounding. According to the National Transit Database (NTD), an *unlinked passenger trip* represents a passenger who boards a public transportation vehicle. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination. A *linked trip* is a trip from origin to destination on the transit system. Even if a person must make several transfers during a journey, the trip is counted as one linked trip on the system.

SOURCE: U.S. Department of Transportation, Federal Transit Administration (FTA), *National Transit Database*, *Data Tables*, Fare per Passenger and Recovery Ratio, table 26 (Washington, D.C.: Annual Issues), available at http://www.ntdprogram.gov/ntdprogram/data.htm as of January 2010.

TABLE 2-6-3 Transit Passenger-Miles by Type of Service: 1998–2008
Millions

		Transit rail			Demand		
	Bus	Heavy	Commuter	Light	response	Other	Total
1998	17,874	12,284	8,702	1,115	513	1,116	41,605
1999	18,684	12,902	8,764	1,190	559	1,180	43,279
2000	18,807	13,844	9,400	1,339	588	1,122	45,100
2001	19,583	14,178	9,544	1,427	626	1,150	46,508
2002	19,679	13,663	9,500	1,432	651	1,172	46,096
2003	19,179	13,606	9,555	1,476	689	1,172	45,677
2004	18,921	14,354	9,715	1,576	704	1,275	46,546
2005	19,425	14,418	9,470	1,700	738	1,374	47,125
2006	20,390	14,721	10,359	1,866	753	1,415	49,504
2007	20,388	16,138	11,137	1,930	778	1,502	51,873
2008	21,198	16,850	11,032	2,081	844	1,707	53,712

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

Bus and *demand response* in these tables refer to a mode of service, not to a specific vehicle type. Bus service is a variety of roadway services that share the characteristic of being entirely or partially fixed routes. Bus service includes local service, express service, subscription service, diversionary route service, loop service, and other types. Although bus service is normally provided by buses, it can be provided by smaller vehicles that may be considered large vans.

Data in this report are not comparable to the data published in the previous editions of the report due to different data sources used.

SOURCE: U.S. Department of Transportation, Federal Transit Administration, *National Transit Database, Data Tables*, Transit Operating Statistics: Service Supplied and Consumed, table 19, available at http://www.ntdprogram.gov/ntdprogram/data.htm as of March 2010 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-37, available at http://www.bts.gov/publications/national_transportation_statistics/ as of March 2010.

TABLE 2-6-4 Transit Unlinked Trips by Type of Service: 1998–2008
Millions of unlinked trips

		Transit rail				
	Bus	Heavy	Commuter	Light	Other	Total
1998	4,754	2,393	381	273	315	8,115
1999	4,992	2,521	396	289	326	8,523
2000	5,040	2,632	413	316	319	8,720
2001	5,215	2,728	418	334	312	9,008
2002	5,269	2,688	414	337	311	9,018
2003	5,146	2,667	410	338	315	8,876
2004	5,094	2,748	414	350	331	8,937
2005	5,226	2,808	423	381	338	9,176
2006	5,274	2,927	441	407	331	9,379
2007	5,278	3,460	458	418	334	9,948
2008	5,448	3,547	471	451	339	10,257

NOTES: *Other* includes automated guideway, cable car, vanpool, demand response, ferryboats, inclined planes, monorail, jitney, publico, Alaska Railroad, aerial tramway, and trolley buses.

Details may not add to totals due to rounding.

See glossary for definitions of service types.

SOURCE: U.S. Department of Transportation, Federal Transit Administration, *National Transit Database*, *Data Tables*,Transit Operating Statistics: Service Supplied and Consumed, table 19 (Washington, D.C.: Annual Issues), available at http://www.ntdprogram.gov/ntdprogram/data.htm as of January 2010.

Chapter

3

State of Transportation Statistics

Information Quality

The U.S. Department of Transportation, Research and Innovative Technology Administration (RITA), Bureau of Transportation Statistics's (BTS's) legislative mandate requires annual submission of the *Transportation Statistics Annual Report* to the President and Congress. The report must include data and information on topics identified in its legislative mandate and presented in Section 1, document the methods utilized to obtain the report's statistical information as well as ensure its quality, and make recommendations for improving transportation statistical information. The latter two items are the subject of this *State of Transportation Statistics.*

Information Quality

BTS obtained the data in this report from many sources, including other Federal agencies, private industry, and trade associations. Data based on surveys are subject to sampling variability, and data from all sources may be subject to omissions and errors in reporting, recording, and processing. The sources cited for each table often provide additional information about the definitions, methodologies, and statistical reliability.

Under Office of Management and Budget (OMB) directives, data collected by Federal agencies are subject to guidelines, policies, and practices that pertain to disseminating statistics to the public.

Because Federal agencies are subject to these guidelines, BTS relies heavily on Federal sources for the data contained within this report. Federal agencies, both within and outside of the U.S. Department of Transportation (USDOT), collect, compile, analyze and publish transportation data. A partial list of these organizations is included in box A. In some cases, these agencies compile and disseminate data submitted or reported by state and local governments, and/or private industry on transportation operations, planning, financing, or management. Furthermore, some Federal agencies conduct surveys or otherwise directly collect data on specific matters, either through their own auspices or through partnerships with other entities. In addition, other agencies produce data or information relevant to transportation, even though transportation is not the primary purpose.

OMB chairs an interagency statistical policy committee, comprised of the heads of 13 statistical agencies in the Federal Government, including BTS. This group develops and distributes these statistical policies and guidelines for best practices to these and other agencies involved in statistics.

In response to its legislative mandates, BTS has developed guidelines for statistical practices in the transportation field. Specific topics covered include planning data systems, collecting data, processing data, dissemination of information, and evaluation of information quality. These guidelines apply to all information, including compilations containing data from other sources, appearing in BTS publications. Box B discusses various Federal statistical quality manuals and guidelines pertinent to transportation data.

Agencies also often have specific requirements and guidelines in addition to government-wide guidance. For example, they may issue guidelines for data reporting by state agencies, localities,

and transportation providers. Such guidance may contribute to greater uniformity, comparability, and quality of the resulting data even though it comes from multiple providers.

In many cases, source agencies document the methods used in collecting, compiling, and assuring the quality of the data they produce. In many cases, the cited agencies publish source and accuracy statements. The BTS website for *National Transportation Statistics*, a web based companion document to this report, summarizes much of this information with respect to particular data series (*National Transportation Statistics*, Appendix E—Data Source and Accuracy Statements, http://www.bts.gov/publications/national_transportation_statistics/).

Box A

Selected Federal Agencies that Collect or Compile Transportation Data

Intermodal/Multimodal Data (including Economic Indicators)

- Bureau of Economic Analysis, USDOC
- Bureau of Labor Statistics, USDOL
- Bureau of Transportation Statistics (Research and Innovative Technology Administration), USDOT
- Federal Highway Administration, USDOT
- Customs and Border Protection, USDHS
- U.S. Census Bureau, USDOC

Aviation Data

- Bureau of Transportation Statistics (Research and Innovative Technology Administration), USDOT
- Federal Aviation Administration, USDOT
- Office of Aviation and International Affairs, USDOT
- National Transportation Safety Board

Hazardous Materials (HAZMAT) Data

- Pipeline and Hazardous Materials Safety Administration, USDOT
- U.S. Census Bureau, USDOC
- Bureau of Transportation Statistics (Research and Innovative Technology Administration), USDOT

Highway Data

- Federal Highway Administration, USDOT
- Federal Motor Carrier Safety Administration, USDOT
- Federal Transit Administration, USDOT
- National Highway Traffic Safety Administration, USDOT

Maritime Data

- Maritime Administration, USDOT
- Federal Maritime Commission
- Saint Lawrence Seaway Development Corporation, USDOT
- U.S. Army Corps of Engineers, USACE
- U.S. Coast Guard, USDHS

Pipeline Data

- Pipeline and Hazardous Materials Safety Administration, USDOT

Railroad Data

- Federal Railroad Administration, USDOT
- Surface Transportation Board, USDOT

Transit Data

- Federal Transit Administration, USDOT

Other Federal Agencies Collecting Transportation-Related Data

- Agricultural Marketing Service, USDA
- Environmental Protection Agency
- Energy Information Administration, USDOE

KEY: USACE—U.S. Army Corp of Engineers; USDA—U.S. Department of Agriculture; USDHS—U.S. Department of Homeland Security; USDOC—U.S. Department of Commerce; USDOE—U.S. Department of Energy; USDOL—U.S. Department of Labor; USDOT—U.S. Department of Transportation

Box B

Information Quality Guidelines for Federal Transportation Data

As a Federal statistical agency, the Bureau of Transportation Statistics (BTS) has its own statistical standards and participates with other agencies to improve statistical information quality. Under an array of guidelines, other Federal agencies collect, compile, and disseminate statistical data. The following are key guidelines and documents providing guidance on the quality of statistical information:

- *BTS Statistical Standards Manual*—covers all aspects of RITA/BTS statistical practice: (http://www.bts.gov/programs/statistical_policy_and_research/bts_statistical_standards_manual/index.html).
- *Guide to Good Statistical Practice in the Transportation Field*—includes the USDOT guidelines for statistical information and additional BTS guidance for good statistical practice: (http://www.bts.gov/publications/guide_to_good_statistical_practice_in_the_transportation_field/).
- *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies*—Federal Register Notice, Vol. 67, No. 36, Feb. 22, 2002, Part IX – Office of Management and Budget: (http://www.bts.gov/publications/federal_register_notice/pdf/volume_67_number_36.pdf).
- *Guidelines of the Federal Statistical Organizations*—an approach to guidelines for statistical information adopted by the Interagency Council on Statistical Policy (ICSP): (http://www.bts.gov/publications/federal_register_notice/pdf/volume_67_number_107.pdf).
- *DOT Report for Implementing OMB's Information Dissemination Quality Guidelines* —is the USDOT implementation of the Office of Management and Budget (OMB) information quality guidelines and correction procedures. The USDOT guidelines permit its agencies to issue their own guidelines, if these guidelines are consistent with the overall USDOT guidelines: (http://docketsinfo.dot.gov/ombfinal092502.pdf).
- *Standards and Guidelines for Statistical Surveys*—adopted September 2006: (http://www.whitehouse.gov/omb/inforeg/statpolicy/standards_stat_surveys.pdf).
- *Title V—Confidential Information Protection and Statistical Efficiency Act of 2002*—effective Dec. 17, 2002: (http://www.whitehouse.gov/omb/inforeg/cipsea/cipsea_statute.pdf).

On Mar. 7, 2008, OMB released Statistical Policy Directive No. 4: Release and Dissemination of Statistical Products Produced by Federal Statistical Agencies: (http://www.whitehouse.gov/omb/fedreg/2008/030708_directive-4.pdf)

Improving Data Quality

Improving Transportation Statistics

The Research and Innovative Technology Administration (RITA), Bureau of Transportation Statistics's (BTS's) program offices have taken steps to close data gaps or improve the ways in which they collect, compile, analyze, and publish data.

TransBorder Freight Data

The North American TransBorder Freight Data provide United States – Canada and United States – Mexico merchandise trade data by commodity type, mode of transportation (rail, truck, pipeline, water, air, and other), and geographic detail for U.S. exports to and imports from Canada and Mexico. These data are an extract of the official foreign trade statistics collected by the U.S. Bureau of the Census. Data are available dating back to April 1993. The data are available via the Internet at http://www.bts.gov/programs/international/transborder/.

BTS made two major changes to the TransBorder Freight Data Program in 2007. First, beginning in January 2007, the program added a new combination of U.S. port entry/exit and commodity data (at the two-digit Harmonized Tariff System level), which provides users with details on North American freight transportation not previously available.

Also in 2007, in response to customer feedback and advances in technology, the TransBorder Freight data interface was significantly improved. BTS developed a powerful online data access tool that now provides fast queries and accurate analytical results to the user.

In 2009, TransBorder Freight Data web site added pie charts and interactive line charts. In 2010, BTS will add previously unavailable North American transshipment data.

The TransBorder query system produces:

- Detailed Statistics – that provides users with the ability to make queries of the following data elements:
    - U.S. State;
    - Trading partner;
    - Customs port;
    - Mode of transportation;
    - Value or Weight;
    - Imports, exports, or total trade;
    - Commodity (at the two-digit Harmonized Tariff System level);
    - Year; and
    - Month.

- Fast Facts – provides users with fast and simple annual and monthly trade and transportation facts such as the top 10 ports, top U.S. States, and top commodities in terms of trade value or weight for different modes of transportation.

Commodity Flow Survey

BTS released the preliminary estimates from the Commodity Flow Survey (CFS) in December 2008 and continued to process the data in 2009. Based on the latest economic census data, BTS made additional adjustments. Both BTS and the U.S. Census Bureau released the final data on their websites on Dec. 22, 2009. All 2007 CFS data products, as well as those from previous surveys, are available via the Internet at http://www.bts.gov/publications/commodity_flow_survey/ and via the Census Bureau's American FactFinder (AFF)—http://factfinder.census.gov/. In addition to a comprehensive set of data tables, the AFF also now allows data users to generate and produce quick reports and thematic maps.

Freight Analysis Framework

In 2010, the Federal Highway Administration's (FHWA) Office of Freight Management and Operations will update the Freight Analysis Framework to version 3 (FAF3) making use of current freight statistics and enhanced methodologies. The Freight Analysis Framework (FAF) estimates the total volume of freight flows and related freight transportation activities among states and major metropolitan areas. FAF also forecasts pressures of future freight flows on the existing transportation network by estimating changes in those flows and activities based on shifts in economic conditions and the availability of transportation facilities, among other factors.

FHWA has continually updated and improved FAF to provide the most accurate and current national freight statistics for Federal policy evaluation, the development of national investment and operations strategies, and the starting point for understanding freight activities at State and metropolitan levels. The updated FAF3 will be based, in large part, on data from the recently published 2007 CFS, and integrate data from a variety of other public sources to fill gaps from industries not covered by the survey. Improvements are intended to balance accuracy, completeness, and transparency to make relevant freight transportation data available to the national transportation community.

Scheduled for release in summer 2010, FAF3 will provide data and national maps for 2007. Additional data, including forecasts from 2015 through 2040, recalculated 2002 and 1997 data, annual provisional estimates, and added maps will be released beginning in fall 2010 through early 2011.

When completed, FHWA will provide improved access to FAF data and documentation at http://www.ops.fhwa.dot.gov/freight/freight_analysis/faf.

Vehicle Inventory and Use Survey

The Vehicle Inventory and Use Survey (VIUS) delivers critical information for highway cost allocation studies, air quality and greenhouse gas (GHG) emission models, and freight analysis

work. Data from VIUS contributes directly to the Federal Highway Administration (FHWA), Freight Analysis Framework (FAF) by providing an essential link between tonnages moved among regions and truck travel on the highway network.

Beyond the uses listed above, the survey provides data on the physical and operational characteristics of the Nation's private and commercial truck fleet. Its primary goal has been to produce national and state-level estimates of the total number of trucks. The VIUS was first conducted in 1963 and has historically been carried out by the U.S. Census Bureau every 5 years as part of the Economic Census.

The FHWA is currently leading a design study to develop a blueprint for a future VIUS program that will include a set of vehicle and geographical characteristics historically part of the VIUS because the FHWA canceled the 2007 edition of survey due to funding considerations. This study will provide specifications for a range of options should funds for reinstating the survey become available in the future.

Airline Information

The Office of Airline Information (OAI) receives data directly from carriers (airlines) relating to passengers flown, financial status, on-time performance, and the origin-destination ticket sample data including fares charged. OAI then makes this data available to its customers in three ways:

1. The TranStats Web Site,
2. Easy to use tables on the BTS Web Site, and
3. For purchase on CD.

Since TSAR 2008, there have been several new developments and/or trends in aviation data.

Airline On-Time Performance Data have been enhanced with the addition of several new data fields adding detail where flights experienced long ground times (tarmac delays). The new data fields add detail to 1) flights returning to a gate then redeparting, 2) flights diverted to an alternate airport, and 3) flights cancelled after lengthy tarmac delays.

Airline Financial Data has been improved by standardizing the way ancillary fees are reported. With the rapid rise in fuel costs in 2008, airlines began charging fees for services formerly included in the ticketed fare. Airlines have now been directed to report these ancillary fees in a uniform way.

Easy to Use Web Tables have been introduced to the BTS website since TSAR was last published. Eight of the most commonly used historic airline data tables are now available, each with a single click of the mouse.

Full Time and Part Time Airline Employment Data by month are now available on the BTS website dating back to 1990.

Tarmac Delays

In October 2008, BTS began collecting more detailed data on airline tarmac delays. The new data reports resulted from several highly publicized incidents of long tarmac times in late 2006 and early 2007. It was recognized that BTS's airline on-time data captured tarmac times only for flights that departed the gate at the origin airport and flew directly to the scheduled destination. These tarmac times are known as taxi-outs (gate departure to wheels-off) and taxi-ins (wheels-on to gate arrival).

BTS airline on-time data lacked any tarmac times for canceled flights. The data was also missing details for diverted flights at diversion airports and at the scheduled destination if the flight eventually reached there. In addition, airlines did not follow uniform procedures in reporting multiple gate departures. A final rule and a technical directive corrected these details in the data.

Airline On–Time Performance Summary tables are available at http://www.bts.gov/programs/airline_information/taxi_out_and_other_tarmac_times/.

Ancillary Fees

Airlines facing rising fuel costs in early 2008 began seeking additional sources of revenue. In the second quarter of 2008, many airlines began charging passengers for services that they had previously provided free. These ancillary fees include, for example, baggage fees, seating assignment fees, rebooking fees, cancellation fees, on-board sale of food, drink, pillows, blankets, entertainment, etc. These are fees not included on the passenger's paper/electronic ticket.

The charging of ancillary fees produced increased interest in the amount that the airlines were receiving from these charges. To ensure that airlines reported the fee revenue correctly, BTS issued *Technical Directive Number 289*, http://www.bts.gov/programs/airline_information/accounting_and_reporting_directives/number_289.html, on Feb. 25, 2009 "to assist carriers with reporting their ancillary revenues in a like manner."

Baggage fees (Schedule P-1.2, account 3906.2) and Reservation Cancellation and Rebooking fees (Schedule P-1.2, account 3919.1) are the only fees reported separately. Other fees are to be included in general categories such as Transport-Related Revenues or Miscellaneous Operating Revenue.

After receiving the directive, several airlines revised their filings for 2008. Others indicated they had filed incorrectly, but future reports would be correct.

A complete listing of all ancillary fees and how they should be reported is found in the actual directive at: http://www.bts.gov/programs/airline_information/accounting_and_reporting_directives/number_289.html.

Schedule P-1.2 is available at http://www.transtats.bts.gov/Fields.asp?Table_ID=295.

Easy-to-Use Web Tables

In early 2009, BTS simplified its website, http://www.bts.gov, for retrieving frequently requested airline data. Users can now go to eight airline reports with a single click. Users can download each report with historical data going back to, at least, the year 2000. The eight reports are:

1. passengers,
2. flights,
3. revenue passenger-miles,
4. available seat-miles,
5. load factor,
6. operating profit/loss,
7. operating revenue, and
8. freight.

The first five tables offer numbers for U.S. and international airlines serving the United States. The user can choose from monthly and yearly totals for all airlines, U.S. airlines, and individual airlines. BTS also provides the date by origin airport.

The last three tables offer data for U.S. airlines only with no airport-specific numbers.

Full-Time and Part-Time Employment Data

BTS made available for the first time in 2009 full-time and part-time airline employment data since 1990. On the BTS website, the numbers are available on a new employment application, http://www.bts.gov/airline_employment/src/index.xml, that allows the user to search for employment numbers for any month since January 1990. Previously, the BTS website provided only year-end tables in Excel format.

Airlines that operate at least one aircraft with the capacity to carry combined passengers, cargo and fuel of 18,000 pounds— the payload factor—must report monthly full-time and part-time employment statistics to BTS.

Maritime Data

In October 2008, the U.S. Department of Transportation's Maritime Administration (MARAD) launched MarView, http://www.marview.gov/, a web-based Marine Transportation System (MTS) information system. MARAD grants access to MarView through a free subscription. MarView provides access to more than 2,500 links to MTS-related data sources, including information and statistics on Intermodal freight transportation, trained and licensed mariners, ports

and a terminals, waterborne cargo and passenger movements, and domestic and foreign shipbuilding and shipyards. In addition, MarView provides real-time vessel tracking via Automated Identification System and Voluntary Observation Ships.

The interagency Committee on the Marine Transportation System (CMTS) continues to maintain the MTS Data Inventory, http://marapps.dot.gov/mts/, which currently contains about 150 links to marine transportation-related data and information that Federal agencies either produce or use. In December 2008, the CMTS/Communications Team published a MTS Fact Sheet, http://www.cmts.gov/, that highlights select information on the MTS. In addition, the circular provides a comprehensive list of cited references for the reader's convenience.

In June 2009, the Bureau of Transportation Statistics published *America's Container Ports: Transporting Goods from Here to There*, which complimented a previous edition of the report published in March 2007. The latest report updates the trends since 1995 in container volumes handled by the Nation's seaports. More specifically, it compares maritime container volumes to truck and rail as well as discusses the impact of the recent U.S. and global economic downturn on U.S. container traffic, shifts in the vessel strings, vessel calls and port capacity, and the rankings of U.S. ports among the world's top ports. In addition, the report provides brief snapshots on landside access at U.S. container ports, port security initiatives, and maritime-related environmental issues.

National Census of Ferry Operators

In accordance with Section 1801(e) of the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)*, BTS established and will maintain a national ferry database containing information on ferry routes, vessels, passengers and vehicles carried, funding sources, and other operational details.

The National Census of Ferry Operators (NCFO) database is available via the Internet at http://www.bts.gov. The NCFO database is a collection of summary tables that provide operational ferry data from a nationwide census of ferry operators conducted in 2000, 2006, and 2008. BTS collects numerous detailed data elements describing the services that ferry operators provide as part of this effort. The NCFO database also contains data from other sources of ferry data such as the U.S. Coast Guard and the Army Corps of Engineers. The NCFO utilizes a relational database throughout the data collection and processing that provides for the reporting of the information at various levels, such as by operator, route segment, terminal, or vessel.

The database of existing ferry operations includes the United States and its possessions, encompassing the 50 states, Puerto Rico, the U.S. Virgin Islands, and the Commonwealth of the Northern Mariana Islands. In addition to ferry operators providing domestic service within the United States and among its possessions, foreign operators providing international services to or from at least one U.S. terminal are also included.

Certain data were collected in the 2008 NCFO that were not collected in previous years. This includes information on whether specific ferry vessels are in service; carry passengers, freight, or

both; which vessel normally sails a trip segment; and how many trips the vessel makes in 1 day. In addition, the 2008 NCFO asked operators to select the proximity to other transit modes and to provide information on other businesses operating at their terminals. This additional information will enhance the ability to perform multiple imputation of missing passenger-boarding data and will provide more detail on interconnectivity with other transit modes. In 2010, BTS plans to release a summary report based on the 2008 survey on its website. A summary report of the 2006 survey findings is available at http://www.bts.gov/publications/bts_special_report/.

BTS will conduct the next the NCFO in 2010. BTS is working with the Maritime Security Program of the U.S. Department of Homeland Security to include questions on security screening procedures used by terminal and ferry operators.

Intermodal Passenger Connectivity Database

The Intermodal Passenger Connectivity Database (IPCD) offers data on the scheduled public transportation modes serving individual passenger transportation terminals in the United States. BTS developed this database to serve as a baseline measurement of the degree of connectivity in the U.S. passenger transportation system. Since the passage of the Intermodal Surface Transportation Act (ISTEA) in 1991, all USDOT authorizing legislation has encouraged the development of Intermodal links. Therefore, establishment of a baseline measurement for passenger Intermodal connectivity will provide one way to measure U.S. progress.

BTS is compiling the data in phases, by mode, for the IPCD. Through 2009, the database includes information on 1,494 passenger terminals—527 intercity rail stations, 671 scheduled service airline airports, and 296 ferry terminals. Data collection is underway for approximately 1,100-commuter rail stations, which will be the next mode added to the database during 2010[1]. Data for heavy rail (subway), light rail (streetcar), and intercity bus stations will complete the database in future years.

BTS has been collecting the data on modes serving each terminal from numerous public sources including databases at the USDOT, published brochures and timetables from carriers and transit agencies, and information from a range of transportation websites. These databases are available via the Internet for downloading as spreadsheets at http://www.transtats.bts.gov/. BTS has issued *Special Reports* using this data examining the degree of connectivity at intercity rail stations, airports, and ferry terminals available at http://www.bts.gov/publications/bts_special_report/.

The Passenger Intermodal Connectivity Database includes the following categories of data for each terminal record:

- terminal name, address, zip code, and metropolitan area status;
- latitude and longitude;

[1] In some locations, commuter rail systems use the same right-of-way and stations as the intercity rail system (Amtrak and the Alaska Railroad). As a result, some stations served by commuter rail are already included in the database since intercity rail serves them.

- number of modes serving;
- status of service for ferry (intercity and transit), bus (intercity, transit, code share/supplemental), rail (intercity, commuter, heavy rail, and light rail), and air modes;
- terminal website; and
- data sources.

Distracted Driving

The U.S. Department of Transportation sponsored a 2-day Distracted Driving Summit in Washington, DC, where Transportation Secretary Ray LaHood challenged the more than 250 attendees to help end this unsafe practice. The summit highlighted the growing dangers of distractions behind the wheel. Distracted, or inattentive, drivers caused an estimated 6,000 fatalities and more than half a million injures in 2008.

The summit addressed distracted driving for all surface modes of transportation, including rail, transit, commercial trucks, and passenger vehicles. More specifically, the discussions covered the extent and impact of distracted driving, current research, regulations, and best practices. In response to the summit, President Obama signed Executive Order 13513 *Federal Leadership on Reducing Text Messaging While Driving*.

For additional information on distracted driving, please visit http://www.distraction.gov/, which is a newly launched Internet web site by the National Highway Traffic Safety Administration of the U.S. Department of Transportation.

National Household Travel Survey

The Federal Highway Administration (FHWA), Office of Highway Policy and Information, conducted the National Household Travel Survey (NHTS) in 2008–2009. It is the foremost official national source of information on travel by the American public. Since 1969, the NHTS has provided data on travel demand and travel behavior by all modes, purposes, distances, travel times, occupancy and a host of other travel data. In addition to estimates of demand, NHTS provides an important contribution to understanding transportation issues of congestion, safety, highway finance, economic impacts, air quality, and fuel use. The study also contributes to the understanding of social travel trends that affect measurements for transportation modeling, policy, and program evaluation. The 2008 NHTS includes additional information on the flexibility of work schedules, telecommuting, home deliveries from Internet shopping, hybrid and alternative fuel vehicles, commercial licensed vehicles, interstate and toll use, disabilities affecting mobility, and schoolchildren travel. With 40 years of data, the NHTS adds a wealth of information to help understand the complex nature of travel behavior.

The NHTS is the largest travel survey in the world. The study encompasses a national and add-on sample, which combined yields data from 150,000 households. The national component

covers all 50 states plus the District of Columbia. It employs a dual frame sample design that includes both landline and cellular phones. The frames generate 25,000 households for landline and 1,250 for cell-only households. The second component—the NHTS Add-On Program—represents a collection of state and metropolitan supplemental samples. Twenty areas are participating in the 2008 Add-On Program, resulting in local level travel data for an additional 125,000 households.

The combined sample of over 150,000 households will integrate and optimize the national with the add-on sample

Below is a list of the twenty NHTS add-on program participants:

1. California DOT
2. Cedar Rapids Regional, IA
3. Chittenden County, VT
4. Florida DOT
5. Georgia DOT
6. Indiana DOT
7. Iowa DOT
8. New York State DOT
9. North Carolina DOT
10. Omaha, NE
11. Phoenix, AZ
12. Piedmont Regional, NC
13. South Carolina DOT
14. South Dakota DOT
15. Tennessee DOT
16. Texas DOT
17. Tucson, AZ
18. Vermont DOT
19. Virginia DOT
20. Wisconsin DOT

The NHTS launched its data collection efforts in March of 2008. In April 2009, the data collection for a full year was completed. The NHTS provides a full year of travel data to allow for day of week and month of year analyses of travel demand. The data are now available at http://www.bts.gov/programs/national_household_travel_survey/.

Geospatial Information

The RITA/BTS Geospatial Information Program is the lead program for geospatial activities within the USDOT. To emphasize this geospatial role, the USDOT appointed the BTS Program Manager as the first Geospatial Information Officer. The Program is the USDOT lead for National Spatial Data Infrastructure (NSDI). NSDI activities include representing USDOT in the Federal Geographic Data Committee (FGDC) and OMB e-Gov initiatives, such as the Geospatial Line of Business, as well as leading the development of transportation data content standards for the Geospatial One-stop.

The Geospatial Information Program has worked with USDOT partners to fill geospatial data gaps. Over the past 5 years, the Program and its partners have developed geospatial data for fixed guideway transit lines and stations, multi-modal transfer facilities, Metropolitan Planning Organization boundaries, Environmental Protection Agency non-attainment area boundaries, road bridges from the National Bridge Inventory, highway weigh-in-motion stations, highway

automated traffic recorder stations, highway hazardous materials routes, ferry routes, and alternative fueling stations. In the future, the BTS Program will collaborate with the Federal Railroad Administration to develop a geospatial database of rail bridges.

The Geospatial Information Program annually produces the National Transportation Atlas Databases (NTAD). NTAD is a set of nationwide geospatial databases of transportation facilities, transportation networks, and associated infrastructure. These datasets include geospatial information for transportation modal networks and intermodal terminals, as well as the related attribute information for these features. Each database, as prescribed by the FGDC, provides metadata documentation. These data support research, analysis, and decision-making across all modes of transportation. They are most useful at the national level, but have major applications at regional, state, and local levels throughout the transportation community. USDOT partners and other Federal government agencies provide the data used to compile NTAD. Congress originally mandated the Geospatial Information Program to produce NTAD in the Intermodal Surface Transportation Efficiency Act of 1991. The mandate has continued in each subsequent transportation authorization.

The Geospatial Information Program develops GIS applications to assist transportation analysts in performing complex geospatial analyses. For example, the GeoMiler application helps estimate freight travel by computing mileages along likely routes for the nearly 5 million freight shipments in the 2007 Commodity Flow Survey (CFS), the nation's largest survey of freight movement. The CFS uses these computations in estimating modal ton-miles of freight—a key measure for understanding the use and performance of our nation's freight transportation system. The Geospatial Information Program developed GeoMiler using current GIS technology to assign routes and calculate mileage from the origin to the destination of each shipment reported in the CFS, even when more than one mode is used. While developed for use in processing the CFS, multimodal freight movement at all geographic levels may use the tool's integrated core GIS technology and its modeling approach.

Transportation Services Index

The publication of the Transportation Services Index (TSI) in March 2004 marked the entry of the RITA/BTS into the company of Federal statistical agencies that produce a monthly U.S. economic indicator. The index consists of two measures:

- Freight transportation service, and
- Passenger transportation service

In addition, BTS creates a Total TSI by combining the Freight and Passenger transportation indexes. The most recent TSI data are available at http://www.bts.gov/xml/tsi/src/index.xml.

Currently, the Freight index consists of data from for-hire trucking, rail, inland waterways, pipelines and airfreight. The Passenger index consists of data from air, local transit and intercity rail. In addition, as part of ongoing research, BTS is exploring other modal data series to incorporate

into the TSI. BTS used economic and statistical techniques to present the output of the different transportation modes in comparable terms, while adjusting to correct for the seasonal nature of transportation. Using 2000 as a base year with an index value of 100, the Total TSI has ranged from a value of 66 at the beginning of 1990 to approximately 103 at the end of 2008, reflecting an increase of nearly 55 percent over 18 years.

BTS has undertaken research on when the Freight TSI recently turned downward, thereby serving as a leading indicator for the current recession. The recent turning point for the Freight TSI was May 2006, approximately 1 ½ years prior to the stated start of the recession in December 2007. In past research, the Freight TSI led by an average of 4 to 5 months, with a range of 1 to 7 months. Possible explanations for the long lead with the current recession include the rising cost of fuel that occurred in 2005 and 2006, and unique aspects of the current recession, such as its magnitude and the housing and financial crisis that preceded it.

In an effort to incorporate changes in methodology and data source revisions BTS had performed and released the 2009 TSI Comprehensive Bi-Annual Revision along with the July TSI release. A detailed analysis and methodology changes are available at http://www.bts.gov/xml/tsi/src/index.xml .

National Transportation Library

The National Transportation Library (NTL) plays a central role in the collection and dissemination of transportation information. Our clients include government staff at all levels (Federal, State and local), transportation professionals, and the public. NTL's mandate includes improving the ability of the transportation community to share information and knowledge and working as a national leader and partner to improve the coordination of information collection and archiving efforts.

To facilitate access to information by USDOT stakeholders, NTL provides assistance and training in locating and using transportation information and tools. Notably, NTL plays a key role in USDOT's American Recovery and Reinvestment Act (ARRA) efforts, serving as the single point of contact and communication with the public on the Department's ARRA efforts. In addition, the NTL reference staff responds to more than 2,500 information requests a month, assisting the USDOT staff and the public in locating documents and reports, statistics and other data, and performing detailed topic based research in response to specific reference requests. NTL staff is available via email, telephone, and in person at our Headquarters Branch.

To facilitate access to information through collections and tools, NTL cooperates with the Transportation Research Board (TRB) to provide the Transportation Research Information System (TRIS Online), one of the field's foremost research tools. TRB creates and maintains TRIS Online, which has the broadest coverage of transportation resources of any analytical index in the world, and NTL gives researchers and the public with free desktop access to the over 680,000 information and research resources. NTL's Digital Repository collects and makes available thousands of transportation reports, including 30,000 full text documents. Key recent acquisitions including Eno Transportation Foundation reports published beginning in 1909, the entire collec-

tion of Virginia Department of Transportation (VDOT) technical reports, and the entire contents of the ITS Joint Program Office's Electronic Digital Library (EDL). Additionally, NTL joined science.gov in 2009, a joint project of 17 Federal agencies providing access to Federal scientific and technical information. Through this forum, NTL makes transportation research and information available to an even broader audience searching for government scientific information.

Through partnerships, NTL coordinates efforts to develop standards for the collection and exchange of transportation information, as well as platforms for knowledge sharing. Originally developed by TRB, NTL maintains the Transportation Research Thesaurus, the international standard transportation taxonomy and controlled vocabulary for transportation. This tool enables efficient and robust search, retrieval, and access to TRIS Online, and other transportation information resources. Through partnership with the Federal and State DOT libraries, university transportation libraries, and the largest holder of library catalog records, the Online Computer Library Consortium (OCLC), the NTL has made available to the public the Transportation Librarians Catalog (TLCat), a one-stop portal to the catalogs of the Nation's most significant transportation libraries. The NTL leads the coordinated efforts of the regional transportation knowledge networks. Further, it has also coordinated and supported the development of two new transportation library networks. Additionally, in cooperation with other national transportation and library organizations, NTL hosts the Transportation Librarians Roundtable, a monthly forum for transportation librarians to discuss and exchange best practices on issues of mutual interest.

International Data Exchanges

The North American Transportation Statistics Online Database (NATS-OD) is an international data exchange effort between the U.S., Canada, and Mexico. A product of the NATS Interchange established in 1991, the NATS database provides three-country comparative information on transportation activity and its impact. It covers the following subject areas: country overview, transportation and the economy, transportation safety, transportation's impact on energy and the environment, domestic freight activity, North American merchandise trade, international merchandise trade, domestic passenger travel, North American passenger travel, international passenger travel, transportation infrastructure, and vehicles.

The NATS-OD highlights the importance of the various modes of transportation involved in the movement of goods between Canada, Mexico and the U.S., and presents statistics indicating the relationships among transportation, international trade, economy, security, energy and the environment. The NATS database is available at http://nats.sct.gob.mx. North America is balancing security, safety, and environmental concerns while simultaneously facilitating the free flow of people and goods. The transportation data disseminated through the Interchange is a significant resource for both the public and decision-makers to draw upon in achieving this balance.

The XXIII North American Transportation Statistics Interchange was held from June 22-24, 2009. Co-sponsored by the U.S. Census Bureau, Bureau of Transportation Statistics, and the Transportation Research Board, the NATS Interchange was held at the National Academy of Sciences' Keck Center in Washington, DC. One of the key focus areas of this year's Interchange was further developing the transportation energy and environment indicators of the NATS-OD.

Transportation Research Board

In 2009, RITA/BTS continued to support the diverse research of the National Academy of Sciences' Transportation Research Board (TRB). The TRB is the division of the National Research Council that promotes innovation and progress in transportation through research.

RITA/BTS staff participated in the TRB's 88th Annual Meeting, whose theme was *Transportation, Energy, and Climate Change*, as well as TRB workshops on such topics as Air Quality and Goods Movement and North American Freight Flows and TRB's mid-year meeting held each summer. With over 200 standing committees, TRB offers RITA/BTS the opportunity share knowledge and perspectives in transportation research, policy and practice with other transportation professionals.

Administered through the TRB and sponsored by RITA, the National Cooperative Freight Research Program (NCFRP) conducts applied freight transportation research. BTS and RITA staff supports the NCFRP by contributing to the oversight committee and assisting in choosing research projects for funding. They acted as liaisons to project panels that develops the Statements of Work, drafted and issued a Request for Proposal for funded projects, selected the contractor and provided guidance to the to the contractor during the course of the research project. NCFRP selected forty projects for funding by the end of 2009.

During 2009, RITA/BTS staff also participated in the TRB administrated cooperative research programs, including the Hazardous Materials Cooperative Research Program (HMCRP) and the National Cooperative Highway Research Program (NCHRP). They supported the HMCRP oversight committee and project panels in the same manner as the NCFRP by RITA/BTS staff, while contributions to the NCHRP involved participation in project panels.

Appendices

Appendices

Appendix A provides a snapshot of the U.S. demographics factors—such as population, labor force, and economic conditions—that influence travel patterns and goods movement. Appendix B includes a list of acronyms used throughout the report. Appendix C contains a glossary of transportation terminology contained within this report.

The Office of Geographic Information Services (OGIS) of the Research and Innovative Technology Administration's (RITA) in the Bureau of Transportation Statistics (BTS) publishes transportation spatial data and analysis. Appendix D contains select maps produced by the OGIS, covering the American Recovery and Reinvestment Act of 2009 funds obligated and projects by state, research, and development facilities funded by the U.S. Department of Transportation, air traffic hubs, North American cruise destinations and market share, and major U.S. transportation facilities.

The U.S. Department of Transportation's American Recovery and Reinvestment Act of 2009 web site, http://www.dot.gov/recovery/, highlights Recovery Act projects. The OGIS developed an interactive map for the site that allows one to view efforts within the United States and its territories as well as by USDOT operating administration, including:

- the Federal Aviation Administration (FAA),
- the Federal Highway Administration (FHWA),
- the Maritime Administration (MARAD),
- the Federal Railroad Administration (FRA),
- the Federal Transit Administration (FTA), and
- the Office of the Secretary of Transportation (OST).

Appendix E cross-references the topics specified in our legislative mandate with the figures and tables presented in this report.

Appendix A: Social and Economic Characteristics of the United States: 1998-2008

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total U.S. resident population (thousands)	**270,248**	**272,691**	**282,172**	**285,040**	**287,727**	**290,211**	**292,892**	**295,561**	**298,363**	**301,290**	**304,060**
Population by age (thousands)											
Under 18	69,903	70,199	72,356	72,599	72,830	72,979	73,166	73,378	73,594	73,859	73,942
18-24 years	25,476	26,011	27,308	27,946	28,379	28,744	29,063	29,134	29,236	29,407	29,757
25-34 years	38,743	37,936	39,840	39,643	39,638	39,634	39,747	39,817	40,020	40,401	40,932
35-44 years	44,498	44,813	45,181	45,113	44,746	44,299	43,978	43,714	43,481	43,082	42,501
45-54 years	34,575	35,802	37,995	39,369	39,960	40,776	41,575	42,432	43,210	43,872	44,372
55-64 years	22,666	23,389	24,415	25,038	26,582	27,826	29,062	30,334	31,558	32,726	33,686
65 and over	34,385	34,540	35,077	35,332	35,591	35,952	36,301	36,752	37,264	37,942	38,870
Population by sex (thousands)											
Male	132,030	133,277	138,458	139,977	141,374	142,619	144,061	145,465	146,946	148,466	149,925
Female	138,218	139,414	143,714	145,063	146,352	147,592	148,831	150,096	151,417	152,824	154,135
Population in metropolitan areas (thousands)											
Large (over 1 million)	153,143	155,905	149,761	151,826	154,560	156,109	157,724	159,323	159,828	163,596	166,361
Medium (250,000-999,999)	43,366	42,680	56,189	57,018	56,616	56,941	58,075	58,720	60,980	60,139	59,948
Small (less than 250,000)	19,908	20,022	27,557	27,508	27,761	28,259	28,038	28,306	28,095	27,880	27,882
Population in regions (thousands)											
Northeast	51,686	51,830	53,667	53,911	54,134	54,319	54,460	54,531	54,628	54,762	54,925
South	95,349	96,468	100,558	101,839	103,125	104,339	105,745	107,244	108,717	110,335	111,719
Midwest	62,951	63,242	64,493	64,806	65,058	65,299	65,566	65,785	66,048	66,313	66,561
West	60,263	61,150	63,454	64,484	65,408	66,253	67,121	68,000	68,971	69,881	70,855
Immigrants admitted (thousands)	**653**	**645**	**841**	**1,059**	**1,059**	**704**	**958**	**1,122**	**1,266**	**1,052**	**1,107**
Gross domestic product (billions of 2005 chained $)	**10,284**	**10,780**	**11,226**	**11,347**	**11,553**	**11,841**	**12,264**	**12,638**	**12,976**	**13,254**	**13,312**
Civilian labor force (thousands)	**137,673**	**139,368**	**142,583**	**143,734**	**144,863**	**146,510**	**147,401**	**149,320**	**151,428**	**153,124**	**154,287**
Participation rate of men (%)	74.9	74.7	74.8	74.4	74.1	73.5	73.3	73.3	73.5	73.2	73.0
Participation rate of women (%)	59.8	60.0	59.9	59.8	59.6	59.5	59.2	59.3	59.4	59.3	59.5
Unemployment rate (% of labor force)	4.5	4.2	4.0	4.7	5.8	6.0	5.5	5.1	4.6	4.6	5.8
Households (thousands)	**102,528**	**103,874**	**104,705**	**108,209**	**109,297**	**111,278**	**112,000**	**113,343**	**114,384**	**116,011**	**116,783**
Average size of households	**2.62**	**2.61**	**2.62**	**2.58**	**2.58**	**2.57**	**2.57**	**2.57**	**2.57**	**2.56**	**2.56**
Median household income (constant 2005 $)	**46,510**	**47,681**	**47,602**	**46,564**	**46,021**	**45,980**	**45,820**	**46,326**	**46,671**	**47,297**	**45,610**
Average household expenditures (constant 2005 $)	**42,503**	**43,345**	**43,130**	**43,576**	**44,141**	**43,326**	**44,850**	**46,409**	**46,862**	**46,736**	**45,776**

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

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

Median household income and average household expenditures are converted to constant 2005 dollars by the Bureau of Transportation Statistics using the consumer price index for Urban research series (CPI-U-RS).

Details may not add to totals due to independent rounding.

SOURCES: U.S. resident population; population by age and sex: U.S. Department of Commerce, U.S. Census Bureau, Population Estimates, National, available at http://www.census.gov/popest/estimates.php as of January 2010.

Population by metropolitan area: 1998-99: U.S. Department of Commerce, U.S. Census Bureau, Population Division, Statistical Abstract of the United States 2000 (Washington, DC: 2001), table 32 as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, National Transportation Statistics, table A, available at http://www.bts.gov/publications/national_transportation_statistics as of April 2010.

2000-08: U.S. Department of Commerce, U.S. Census Bureau, Population Division, Annual Estimates of the Population of Metropolitan and Micropolitan Statistical Areas, table 1, available at http://www.census.gov/popest/estimates.php as of January 2010.

Population by Region: 1998-99: U.S. Department of Commerce, U.S. Census Bureau, Population Division, as reported in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, National Transportation Statistics, table A, available at http://www.bts.gov/publications/national_transportation_statistics as of April 2010.

2000-08: U.S. Department of Commerce, U.S. Census Bureau, Population Division, Population Division, National and State Population Estimates, Vintage 2008 Archive, National Annual Population Estimates 2000 to 2008, available at http://www.census.gov/popest/states/NST-ann-est2008.html as of January 2010.

Immigrants Admitted: U.S. Department of Homeland Security, 2008 Yearbook of Immigration Statistics, table 1, available at http://www.dhs.gov/files/statistics/publications/yearbook.shtm as of January 2010.

Gross Domestic Product: U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts Tables, table 1.1.6, available at http://www.bea.gov/national/nipaweb/SelectTable.asp?Selected=N as of January 2010.

Civilian Labor Force, Unemployment Rate, Participation of Men and Women: U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Historical Data, table A-1, available at http://www.bls.gov/cps/cpsatabs.htm as of January 2010.

Number of households, Average size of households: U.S. Department of Commerce, U.S. Census Bureau, Families and Living Arrangements, Detailed Tables, tables AVG-1, H-2, 17 and HH-6, available at http://www.census.gov/population/www/socdemo/hh-fam.html as of January 2010.

Median household income: U.S. Department of Commerce, U.S. Census Bureau, Historical Income Data, table H-5, available at http://www.census.gov/hhes/www/income/income.html as of January 2010.

Average household expenditures: U.S Department of Labor, Bureau of Labor Statistics, Consumer Expenditure Survey, Average Annual Expenditures, All Consumer Units, available at http://www.bls.gov/data/home.htm as of January 2010.

Appendix B: List of Acronyms, Abbreviations, and Initialisms

A

AAR	Association of American Railroads
ADA	Americans with Disabilities Act
APTA	American Public Transportation Association
ATPI	Air Travel Price Index
ATTI	Air Travel Time Index
ATTVI	Air Travel Time Variability Index

B

BEA	Bureau of Economic Analysis
BLS	Bureau of Labor Statistics
BTS	Bureau of Transportation Statistics
Btu	British thermal unit

C

CAFE	Corporate Average Fuel Economy
CBP	U.S. Customs and Border Protection
CFS	Commodity Flow Survey
CO	carbon monoxide
CO_2	carbon dioxide
CPI	Consumer Price Index
CPSC	Consumer Product Safety Commission

D

DHS	U.S. Department of Homeland Security
DOC	U.S. Department of Commerce
DOE	U.S. Department of Energy
DOL	U.S. Department of Labor
DOT	U.S. Department of Transportation
dwt	deadweight tons

E

EIA	Energy Information Administration
EPA	U.S. Environmental Protection Agency

F

FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FY	fiscal year

G

GDP	Gross Domestic Product
GHG	greenhouse gas
GIS	geographic information systems
GTFS	Government Transportation Financial Statistics
GVWR	gross vehicle weight rating

H

HMIS	Hazardous Materials Information System

I

ISTEA	Intermodal Surface Transportation Efficiency Act
ITS	intelligent transportation system

M

MARAD	Maritime Administration
MFP	multifactor productivity
MISLE	Marine Information and Safety Law Enforcement
mmtc	million metric tons of carbon
mpg	miles per gallon
mph	miles per hour
MPO	metropolitan planning organization
MSA	metropolitan statistical area

N

NAICS	North American Industry Classification System
NCFO	National Census of Ferry Operators
NCFRP	National Cooperative Freight Research Program
NEI	National Emissions Inventory
NEISS	National Electronic Injury Surveillance System
NHTS	National Household Travel Survey
NHTSA	National Highway Traffic Safety Administration
NOS	Not Otherwise Specified
NO_x	nitrogen oxides
NPIAS	National Plan of Integrated Airport Systems
NTAD	National Transportation Atlas Database
NTD	National Transit Database
NTS	*National Transportation Statistics* report
NTSB	National Transportation Safety Board

O

O&D	origin and destination
OECD	Organization for Economic Cooperation and Development
OOS	out of service
OPEC	Organization of Petroleum Exporting Countries

P

PHMSA	Pipeline and Hazardous Materials Safety Administration
PM-2.5	particulate matter of 2.5 microns in diameter or smaller
PM-10	particulate matter of 10 microns in diameter or smaller
pmt	passenger-miles of travel

Q

quads	quadrillions

R

RITA	Research and Innovative Technology Administration
rpm	revenue passenger-mile

S

SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act—A Legacy for Users
SCTG	Standard Classification of Transported Goods
SE	standard error
SIC S	tandard Industrial Classification
STOL	short take-off and landing
SUV	sport utility vehicle

T

TEA-21	Transportation Equity Act for the 21st Century
TEU	20-foot equivalent unit
TgCO2Eq	teragrams of carbon dioxide equivalent
TSAR	*Transportation Statistics Annual Report*
TRB	Transportation Research Board
TSI	Transportation Services Index
TTI	Texas Transportation Institute
TTI	Travel Time Index
TWIC	Transportation Worker Identification Credential

U

USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USDOT	U.S. Department of Transportation

V

VIUS	Vehicle Inventory and Use Survey
vmt	vehicle-miles of travel
VOC	volatile organic compounds

Appendix C: Glossary

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

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

ACCIDENT (aircraft): As defined by the National Transportation Safety Board (NTSB), an occurrence associated with the operation of an aircraft that takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death, or serious injury, or in which the aircraft receives substantial damage.

ACCIDENT (automobile): See Crash (highway).

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

ACCIDENT (hazardous liquid or gas): Release of hazardous liquid or carbon dioxide while being transported, resulting in any of the following: 1) an explosion or fire not intentionally set by the operator; 2) loss of 50 or more barrels of hazardous liquid or carbon dioxide; 3) release to the atmosphere of more than 5 barrels a day of highly volatile liquids; 4) death of any person; 5) bodily harm resulting in one or more of the following—a) the loss of consciousness, b) the necessity of carrying a person from the scene, c) the necessity for medical treatment, d) disability that prevents the discharge of normal duties; and 6) estimated damage to the property of the operators and/or others exceeding $50,000.

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

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

ACCIDENT (recreational boating): An occurrence that involves the vessel or its equipment when 1) A person dies; or 2) A person disappears from the vessel under circumstances that indicate death or injury; or 3) A person is injured and requires medical treatment beyond first aid; or 4) Damage to vessels and other property totals $2,000 or more; or 5) There is a complete loss of any vessel. Under federal regulations (33 CFR Part 173; Subpart C – Casualty and Accident Reporting) the operator of any numbered vessel that was not required to be inspected or a vessel that was used for recreational purposes is required to file a Boating Accident Report (BAR).

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

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

AIR TAXI: An aircraft operator who conducts operations for hire or compensation in accordance with 14 CFR 135 (for safety purposes) or FAR Part 135 (for economic regulations or reporting purposes) in an aircraft with 10 or fewer passenger seats. An air taxi operates on an on-demand basis and does not meet the flight schedule qualifications of a commuter air carrier (see below).

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

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

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

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

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

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

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

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

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

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

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

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

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

CANCELLATIONS (air): are flights that were not operated, but were listed in a carrier's computer reservation system within seven calendar days of the scheduled departure.

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

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

CERTIFICATED AIR CARRIER: An air carrier holding a Certificate of Public Convenience and Necessity issued by the U.S. Department of Transportation to conduct scheduled services interstate. These carriers may also conduct non-scheduled or charter operations. Certificated air carriers operate large aircraft (60 seats or more or a maximum load of 18,000 pounds or more) in accordance with FAR Part 121. See also Large Certificated Air Carrier.

CERTIFICATED AIRPORTS: Airports serving any— (1) scheduled passenger-carrying operations of an air carrier operating aircraft designed for more than 9 passenger seats; and (2) unscheduled passenger-carrying operations of an air carrier operating aircraft designed for at least 31 passenger seats.

CHAINED DOLLARS: A measure used to express real prices, defined as prices that are adjusted to remove the effect of changes in the purchasing power of the dollar. Real prices usually reflect buying power relative to a reference year. The "chained-dollar" measure is based on the average weights of goods and services in successive pairs of years. It is "chained" because the second year in each pair, with its weights, becomes the first year of the next pair. Prior to 1996, real prices were expressed in constant dollars, a weighted measure of goods and services in a single year. See also Constant Dollars and Current Dollars.

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

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

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

COMBINATION (water) includes ore/bulk/oil carriers, and bulk/oil carriers.

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

COMMERCIAL BUS: Any bus used to carry passengers at rates specified in tariffs; charges may be computed per passenger (as in regular route service) or per vehicle (as in charter service).

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

COMMUTER AIR CARRIER: Different definitions are used for safety purposes and for economic regulations and reporting. For safety analysis, commuter carriers are defined as air carriers operating under 14 CFR 135 that carry passengers for hire or compensation on at least five round trips per week on at least one route between two or more points according to published flight schedules, which specify the times, days of the week, and points of service. On March 20, 1997, the size of the aircraft subject to 14 CFR 135 was reduced from 30 to fewer than 10 passenger seats. (Larger aircraft are subject to the more stringent regulations of 14 CFR 121.) Helicopters carrying passengers or cargo for hire, however, are regulated under CFR 135 whatever their size.

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

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

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

Consumer Price Index (CPI): For a specific item, is a weighted average of the prices for the individual components.

CONTAINER (water): includes full containerships, refrigerated container carriers.

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

CRUDE OIL: A mixture of hydrocarbons that exists in the liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities.

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

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

DEMAND RESPONSE (transit): is comprised of passenger cars, vans, or small buses operating in response to calls from passengers or their agents to the transit operator, who then dispatches a vehicle to pick-up the passengers and transport them to their destinations. This service is also known as dial-a-ride or paratransit.

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

DIVERSIONS (air): are flights that left from the scheduled departure airport, but flew to a destination point other than the scheduled destination point.

DOMESTIC FREIGHT (water): All waterborne commercial movement between points in the United States, Puerto Rico, and the Virgin Islands, excluding traffic with the Panama Canal Zone. Cargo moved for the military in commercial vessels is reported as ordinary commercial cargo; military cargo moved in military vessels is omitted.

DOMESTIC OPERATIONS (air carrier): All air carrier operations having both origins and destinations within the 50 United States, the District of Columbia, U.S. possessions and U.S. Trust Territories.

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

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

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

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

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

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

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

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

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

FATALITY (transit): A transit-caused death confirmed within 30 days of a transit incident. Incidents include collisions, derailments, personal casualties, and fires associated with transit agency revenue vehicles, transit facilities on transit property, service vehicles, maintenance areas, and rights-of-way.

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

FERRYBOAT (transit): Vessels that carry passengers and/or vehicles over a body of water. Generally steam or diesel-powered, ferryboats may also be hovercraft, hydrofoil, and other high-speed vessels. The vessel is

limited in its use to the carriage of deck passengers or vehicles or both, operates on a short run on a frequent schedule between two points over the most direct water routes other than in ocean or coastwise service, and is offered as a public service of a type normally attributed to a bridge or tunnel.

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

FUNCTIONALLY DEFICIENT (highway): refers to bridges that do not have the lane widths, shoulder widths, or vertical clearances adequate to serve traffic demand or bridges that may not be able to handle occasional roadway flooding.

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

FREIGHTERS (water): General cargo carriers, full containerships, partial containerships, roll on/roll off vessels, and barge carriers.

GAS CARRIER (water): includes liquefied natural gas carriers (LNG), liquefied petroleum gas (LPG) carriers, and LNG/LPG carriers.

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

GASOLINE: A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to produce a fuel suitable for use in spark ignition engines. Motor gasoline includes both leaded or unleaded grades of finished motor gasoline, blending components, and gasohol. Leaded gasoline is no longer used in highway motor vehicles in the United States.

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

GENERAL CARGO (water): includes general cargo carriers, partial containerships, refrigerated ships, barge carriers, and livestock carriers.

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

GRADE CROSSING (rail): a location where a public highway, road, street, or private roadway, including associated sidewalks and pathways, crosses one or more railroad tracks at grade.

GRADE CROSSING (transit): 1) At grade, mixed, and cross traffic crossings, meaning railway right-of-way over which other traffic moving in the same direction or other cross directions may pass. This includes city street right-of-way; 2) at grade with cross traffic crossings, meaning railway right-of-way over which

no other traffic may pass, except to cross at grade-level crossings. This can include median strip rights-of-way with grade level crossings at intersecting streets.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Possible Injury: Any injury reported or claimed that is not evident. Includes, among others, momentary unconsciousness, claim of injuries not obvious, limping, complaint of pain, nausea, and hysteria.

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

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

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

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

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

INLAND AND COASTAL CHANNELS: Includes the Atlantic Coast Waterways, the Atlantic Intracoastal Waterway, the New York State Barge Canal System, the Gulf Coast Waterways, the Gulf Intracoastal Waterway, the Mississippi River System (including the Illinois Waterway), the Pacific Coast Waterways, the Great Lakes, and all other channels (waterways) of the United States, exclusive of Alaska, that are usable for commercial navigation.

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

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

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

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

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

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

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

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

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

LATE DEPARTURES (air): are flights departing 15 minutes or more after the scheduled departure time.

LATE ARRIVALS (air): are flights arriving 15 minutes or more after the scheduled arrival time.

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

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

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

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

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

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

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

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

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

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

MOTORBUS (transit): A rubber-tired, self-propelled, manually steered bus with a fuel supply onboard the vehicle. Motorbus types include intercity, school, and transit.

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

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

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

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

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

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

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

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

NONVESSEL-CASUALTY-RELATED DEATH (water): A death that occurs onboard a commercial vessel but not as a result of a vessel casualty, such as a collision, fire, or explosion.

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

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

ON-DEMAND AIR TAXI : See Air Taxi.

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

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

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

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

OPERATING MARGIN: Measures profit or loss as a percentage of the airline's total operating revenue.

OPERATING PROFIT (air): Revenues from the performance of air transportation and related incidental services (see OPERATING REVENUES for air) less expenses incurred in the performance of air transportation (see OPERATING EXPENSES for air).

OPERATING REVENUES (air): Revenues from the performance of air transportation and related incidental services. Includes 1) transportation revenues from the carriage of all classes of Traffic in scheduled and nonscheduled services, and 2) non-transportation revenues consisting of federal subsidies (where applicable) and services related to air transportation.

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

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

OTHER RAIL REVENUE: Includes revenues from miscellaneous operations (i.e., dining- and bar-car services), income from the lease of road and equipment, miscellaneous rental income, income from non-operating property, profit from separately operated properties, dividend income, interest income, income from sinking and other reserve funds, release or premium on funded debt, contributions from other companies, and other miscellaneous income.

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

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

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

PASSENGER-MILE: 1) Air: One passenger transported 1 mile; passenger-miles for 1 inter-airport flight are calculated by multiplying aircraft-miles flown by the number of passengers carried on the flight. The total passenger-miles for all flights is the sum of passenger-miles for all interairport flights. 2) Auto: One passenger traveling 1 mile; e.g., 1 car transporting 2 passengers 4 miles results in 8 passenger-miles. 3) Transit: The total number of miles traveled by transit passengers; e.g., 1 bus transporting 5 passengers 3 miles results in 15 passenger-miles.

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

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

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

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

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

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

PERSONAL CASUALTY (transit): 1) An incident in which a person is hurt while getting on or off a transit vehicle (e.g., falls or door incidents), but not as a result of a collision, derailment/left roadway, or fire. 2) An incident in which a person is hurt while using a lift to get on or off a transit vehicle, but not as a result of a collision, derailment/left roadway, or fire. 3) An incident in which a person is injured on a transit vehicle, but not as a result of a collision, derailment/left roadway, or fire. 4) An incident in which a person is hurt

while using a transit facility. This includes anyone on transit property (e.g., patrons, transit employees, trespassers), but does not include incidents resulting from illness or criminal activity.

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

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

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

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

REVENUE: Remuneration received by carriers for transportation activities.

REVENUE PASSENGER: 1) Air: Person receiving air transportation from an air carrier for which remuneration is received by the carrier. Air carrier employees or others, except ministers of religion, elderly individuals, and handicapped individuals, receiving reduced rate charges (less than the applicable tariff) are considered non-revenue passengers. Infants, for whom a token fare is charged, are not counted as passengers. Passengers traveling on frequent flyer passes are revenue passengers. 2) Transit: Single-vehicle transit rides by initial-board (first-ride) transit passengers only. Excludes all transfer rides and all nonrevenue rides. 3) Rail: Number of one-way trips made by persons holding tickets.

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

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

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

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

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

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

ROLL ON/ROLL OFF (RO/RO) (water): includes Ro/Ro Vessels, Ro/Ro Containerships, and Pure Car Carriers (PCC), which allow vehicles and other wheeled cargos to be loaded and unloaded using ramps.

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

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

STRUCTURALLY DEFICIENT (highway): refers to bridges needing significant maintenance attention, rehabilitation, or replacement.

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

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

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

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

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

SMALL CERTIFICATED AIR CARRIER: An air carrier holding a certificate issued under section 401 of the Federal Aviation Act of 1958, as amended, that operates aircraft designed to have a maximum seating capacity of 60 seats or fewer or a maximum payload of 18,000 pounds or less.

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

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

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

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

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

TRAIN LINE MILEAGE: The aggregate length of all line-haul railroads. It does not include the mileage of yard tracks or sidings, nor does it reflect the fact that a mile of railroad may include two or more parallel tracks. Jointly-used track is counted only once.

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

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

TRANSPORTATION WORKER IDENTIFICATION CREDENTIAL: is a common identification credential for all personnel requiring unescorted access to secure areas of facilities and vessels regulated by the Maritime Transportation Security Act (MTSA) and all mariners holding Coast Guard-issued credentials. The Transportation Security Administration (TSA) will issue workers a tamper-resistant "Smart Card" containing the worker's biometric (fingerprint template) to allow for a positive link between the card itself and the individual.

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

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

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

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

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

UNLEADED GASOLINE: See Gasoline.

UNLINKED PASSENGER TRIPS (transit): The number of passengers boarding public transportation vehicles. A passenger is counted each time he/she boards a vehicle even if the boarding is part of the same journey from origin to destination.

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

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

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

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

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

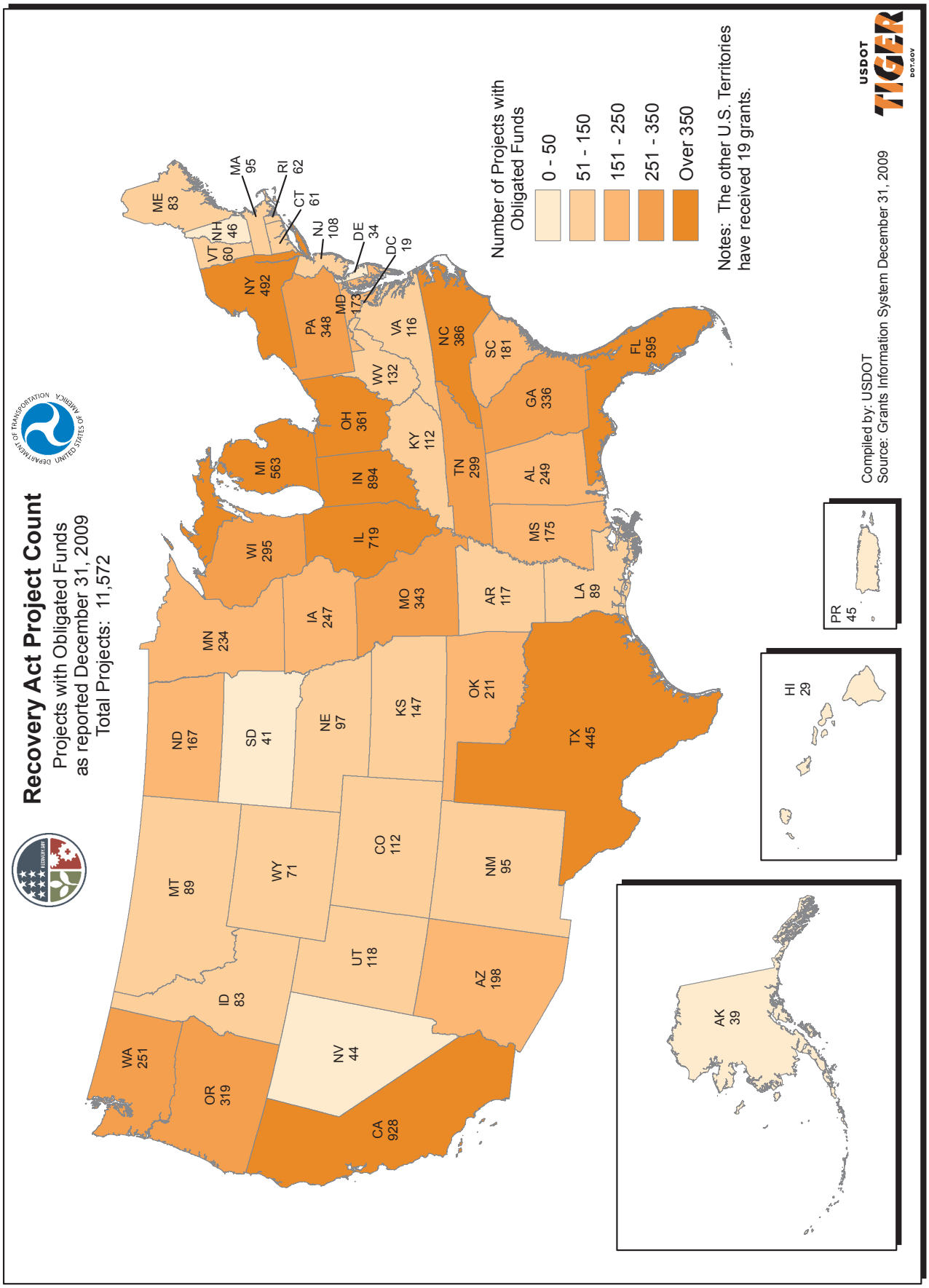
VEHICLE OPERATIONS (transit): All activities associated with transportation administration, including the control of revenue vehicle movements, scheduling, ticketing and fare collection, system security, and revenue vehicle operation.

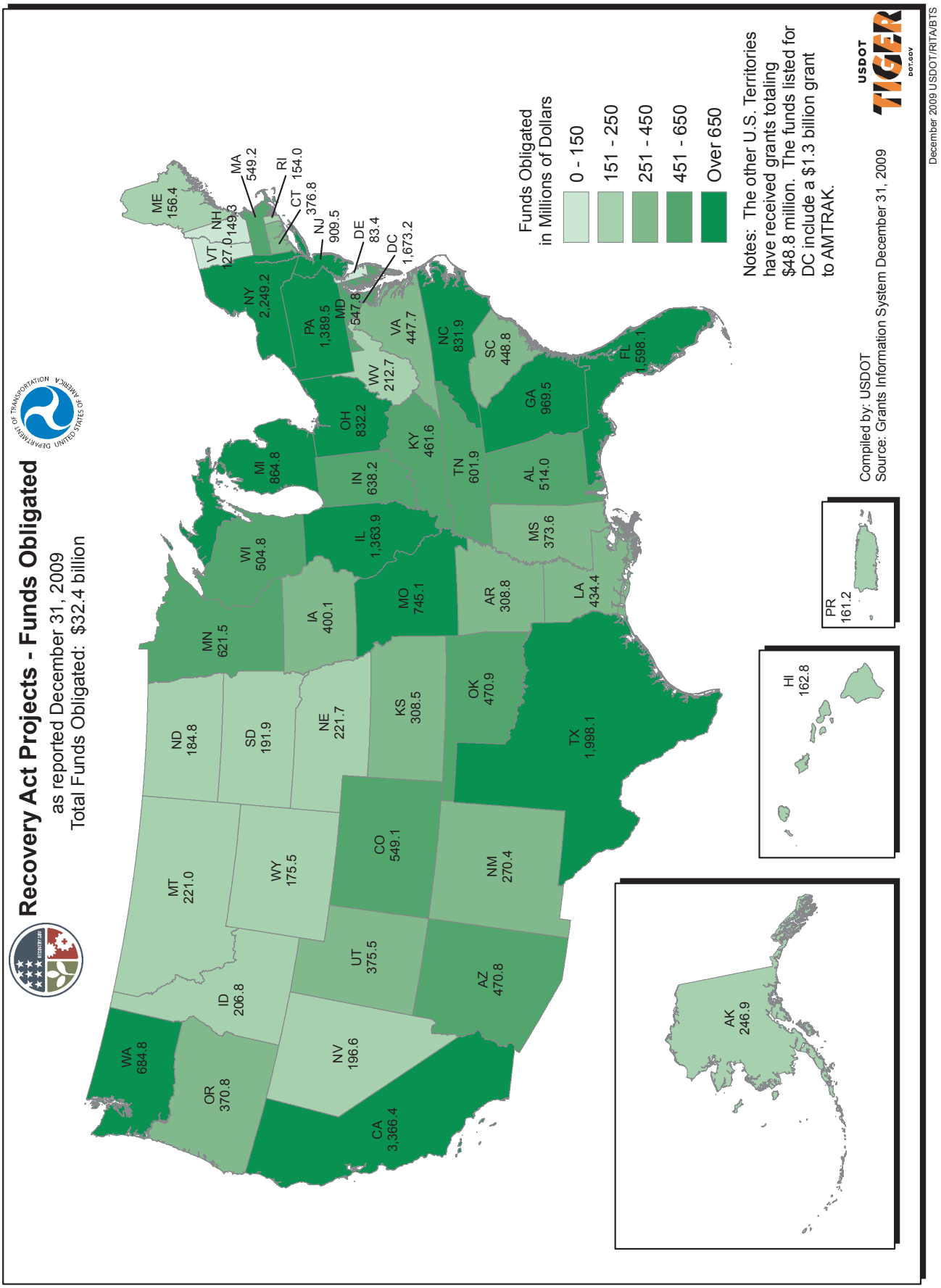
VESSEL CASUALTY (water): An occurrence involving commercial vessels that results in 1) actual physical damage to property in excess of $25,000; 2) material damage affecting the seaworthiness or efficiency of a vessel; 3) stranding or grounding; 4) loss of life; or 5) injury causing any person to remain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

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

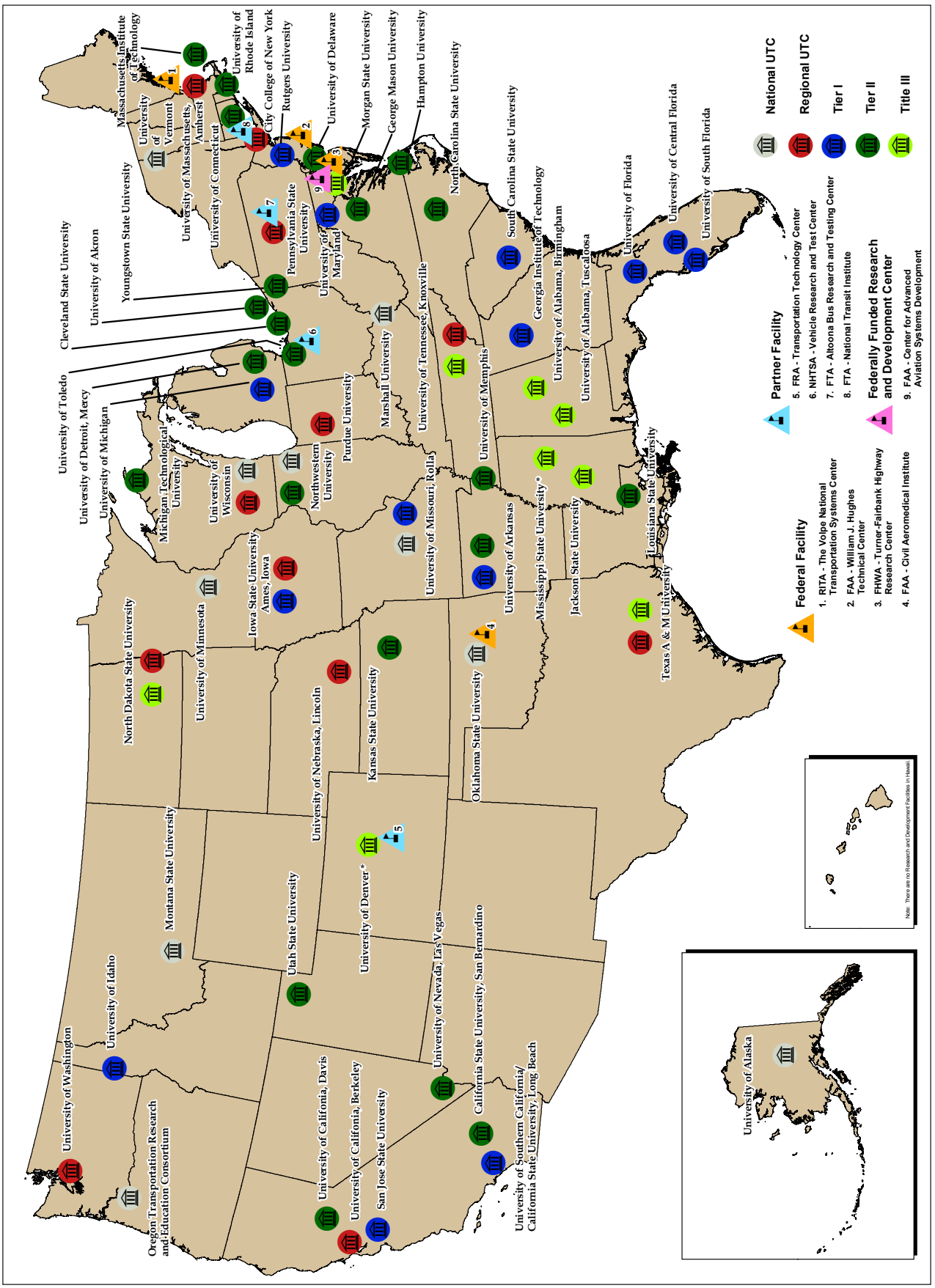
WATERBORNE TRANSPORTATION: Transport of freight and/or people by commercial vessels under U.S. Coast Guard jurisdiction.

Appendix D: Maps

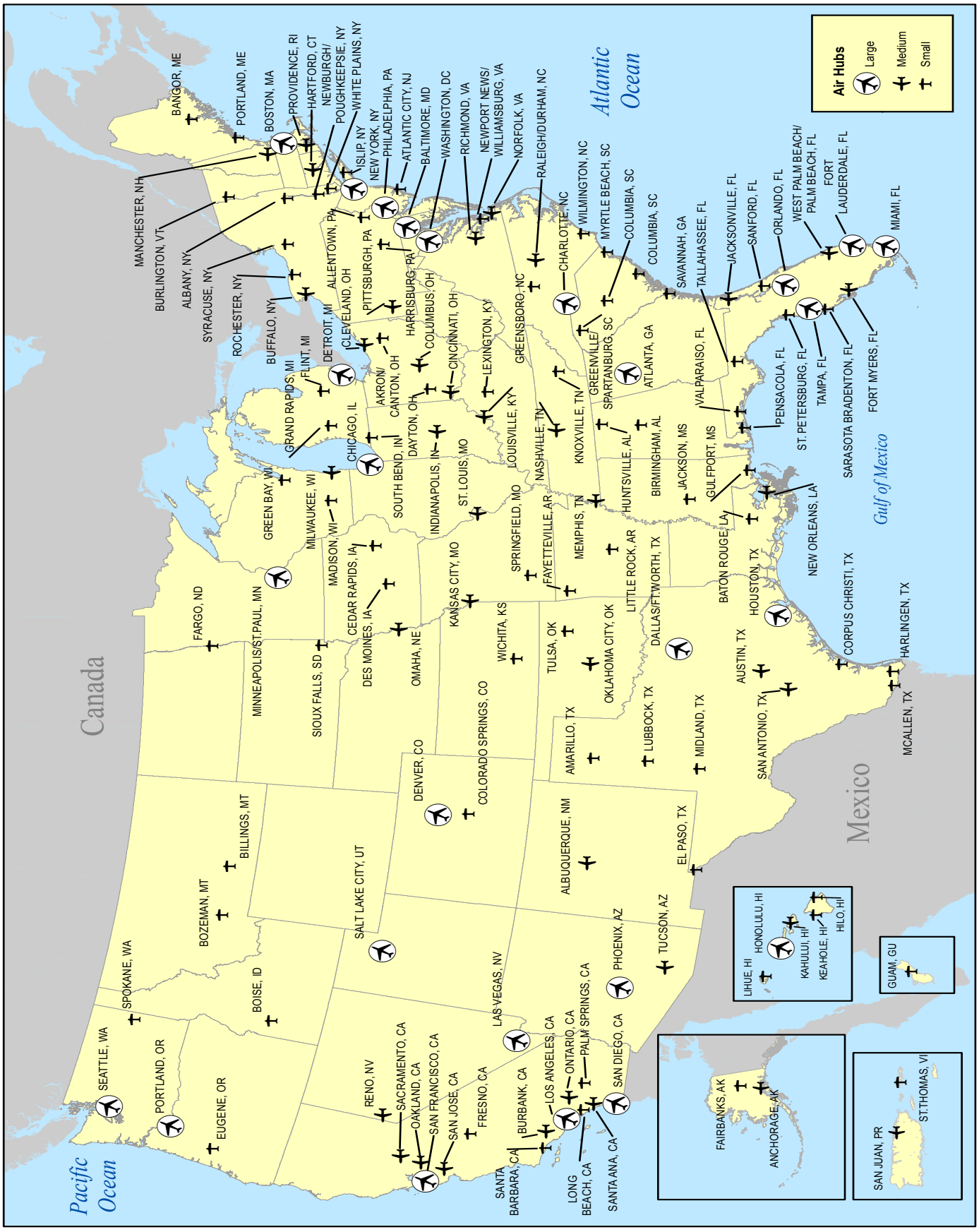



Recovery Act Projects - Funds Obligated
as reported December 31, 2009
Total Funds Obligated: $32.4 billion
Funds Obligated in Millions of Dollars
0 - 150
151 - 250
251 - 450
451 - 650
Over 650
Notes: The other U.S. Territories have received grants totaling $48.8 million. The funds listed for DC include a $1.3 billion grant to AMTRAK.
Compiled by: USDOT
Source: Grants Information System December 31, 2009
USDOT TIGER
December 2009 USDOT/RITA/BTS
WA 684.8
OR 370.8
CA 3,366.4
ID 206.8
NV 196.6
MT 221.0
WY 175.5
UT 375.5
AZ 470.8
CO 549.1
NM 270.4
ND 184.8
SD 191.9
NE 221.7
KS 308.5
OK 470.9
TX 1,998.1
MN 621.5
IA 400.1
MO 745.1
AR 308.8
LA 434.4
WI 504.8
IL 1,363.9
MS 373.6
MI 864.8
IN 638.2
TN 601.9
AL 514.0
OH 832.2
KY 461.6
GA 969.5
WV 212.7
VA 447.7
NC 831.9
SC 448.8
PA 1,389.5
NY 2,249.2
FL 598.1
MD 547.8
DE 83.4
DC 1,673.2
NJ 909.5
CT 376.8
RI 154.0
MA 549.2
VT 127.0
NH 149.3
ME 156.4
AK 246.9
HI 162.8
PR 161.2

U.S. Department of Transportation Funded Research and Development Facilities



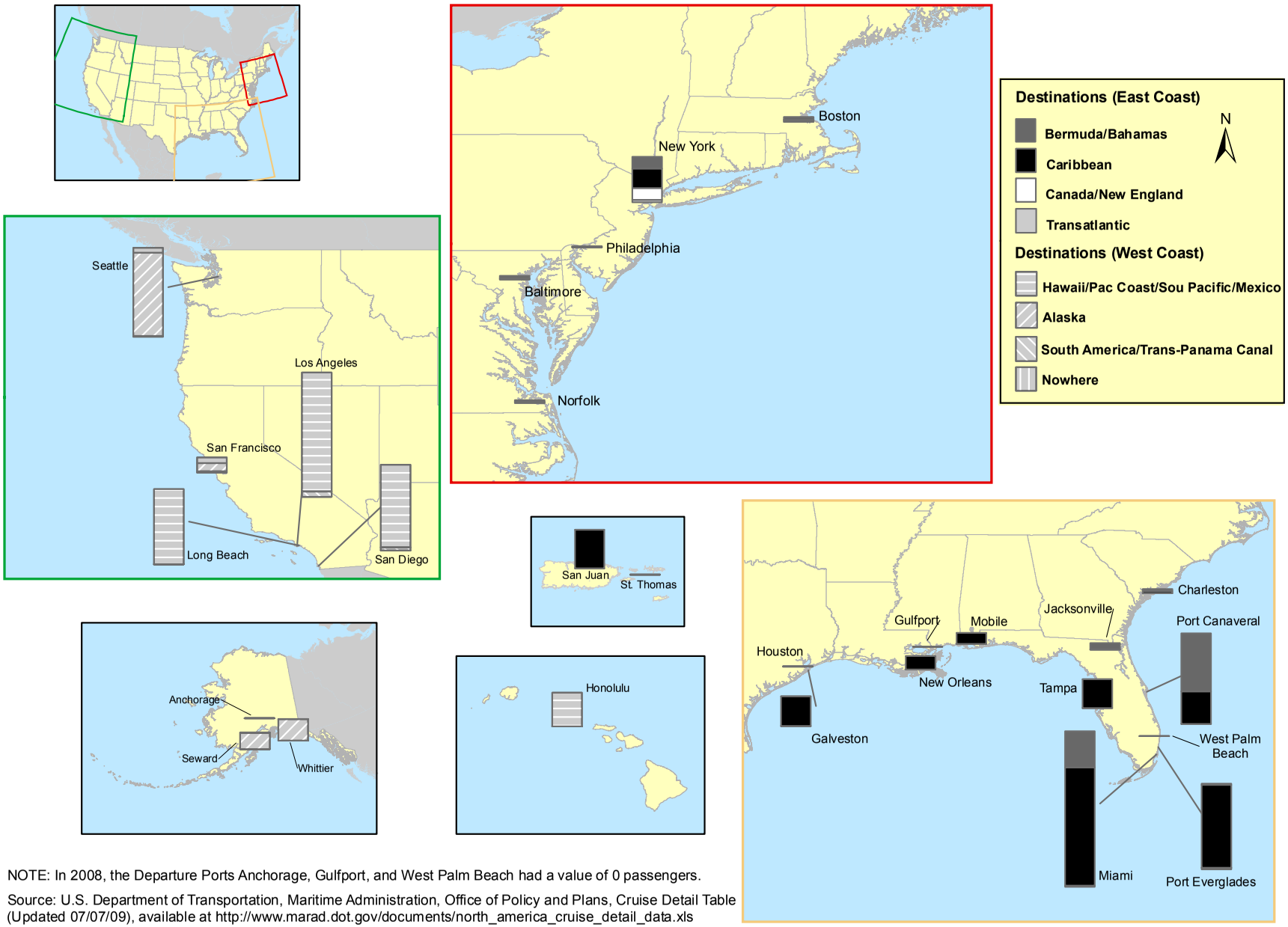
Air Traffic Hubs 2009



NOTE: An Air Traffic Hub is a community of geographic area whose airport(s) serve at least .05% of all enplaned (boarded) passengers in the United States. All locations displayed here had a total enplanement of 30,000 or more for 2008. They are categorized based on their share of total enplaned passengers: Large, 1% or more; Medium. 0.25%-0.99%; and Small, 0.05%-0.24%. Source: BTS data as of August 2009

U.S. Department of Transportation
Research and Innovative Technology Administration
Bureau of Transportation Statistics

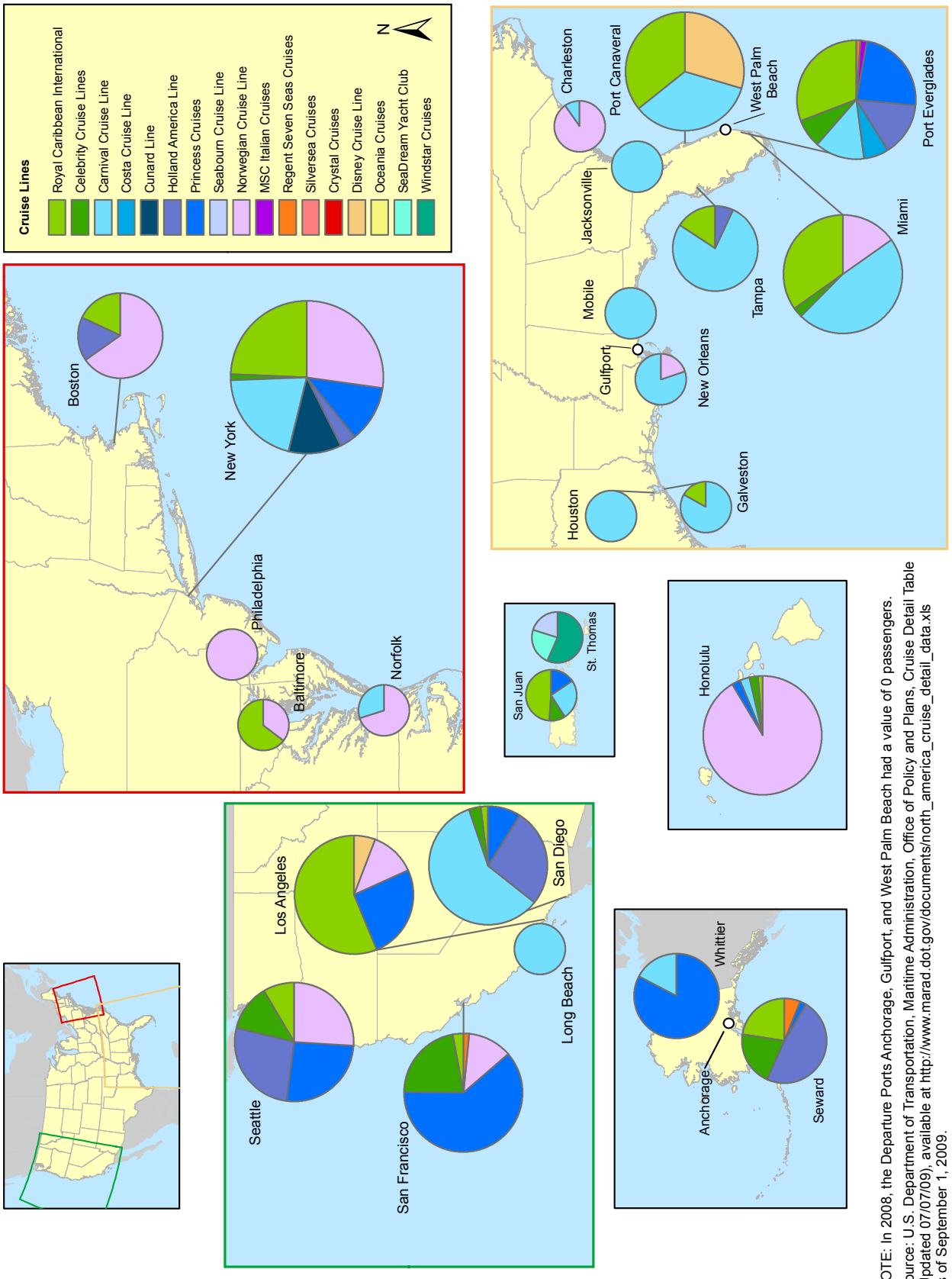
Destination by U.S. Departure Port



NOTE: In 2008, the Departure Ports Anchorage, Gulfport, and West Palm Beach had a value of 0 passengers.

Source: U.S. Department of Transportation, Maritime Administration, Office of Policy and Plans, Cruise Detail Table (Updated 07/07/09), available at http://www.marad.dot.gov/documents/north_america_cruise_detail_data.xls as of September 1, 2009.

Cruise Lines by U.S. Departure Port



NOTE: In 2008, the Departure Ports Anchorage, Gulfport, and West Palm Beach had a value of 0 passengers.
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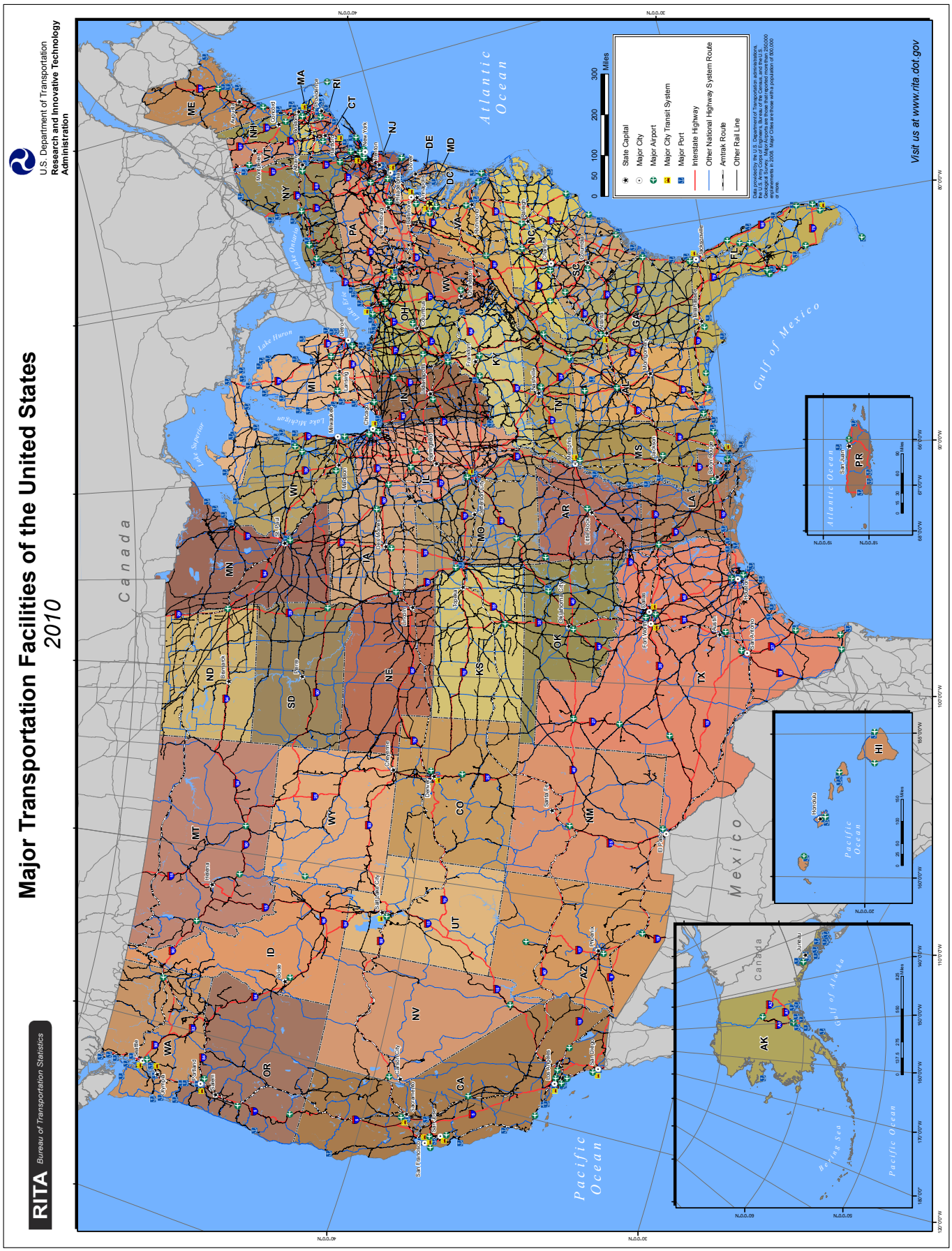
Major Transportation Facilities of the United States
2010
RITA Bureau of Transportation Statistics
U.S. Department of Transportation
Research and Innovative Technology Administration
Visit us at www.rita.dot.gov
State Capital
Major City
Major Airport
Major City Transit System
Major Port
Interstate Highway
Other National Highway System Route
Amtrak Route
Other Rail Line
0 50 100 200 300 Miles
Canada
Mexico
Atlantic Ocean
Pacific Ocean
Gulf of Mexico
Lake Superior
Lake Michigan
Lake Huron
Lake Erie
Lake Ontario
Gulf of Alaska
Bering Sea
Printed on paper containing recycled post consumer waste paper.

Appendix E: Legislative Mandate

Topics Specified in the SAFETEA-LU Legislation (49 U.S.C. 111 (c) (5))

The *Transportation Statistics Annual Report* (TSAR) presents data and information provided by the Bureau of Transportation Statistics (BTS), a component of the U.S. Department of Transportation's (USDOT's) Research and Innovative Technology Administration (RITA), to fulfill its legislative mandate—the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: a Legacy for Users* (SAFETEA-LU), 49 U.S.C. 111. This appendix cross-references the topics specified in the mandate (stated below) with the figures and tables provided in TSAR.

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

Heading/Title	Table	Legislative Responsibilities												
		A	B	C	D	E	F	G	H	I	J	K	L	M
Safety														
Transportation Fatalities by Mode	1-1-1										X			
Distribution of Transportation Fatalities	1-1-2										X			
Transportation-Related Occupational Fatalities	1-1-3										X			
Injured Persons by Transportation Mode	1-1-4										X			
Transportation Accidents by Mode	1-1-5										X			
Hazardous Materials Transportation Incidents	1-1-6										X	X		
Top 20 Hazardous Material Incidents by Material	1-1-7										X	X		
Prohibited Items Intercepted at Airport Screening Checkpoints	1-1-8										X			
Transportation Worker Identification Credential (TWIC) Program	1-1-9										X			
International Piracy and Armed Robbery at Sea	1-1-10										X			
Vessel Detentions	1-1-11										X			
Livable Communities														
Public Transit Ridership	1-2-1		X						X					
Airport, Ferry, and Rail Facility Intermodal Connectivity	1-2-2			X					X				X	
Number of Stations Served by Amtrak and Rail Transit	1-2-3												X	
Transit Rail Stations That Are ADA-Compliant by Service Type	1-2-4					X			X					
Buses That Are ADA-Compliant	1-2-5					X			X					
How People Get to Work	1-2-6				X									
Departure Time: Leaving Home to Go to Work	1-2-7				X									
Travel Time to Work	1-2-8				X									
Households Without a Vehicle by Householder Age	1-2-9						X							
Index of U.S. Vehicle-Miles	1-2-10		X											
Index of U.S. Passenger-Miles	1-2-11		X											
Travel Time Index by Metro Area	1-2-12				X									
Average Hours of Annual Delay Per Traveler	1-2-13				X									
Average Daytime Wait Times for Passenger Vehicles at Borders	1-2-14				X									
Average Daytime Wait Times for Commercial Vehicles at Borders	1-2-15				X									
St. Lawrence Seaway (U.S. Portion) Downtime by Cause	1-2-16				X					X				
Passenger Fares														
Prices Paid by U.S. Households for Transportation Services	1-2-17							X						
Average Household Transportation Expenditures	1-2-18							X						
Average Passenger Fares	1-2-19							X						
U.S. Domestic Airline Industry Historical Average Itinerary Fares	1-2-20							X						
Comparison of Air Travel Price Indexes (ATPIs)	1-2-21							X						
Avg. Itinerary Fares and Consumer Price Index (CPI) Changes	1-2-22							X						
Highest and Lowest Average Domestic Fares by Origin Airport	1-2-23							X						

Heading/Title	Table	Legislative Responsibilities											
		A	B	C	D	E	F	G	H	I	J	K	L	M
State of Good Repair														
Rural/Urban Rds. in Poor/Mediocre Condition by Functional Class	1-3-1												X	
Condition of U.S. Highway Bridges	1-3-2												X	
U.S. Airport Runway Pavement Conditions	1-3-3												X	
Rail Replaced or Added by U.S. Class I Railroads	1-3-4												X	
Crossties Replaced or Added by U.S. Class I Railroads	1-3-5												X	
New and Rebuilt Locomotives and Freight Cars	1-3-6					X								
Average Age of Urban Transit Vehicles	1-3-7					X								
U.S. Flag Vessel by Type and Age	1-3-8					X								
Average Age of Amtrak Locomotive and Train Car Fleets	1-3-9					X								
Median Age of Automobiles and Trucks in Operation in the U.S.	1-3-10					X								
State and Local Expenditures on Nonroadway Trans. Construction	1-3-11							X						
Private Expenditures on Transportation-Related Construction	1-3-12							X						
Passenger and Freight Expenditures	1-3-13							X						
Federal, State, and Local Government Transportation Revenues	1-3-14							X						
Federal Government Transportation Revenues by Mode	1-3-15							X						
Federal, State, and Local Government Transportation Expend.	1-3-16							X						
Federal Government Transportation Expenditures by Mode	1-3-17							X						
State and Local Expenditures on Air Transportation Construction	1-3-18							X						
Federal, State, and Local Expenditures on Highway and Street Const.	1-3-19							X						
Economic Competitiveness														
Transportation Services Index (TSI)	1-4-1	X												
Labor Productivity of the For-Hire Transportation Industries	1-4-2	X												
Multifactor Productivity Index	1-4-3	X												
U.S. Gross Domestic Product Attributed to For-Hire Trans. Serv.	1-4-4													X
U.S. GDP Attributed to Transportation-Related Final Demand	1-4-5													X
Employment in For-Hire Trans. and Selected Trans.-Related Ind.	1-4-6	X												X
Average Annual U.S. Airline Industry FTE Employees	1-4-7	X												X
U.S. Ton-Miles of Freight	1-4-8		X											
Major U.S. Air Carrier On-Time Performance	1-4-9				X									
Airline Delays by Cause	1-4-10				X					X				
Airline Delays by Length of Delay by Year	1-4-11				X									
Monthly Summary of Tarmac Times Over 3 Hours	1-4-12				X									
Amtrak Hours of Delay by Cause	1-4-13				X					X				
International Freight Transportation and Passenger Travel														
U.S. International Trade in Transportation-Related Goods	1-4-14													X
U.S. Trade in Transportation-Related Goods by Commodity	1-4-15													X
U.S. International Trade in Transportation-Related Services	1-4-16													X

Heading/Title	Table	Legislative Responsibilities											
		A	B	C	D	E	F	G	H	I	J	K	L	M
U.S. Surface Trade With Canada and Mexico	1-4-17													X
Incoming Truck Crossings to the U.S. From Mexico and Canada	1-4-18													X
Incoming Train Crossings to the U.S. From Mexico and Canada	1-4-19													X
Incoming Full Rail Containers to U.S. From Mexico and Canada	1-4-20													X
Passenger Cross. Into U.S. by Per. Veh. From Mexico and Canada	1-4-21													X
Passenger Crossings Into U.S. by Bus From Mexico and Canada	1-4-22													X
Passenger Crossings Into U.S. by Train From Mexico and Canada	1-4-23													X
Pedestrian Crossings Into the U.S. From Mexico and Canada	1-4-24													X
Environmental Sustainability														
Greenhouse Gas Emissions by Mode	1-5-1											X		
U.S. Energy-Related GHG Emissions by End-Use Sector	1-5-2											X		
Transp. Air Pollutant Emissions From On-Road Mobile Sources	1-5-3											X		
Miles of Highway Sound Walls Constructed	1-5-4											X		
Population Affected by High Decibel Noise at Airports	1-5-5											X		
Wetlands Converted for Transportation	1-5-6											X		
Volume of Oil Spills From Facilities by Sources	1-5-7											X		
Energy Consumption and Price														
Average Fuel Efficiency of U.S. Passenger Cars and Light Trucks	1-5-8							X						
Energy Consumption by Transportation Sector	1-5-9							X						
Energy Consumption by Mode of Transportation	1-5-10							X						
U.S. Petroleum Use by Sector	1-5-11							X						
Energy Intensity by Passenger Mode	1-5-12							X						
Fuel Prices	1-5-13							X						
Sales Price of Transportation Fuel to End-Users	1-5-14							X						
Domestic and Intl. U.S. Airline Fuel Cost and Consumption	1-5-15							X						
Commodity Flow Survey														
U.S. Shipment Characteristics by Mode of Transportation	1-6-1	X												
U.S. Shipment Characteristics by Industry	1-6-2	X												
Hazardous Material Shipment Characteristics by Trans. Mode	1-6-3	X												
Intermodal/Multimodal														
Transportation System Mileage Within the United States	2-1-1			X										
Number of Air Carriers, Railroads, Interstate Motor Carriers...	2-1-2			X										
Number of U.S. Aircraft, Vehicles, and Other Conveyances	2-1-3			X										
Transportation Capital Stock by Mode	2-1-4			X										
Aviation														
Number of U.S. Airports	2-2-1												X	
Annual U.S. Airline Passenger Enplanements	2-2-2		X											X
Top 10 U.S. Airports Ranked by Domestic Scheduled Passengers	2-2-3		X											

Heading/Title	Table	Legislative Responsibilities											
		A	B	C	D	E	F	G	H	I	J	K	L	M
Top 10 U.S. Airports Ranked by Intl. Scheduled Passenger	2-2-4		X											
Domestic Enplanements at U.S. Airports	2-2-5		X											X
Number of U.S. Airports With Scheduled Passenger Service	2-2-6		X											X
U.S. Airline Industry Operating Margins	2-2-7		X				X							
U.S. Airline Net Income (Profit)	2-2-8	X												
U.S. Airline Industry Passenger Yields	2-2-9	X												
Domestic and Intl. Operating Revenue/Cost Per Avail. Seat Mile	2-2-10							X						
Annual Dom. and Intl. U.S. Airline Industry Operating Revenue	2-2-11	X												
U.S. Airline Industry Ancillary Fees	2-2-12							X						
Dom. and Intl. U.S. Airline Industry % of Operating Expenses	2-2-13						X							
Motor Vehicles														
Average Cost Per Mile of Owning and Operating an Automobile	2-3-1							X						
Roadside Truck Inspections	2-3-2										X			
Annual U.S. Motor Vehicle Production and Factory Sales	2-3-3													X
Marine Transportation System														
U.S. Waterway Facilities	2-4-1												X	
North America Cruise Passengers by Departure Port	2-4-2		X											
Average Capacity of Vessels Calling at U.S. Ports by Type	2-4-3	X				X								
Top 10 U.S. Maritime Container Ports	2-4-4		X											
Vessel Calls at U.S. Ports	2-4-5		X											
U.S. International Maritime Container Volumes	2-4-6					X								X
U.S.-Foreign Waterborne Freight	2-4-7													X
Rail														
Top 25 Busiest Amtrak Stations	2-5-1		X											
Amtrak Trains Arriving On Time	2-5-2				X									
Amtrak Ridership (Monthly)	2-5-3		X											
Amtrak Ridership (Annual)	2-5-4	X	X			X								
Average Loaded U.S. Railcar Weight	2-5-5		X											
Rail Freight Avg. Speeds, Revenue Ton-Miles, Terminal Dwell Times	2-5-6		X											
Rail Freight Revenue Ton-Miles	2-5-7		X											
Transit														
Interruptions of Service by Type of Transit	2-6-1		X							X				
Top 20 Transit Agencies by Unlinked Passenger Trips	2-6-2		X											
Transit Passenger-Miles by Type of Service	2-6-3	X												
Transit Unlinked Trips by Type of Service	2-6-4	X												

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