

# APPENDIX A. SELECTED METRIC DATA

**Table 2-1M. Weight of Shipments by Transportation Mode: 2007, 2009, and 2040 (millions of metric tonnes)**

	2007				2009				2040			
	Total	Domestic	Exports <sup>2</sup>	Imports <sup>2</sup>	Total	Domestic	Exports <sup>2</sup>	Imports <sup>2</sup>	Total	Domestic	Exports <sup>2</sup>	Imports <sup>2</sup>
<b>Total</b>	16,856	15,038	595	1,224	14,626	13,061	591	974	24,589	20,659	1,643	2,287
<b>Truck</b>	11,581	11,413	86	82	9,859	9,719	78	63	16,733	16,296	249	189
<b>Rail</b>	1,718	1,583	56	79	1,532	1,429	52	51	2,185	1,913	141	131
<b>Water</b>	720	326	47	347	666	318	46	301	1,037	437	95	505
<b>Air, air &amp; truck</b>	12	2	4	5	10	2	4	4	37	5	14	18
<b>Multiple modes &amp; mail<sup>1</sup></b>	1,389	471	371	547	1,212	416	384	413	2,829	657	1,069	1,103
<b>Pipeline</b>	1,152	998	4	150	1,107	970	4	133	1,369	1,051	8	310
<b>Other &amp; unknown</b>	284	244	27	14	240	208	24	8	399	301	66	32

<sup>1</sup>In this table, multiple modes & mail includes export and import shipments that move domestically by a different mode than the mode used between the port and foreign location.

<sup>2</sup>Data do not include imports and exports that pass through the United States from a foreign origin to a foreign destination by any mode.

**Notes:** 1 metric tonne = 1.1023 short tons. Numbers may not add to totals due to rounding. The 2009 data are provisional estimates, which are based on selected modal and economic trend data.

**Table 2-3M. Top Commodities: 2007**

Millions of Metric Tonnes		Billions of Dollars	
<b>Total, all commodities</b>	<b>17,534</b>	<b>Total, all commodities</b>	<b>16,536</b>
Gravel	2,053	Machinery	1,762
Cereal grains	1,338	Electronics	1,432
Coal	1,310	Motorized vehicles	1,269
Non-metal mineral products	1,263	Mixed freight	1,058
Waste/scrap	1,200	Pharmaceuticals	880
Natural gas & related <sup>1</sup>	1,158	Textiles/leather	696
Gasoline	912	Gasoline	691
Fuel oils	675	Miscellaneous manufactured products	689
Natural sands	517	Plastics/rubber	579
Crude petroleum	507	Articles of base metal	573

<sup>1</sup>Natural gas, selected coal products, and products of petroleum refining, excluding gasoline, aviation fuel, and fuel oil.

**Note:** 1 metric tonne = 1.1023 short tons.

**TABLE 2-1M. WEIGHT OF SHIPMENTS BY TRANSPORTATION MODE: 2007, 2009, AND 2040**

**Source:** U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, version 3.1, 2010.

**TABLE 2-3M. TOP COMMODITIES: 2007**

**Source:** U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, version 3.1, 2010.

**Table 2-4M. Hazardous Materials Shipments by Transportation Mode: 2007**

Transportation mode	Value		Metric Tonnes		Tonne kilometers		Kilometers
	\$ Billion	Percent	Millions	Percent	Billions	Percent	Average distance per shipment
<b>All modes, total</b>	<b>1,448</b>	100.0	<b>2,024</b>	100.0	<b>472</b>	100.0	<b>154</b>
<b>Single modes, total</b>	<b>1,371</b>	94.6	<b>1,916</b>	94.6	<b>408</b>	86.3	<b>105</b>
Truck <sup>1</sup>	837	57.8	1,091	53.9	152	32.2	95
For-hire	359	24.8	449	22.2	92	19.6	344
Private <sup>2</sup>	478	33.0	642	31.7	59	12.6	51
Rail	69	4.8	118	5.8	135	28.5	930
Water	69	4.8	136	6.7	54	11.5	616
Air	2	0.1	S	S	S	S	1,762
Pipeline <sup>3</sup>	393	27.2	571	28.2	S	S	S
<b>Multiple modes, total</b>	<b>71</b>	4.9	<b>101</b>	5.0	<b>63</b>	13.3	<b>1,342</b>
Parcel, U.S. Postal Service, or Courier	8	0.5	<1	<0.1	<1	<0.1	1,345
Other multiple modes	28	1.9	51	2.5	25	5.3	375
<b>Unknown and other modes, total</b>	<b>7</b>	0.5	<b>8</b>	0.4	<b>2</b>	0.5	<b>93</b>

**Key:** S = data are not published because of high sampling variability or other reasons.

<sup>1</sup>Truck as a single mode includes shipments that went by private truck only, for-hire truck only, or a combination of both.

<sup>2</sup>Private truck refers to a truck operated by a temporary or permanent employee of an establishment or the buyer/receiver of the shipment.

<sup>3</sup>Excludes crude oil shipments.

**Notes:** 1 metric tonne = 1.1023 short tons; 1 tonne kilometer = .6849 ton miles. Numbers and percents may not add to totals due to rounding.

**Table 2-5M. Hazardous Materials Shipments by Hazard Class: 2007**

Hazard class	Description	Value		Metric tonnes		Tonne kilometers	
		\$ Billions	Percent	Millions	Percent	Billions	Percent
Class 1	Explosives	12	0.8	3	0.1	<1	<0.1
Class 2	Gases	132	9.1	206	11.2	118	17.1
Class 3	Flammable liquids	1,170	80.8	1,443	78.6	387	56.3
Class 4	Flammable solids	4	0.3	17	0.9	12	1.7
Class 5	Oxidizers and organic peroxides	7	0.5	12	0.7	15	2.2
Class 6	Toxic (poison)	21	1.5	9	0.5	12	1.8
Class 7	Radioactive materials	21	1.4	<1	<0.1	<1	<0.1
Class 8	Corrosive materials	51	3.6	94	5.1	95	13.8
Class 9	Miscellaneous dangerous goods	30	2.1	52	2.8	49	7.1
<b>Total</b>		<b>1,448</b>	<b>100.0</b>	<b>1,836</b>	<b>100.0</b>	<b>688</b>	<b>100.0</b>

**Notes:** 1 metric tonne = 1.1023 short tons; 1 tonne kilometer = .6849 ton miles. Numbers and percents may not add to totals due to rounding.

**TABLE 2-4M. HAZARDOUS MATERIALS SHIPMENTS BY TRANSPORTATION MODE: 2007**

**Source:** U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics and U.S. Department of Commerce, Census Bureau, 2007 *Commodity Flow Survey, Hazardous Materials* (Washington, DC: February 2010), table 1a, available at [www.bts.gov/publications/commodity\\_flow\\_survey/](http://www.bts.gov/publications/commodity_flow_survey/) as of May 25, 2010.

**TABLE 2-5M. HAZARDOUS MATERIALS SHIPMENTS BY HAZARD CLASS: 2007**

**Source:** U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics and U.S. Department of Commerce, Census Bureau, 2007 *Commodity Flow Survey, Hazardous Materials* (Washington, DC: February 2010), table 1a, available at [www.bts.gov/publications/commodity\\_flow\\_survey/](http://www.bts.gov/publications/commodity_flow_survey/) as of May 25, 2010.

**Table 2-6M. Domestic Mode of Exports and Imports by Tonnage and Value: 2007 and 2040**

	Millions of Metric Tonnes		Billions of 2007 Dollars	
	2007	2040	2007	2040
<b>Total</b>	1,819	3,930	3,198	9,850
<b>Truck<sup>1</sup></b>	692	1,734	1,343	3,880
<b>Rail</b>	235	493	197	419
<b>Water</b>	124	213	52	92
<b>Air, air &amp; truck<sup>2</sup></b>	9	32	927	3,606
<b>Multiple modes &amp; mail<sup>3</sup></b>	138	387	287	929
<b>Pipeline</b>	312	592	147	274
<b>Other &amp; unknown</b>	37	93	112	457
<b>No domestic mode<sup>4</sup></b>	270	387	134	193

<sup>1</sup>Excludes truck moves to and from airports.

<sup>2</sup>Includes truck moves to and from airports.

<sup>3</sup>Multiple modes & mail include U.S. Postal Service, courier shipments, and all intermodal combinations, except air and truck. In this table, oceangoing export and import shipments that move between ports and domestic locations by single modes are classified by the domestic mode rather than multiple modes & mail.

<sup>4</sup>No domestic mode includes waterborne import shipments of crude petroleum off-loaded directly at the domestic destination (refineries) with no domestic mode of transportation.

**Notes:** 1 metric tonne = 1.1023 short tons. Numbers may not add to totals due to rounding.

**Table 2-8M. Value and Tonnage of U.S. Merchandise Trade with Canada and Mexico by Transportation Mode: 1998-2009**  
(billions of current U.S. dollars and millions of metric tonnes)

Mode	1999		2004		2008		2009	
	Value	Weight	Value	Weight	Value	Weight	Value	Weight
Truck <sup>1</sup>	385	NA	453	NA	554	165	455	141
Rail <sup>1</sup>	78	NA	108	NA	140	134	96	98
Air	34	<1	32	<1	41	<1	39	<1
Water	23	166	46	222	93	211	59	172
Pipeline <sup>1</sup>	12	NA	39	NA	88	89	49	89
Other <sup>1</sup>	25	NA	34	NA	47	6	37	5
<b>Total<sup>1</sup></b>	<b>559</b>	<b>NA</b>	<b>712</b>	<b>NA</b>	<b>964</b>	<b>606</b>	<b>735</b>	<b>506</b>

**Key:** NA = not available.

<sup>1</sup>The U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics estimated the weight of exports for truck, rail, pipeline, and other modes using weight-to-value ratios derived from imported commodities that vary by country, mode, and commodity.

**Notes:** 1 metric tonne = 1.1023 short tons. Mode "Other" includes shipments transported by mail, other and unknown modes, and shipments through Foreign Trade Zones. Totals for the most recent year differ slightly from the Freight Analysis Framework due to variations in coverage and FAF conversion of values to constant dollars. Numbers may not add to totals due to rounding.

**TABLE 2-6M. DOMESTIC MODE OF EXPORTS AND IMPORTS BY TONNAGE AND VALUE: 2007 AND 2040**

**Source:** U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, version 3.1, 2010.

**TABLE 2-8M. VALUE AND TONNAGE OF U.S. MERCHANDISE TRADE WITH CANADA AND MEXICO BY TRANSPORTATION MODE: 1998-2009**

**Source:** U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, North American Transborder Freight Data, available at [www.bts.gov/transborder](http://www.bts.gov/transborder) as of July 27, 2010; U.S. Department of Commerce, Census Bureau, Foreign Trade Division, *FT920 - U.S. Merchandise Trade: Selected Highlights* (Washington, DC: annual issues).

**Table 3-1M. Kilometers of Infrastructure by Transportation Mode: 1980-2008**

	1980	1990	2000	2008	Percent change, 1980 to 2008
<b>Public roads, route kilometers</b>	6,211,518	6,222,926	6,358,386	6,532,576	5.2
National Highway System (NHS)	N	N	417,439	264,075	N
Interstates	66,173	72,536	75,109	75,657	14.3
Other NHS	N	N	184,287	188,418	N
Other	N	N	6,098,989	6,268,500	N
<b>Strategic Highway Corridor Network (STRAHNET)</b>	N	N	99,881	100,182	N
Interstate	N	N	75,113	75,657	N
Non-Interstate	N	N	24,765	24,525	N
<b>Railroad</b>	<sup>1</sup> 294,620	283,085	274,400	224,213	-23.9
Class I	NA	214,337	194,073	151,403	N
Regional	NA	29,570	33,759	26,859	N
Local	NA	39,165	46,567	45,951	N
<b>Inland waterways</b>					
Navigable channels	17,702	17,702	17,702	17,702	0.0
Great Lakes-St. Lawrence Seaway	3,769	3,769	3,769	3,769	0.0
<b>Pipelines</b>					
Oil	351,453	335,938	284,834	278,404	-20.8
Gas	1,692,588	1,913,743	2,203,573	2,454,136	45.0

**Key:** N = not applicable; NA = not available.

<sup>1</sup>Excludes Class III railroads.

**Note:** 1 kilometer = .6214 miles.

**TABLE 3-1M. KILOMETERS OF INFRASTRUCTURE BY TRANSPORTATION MODE: 1980-2008**

**Sources: Public roads:** U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*

(Washington, DC: annual issues), tables HM-16 and HM-49, available at

[www.fhwa.dot.gov/policyinformation/statistics/2008/](http://www.fhwa.dot.gov/policyinformation/statistics/2008/) as of April 20, 2010. **Rail:** Association of American Railroads, *Railroad Facts*

(Washington, DC: annual issues). **Navigable channels:** U.S. Army Corps of Engineers, *A Citizen's Guide to the USACE*, available at

[www.corpsreform.org/sitepages/downloads/CitzGuideChptr1.pdf](http://www.corpsreform.org/sitepages/downloads/CitzGuideChptr1.pdf) as of April 25, 2010. **Great Lakes-St. Lawrence Seaway:** The

St. Lawrence Seaway Development Corporation, "The Seaway," available at

[www.greatlakes-seaway.com/en/seaway/facts/index.html](http://www.greatlakes-seaway.com/en/seaway/facts/index.html) as of April 25, 2010. **Oil pipelines: 1980-2000:** Eno Transportation

Foundation, *Transportation in America, 2002* (Washington, DC: 2002). **2001-2008:** U.S. Department of Transportation, Pipeline and

Hazardous Materials Safety Administration, Office of Pipeline Safety, *Pipeline Statistics*, available at

[www.phmsa.dot.gov/pipeline/library/data-stats](http://www.phmsa.dot.gov/pipeline/library/data-stats) as of April 25, 2010. **Gas pipelines:** American Gas Association, *Gas Facts*

(Arlington, VA: annual issues).



**Table 3-3M. Trucks and Truck Kilometers by Average Weight: 1987-2002**

Average weight (kilograms)	1987		1992		1997		2002		Percent Change, 1987 to 2002	
	Number (thousands)	VKT (millions)	Number	VKT						
<b>Total</b>	<b>3,624</b>	<b>144,789</b>	<b>4,008</b>	<b>168,952</b>	<b>4,701</b>	<b>237,972</b>	<b>5,415</b>	<b>234,348</b>	<b>49</b>	<b>62</b>
<b>Light-heavy</b>	<b>1,030</b>	<b>17,328</b>	<b>1,259</b>	<b>22,550</b>	<b>1,436</b>	<b>31,888</b>	<b>1,914</b>	<b>42,252</b>	<b>86</b>	<b>144</b>
4,536 to 6,350	525	8,754	694	12,874	819	18,509	1,142	24,439	118	179
6,351 to 7,257	242	4,407	282	4,791	316	6,359	396	9,508	64	116
7,258 to 8,845	263	4,168	282	4,884	301	7,020	376	8,306	43	99
<b>Medium-heavy</b>	<b>766</b>	<b>12,200</b>	<b>732</b>	<b>13,103</b>	<b>729</b>	<b>16,301</b>	<b>910</b>	<b>18,934</b>	<b>19</b>	<b>55</b>
8,846 to 11,793	766	12,200	732	13,103	729	16,301	910	18,934	19	55
<b>Heavy-heavy</b>	<b>1,829</b>	<b>115,261</b>	<b>2,017</b>	<b>133,299</b>	<b>2,536</b>	<b>189,782</b>	<b>2,591</b>	<b>173,161</b>	<b>42</b>	<b>50</b>
11,794 to 14,969	377	8,707	387	9,163	428	11,414	437	9,407	16	8
14,969 to 18,144	209	6,619	233	8,505	257	10,612	229	6,066	10	-8
18,144 to 22,680	292	12,271	339	15,484	400	21,046	318	10,778	9	-12
22,680 to 27,216	188	11,517	227	13,998	311	20,361	327	14,404	74	25
27,216 to 36,287	723	73,123	781	82,143	1,070	120,250	1,179	124,701	63	71
36,288 to 45,359	28	2,018	33	2,460	46	3,906	69	4,747	144	135
45,360 to 58,967	8	708	12	1,181	18	1,691	26	2,528	238	257
58,967 or more	4	298	5	365	6	502	6	530	43	78

**Key:** VKT = vehicle kilometers traveled.

<sup>1</sup>Excludes trucks with an average weight of 4,536 kilograms (10,000 pounds) or less.

**Notes:** 1 kilometer = .6214 miles; 1 kilogram = 2.2046 pounds. Weight includes the empty weight of the vehicle plus the average weight of the load carried. Numbers may not add to totals due to rounding.



**TABLE 3-3M. TRUCKS AND TRUCK KILOMETERS BY AVERAGE WEIGHT: 1987-2002**

**Sources:** U.S. Department of Commerce, Census Bureau, *2002 Vehicle Inventory and Use Survey: United States*,

EC02TV-US (Washington, DC: 2004), available at [www.census.gov/prod/ec02/ec02tv-us.pdf](http://www.census.gov/prod/ec02/ec02tv-us.pdf) as of April 13, 2009; U.S.

Department of Commerce, Census Bureau, *1992 Truck Inventory and Use Survey: United States*, TC92-T-52 (Washington, DC:

1995), available at [www.census.gov/prod/ec97/97tv-us.pdf](http://www.census.gov/prod/ec97/97tv-us.pdf) as of June 2, 2010.



**Table 3-6M. Trucks, Truck Kilometers, and Average Distance by Range of Operations and Jurisdictions: 2002**

	<b>Number of Trucks (thousands)</b>	<b>Truck Kilometers (millions)</b>	<b>Kilometers per Truck (thousands)</b>
<b>Total</b>	<b>5,521</b>	<b>233,622</b>	<b>42</b>
Off the road	183	3,641	20
50 miles or less	2,942	68,444	23
51 to 100 miles	685	30,836	45
101 to 200 miles	244	18,957	78
201 to 500 miles	232	28,194	122
501 miles or more	293	42,978	147
Not reported	716	40,330	56
Not applicable	226	241	1
Operated in Canada	2	116	69
Operated in Mexico	2	47	30
Operated within the home base state	4,196	136,746	33
Operated in states other than the home base state	496	65,821	133
Not reported	599	30,650	51
Not applicable	226	241	1

**Notes:** 1 kilometer = 0.6214 miles. Includes trucks registered to companies and vehicles in the United States except pick-ups, minivans, other light cars, and sport utility vehicles. Numbers may not add to totals due to rounding.



**TABLE 3-6M. TRUCKS, TRUCK KILOMETERS, AND AVERAGE DISTANCE BY RANGE OF OPERATIONS AND JURISDICTIONS: 2002**  
**Source:** U.S. Department of Commerce, Census Bureau, *2002 Vehicle Inventory and Use Survey: United States*, EC02TV-US, table 3a (Washington, DC: 2004), available at [www.census.gov/prod/ec02/ec02tv-us.pdf](http://www.census.gov/prod/ec02/ec02tv-us.pdf) as of June 2, 2010.

**Table 3-7M. Truck Kilometers by Products Carried: 2002<sup>1</sup>**

Products carried	Millions of kilometers
<b>Total<sup>2</sup></b>	<b>233,622</b>
Animals and fish, live	1,182
Animal feed and products of animal origin	3,360
Grains, cereal	2,201
All other agricultural products	4,282
Basic chemicals	1,410
Fertilizers and fertilizer materials	2,681
Pharmaceutical products	491
All other chemical products and preparations	2,174
Alcoholic beverages	1,808
Bakery and milled grain products	5,717
Meat, seafood, and their preparations	4,918
Tobacco products	717
All other prepared foodstuffs	11,953
Logs and other wood in the rough	1,849
Paper or paperboard articles	5,052
Printed products	1,231
Pulp, newsprint, paper, paperboard	3,115
Wood products	5,730
Articles of base metal	5,301
Base metal in primary or semifinished forms	4,637
Nonmetallic mineral products	4,906
Tools, nonpowered	12,487
Tools, powered	10,424
Electronic and other electrical equipment	4,866
Furniture, mattresses, lamps, etc.	3,288
Machinery	5,190
Miscellaneous manufactured products	6,449
Precision instruments and apparatus	1,181
Textile, leather, and related articles	2,475
Vehicles, including parts	6,186
All other transportation equipment	1,024
Coal	484
Crude petroleum	212
Gravel or crushed stone	4,490
Metallic ores and concentrates	73
Monumental or building stone	744
Natural sands	1,753
All other nonmetallic minerals	802
Fuel oils	1,983
Gasoline and aviation turbine fuel	1,365
Plastic and rubber	3,850
All other coal and refined petroleum products	1,886
Hazardous waste (EPA manifest)	306
All other waste and scrape (non-EPA manifest)	4,260
Recyclable products	1,484
Mail and courier parcels	7,660
Empty shipping containers	1,278
Passengers	440
Mixed freight	23,590
Products, equipment, or materials not elsewhere classified	426
Products not specified	10,232
Not applicable <sup>3</sup>	241
No product carried	46,632

<sup>1</sup>Excludes pickups, panels, minivans, sport utilities, and station wagons.

<sup>2</sup>Detail lines may not add to total because multiple products/hazardous materials may be carried at the same time.

<sup>3</sup>Vehicles not in use. When the respondent had partial-year ownership of the vehicle, annual miles were adjusted to reflect miles traveled when not owned by the respondent.

**Note:** 1 kilometer = 0.6214 miles.

**TABLE 3-7M. TRUCK KILOMETERS BY PRODUCTS CARRIED: 2002**

**Source:** U.S. Department of Commerce, Census Bureau, *2002 Vehicle Inventory and Use Survey: United States*, EC02TV-US (Washington, DC: 2004), available at [www.census.gov/prod/ec02/ec02tv-us.pdf](http://www.census.gov/prod/ec02/ec02tv-us.pdf) as of June 2, 2010.

**Table 3-10M. Top 25 Airports by Landed Weight of All-Cargo Operations: 2000-2008<sup>1</sup>**

Airport	2008 Rank	Landed weight (thousands of metric tonnes)				
		2000	2005	2006	2007	2008
Memphis, TN (Memphis International)	1	5,732	8,476	8,550	8,865	8,845
Anchorage, AK (Ted Stevens Anchorage International) <sup>2</sup>	2	7,333	9,402	9,605	9,582	8,143
Louisville, KY (Louisville International-Standiford Field)	3	3,617	4,165	4,550	4,732	4,738
Miami, FL (Miami International)	4	2,657	3,221	3,258	3,370	3,170
Los Angeles, CA (Los Angeles International)	5	2,624	2,655	3,290	3,112	2,609
Indianapolis, IN (Indianapolis International)	6	2,616	2,309	2,383	2,406	2,326
New York, NY (John F. Kennedy International)	7	2,534	2,550	2,372	2,320	2,016
Chicago, IL (O'Hare International)	8	1,870	2,188	2,003	1,996	1,908
Oakland, CA (Metropolitan Oakland International)	9	1,643	1,631	1,631	1,643	1,580
Newark, NJ (Newark Liberty International)	10	1,779	1,697	1,694	1,700	1,566
Fort Worth, TX (Dallas/Fort Worth International)	11	1,534	1,502	1,562	1,591	1,464
Ontario, CA (Ontario International)	12	1,107	1,219	1,271	1,265	1,225
Philadelphia, PA (Philadelphia International)	13	1,319	1,271	1,239	1,248	1,146
Atlanta, GA (William B. Hartsfield International)	14	989	920	1,070	1,144	1,059
Honolulu, HI (Honolulu International)	15	628	751	888	1,028	936
San Francisco, CA (San Francisco International)	16	1,149	723	752	943	703
Houston, TX (George Bush Intercontinental)	17	435	644	631	698	684
Seattle, WA (Seattle-Tacoma International)	18	961	643	643	627	677
Chicago/Rockford, IL (Chicago/Rockford International)	19	593	632	631	669	644
Phoenix, AZ (Sky Harbor International)	20	835	706	659	645	612
Portland, OR (Portland International)	21	800	677	662	647	595
Denver, CO (Denver International)	22	817	692	645	583	567
Minneapolis, MN (Minneapolis-St Paul International/Wold-Chamberlain)	23	564	637	562	555	510
Salt Lake City, UT (Salt Lake City International)	24	681	535	497	486	473
Boston, MA (General Edward Lawrence Logan International)	25	638	521	499	481	446
<b>Top 25 airports<sup>3</sup></b>		<b>47,520</b>	<b>50,762</b>	<b>51,686</b>	<b>52,359</b>	<b>48,645</b>
<b>United States, all airports<sup>4</sup></b>		<b>67,807</b>	<b>69,029</b>	<b>69,275</b>	<b>69,476</b>	<b>64,666</b>
<b>Top 25 as % of U.S. total</b>		<b>70.1</b>	<b>73.5</b>	<b>74.6</b>	<b>75.4</b>	<b>75.2</b>

<sup>1</sup>Dedicated to the exclusive transportation of cargo, all-cargo operations do not include aircraft carrying passengers that also may be carrying cargo. Aircraft landed weight is the certificated maximum gross landed weight of the aircraft as specified by the aircraft manufacturers.

<sup>2</sup>Anchorage includes a large proportion of all-cargo operations in-transit.

<sup>3</sup>Airport rankings change each year. Totals represent the top 25 airports for each year, not necessarily the top 25 airports listed here for 2008.

<sup>4</sup>Limited to airports with an aggregate landed weight in excess of 100 million pounds (50,000 short tons) annually.

**Note:** 1 metric tonne = 1.1023 short tons.



**TABLE 3-10M. TOP 25 AIRPORTS BY LANDED WEIGHT OF ALL-CARGO OPERATIONS: 2000-2008**

**Source:** U.S. Department of Transportation, Federal Aviation Administration, Air Carrier Activity Information System (ACAIS) database, All-Cargo Data, available at

[www.faa.gov/airports\\_airtraffic/airports/planning\\_capacity/passenger\\_allcargo\\_stats/passenger/media/cy07\\_cargo.pdf](http://www.faa.gov/airports_airtraffic/airports/planning_capacity/passenger_allcargo_stats/passenger/media/cy07_cargo.pdf) as of July 7, 2010.



**Table 5-7M. Fuel Consumption by Transportation Mode: 1980-2008**

	1980	1990	2000	2007	2008
<b>Highway</b>					
Gasoline, diesel and other fuels (million liters)	435,125	494,909	615,273	(R) 666,880	646,349
Truck, total	75,549	92,695	133,342	(R) 146,061	138,922
Single-unit 2-axle 6-tire or more truck	26,204	31,631	36,196	(R) 38,016	37,429
Combination truck	49,345	61,064	97,146	(R) 108,045	101,493
Truck (percent of total)	17.4	18.7	21.7	21.9	21.5
<b>Rail, Class I (in freight service)</b>					
Distillate / diesel fuel (million liters)	14,777	11,790	14,005	15,375	14,709
<b>Water</b>					
Residual fuel oil (million liters)	33,883	23,944	24,262	23,948	19,174
Distillate / diesel fuel oil (million liters)	5,594	7,816	8,558	7,282	4,495
Gasoline (million liters)	3,982	4,921	4,254	4,624	4,301
<b>Pipeline</b>					
Natural gas (million cubic meters)	17,970	18,684	18,185	(R) 17,595	18,348

**Key:** R = revised.

**Notes:** 1 liter = 0.2642 gallons; 1 cubic meter = 35.3147 cubic feet.

**Table 5-8M. Single-Unit Truck Fuel Consumption and Travel: 1980-2008**

	1980	1990	2000	2007	2008
Number registered (thousands)	4,374	4,487	5,926	6,807	6,791
Vehicle kilometers (millions)	64,070	83,523	113,453	(R) 131,983	135,100
Fuel consumed (million liters)	26,204	31,631	36,196	(R) 38,017	37,429
Average kilometers traveled per vehicle	14,649	18,614	19,145	(R) 19,390	19,894
Average kilometers traveled per liter	2.4	2.6	3.1	3.5	3.6
Average fuel consumed per vehicle (liter)	5,991	7,050	6,108	(R) 5,585	5,512

**Key:** R = revised.

**Notes:** 1 kilometer = 0.6214 miles; 1 liter = 0.2642 gallons.



**TABLE 5-7M. FUEL CONSUMPTION BY TRANSPORTATION MODE: 1980-2008**

**Sources: Highway:** U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics* (Washington, DC: annual issues), table VM-1, available at [www.fhwa.dot.gov/policyinformation/statistics/2008/](http://www.fhwa.dot.gov/policyinformation/statistics/2008/) as of April 20, 2010.

**Rail:** Association of American Railroads, *Railroad Facts* (Washington, DC: annual issues), p. 40. **Water:** U.S. Department of Energy, Energy Information Administration, *Fuel Oil and Kerosene Sales 2008* (Washington, DC: 2009), tables 2, 4, and similar tables in earlier editions. **Pipeline:** U.S. Department of Energy, *Natural Gas Annual 2008* (Washington, DC: January 2010), table 15 and similar tables in earlier editions.

**TABLE 5-8M. SINGLE-UNIT TRUCK FUEL CONSUMPTION AND TRAVEL: 1980-2008**

**Source:** U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics* (Washington, DC: annual issues), table VM-1, available at [www.fhwa.dot.gov/policyinformation/statistics/2008/](http://www.fhwa.dot.gov/policyinformation/statistics/2008/) as of April 25, 2010.

**Table 5-9M. Combination Truck Fuel Consumption and Travel: 1980-2008**

	1980	1990	2000	2007	2008
Number registered (thousands)	1,417	1,709	2,097	2,221	2,216
Vehicle kilometers traveled (millions)	110,521	151,820	217,284	(R) 233,418	230,941
Fuel consumed (million liters)	49,345	61,064	97,145	(R) 108,043	101,493
Average kilometers traveled per vehicle	78,004	88,841	103,635	(R) 105,096	104,222
Average kilometers traveled per liter	2.2	2.5	2.2	2.2	2.3
Average fuel consumed per vehicle (liters)	34,827	35,733	46,334	(R) 48,646	45,803

**Key:** R = revised.

**Notes:** 1 kilometer = 0.6214 miles; 1 liter = 0.2642 gallons.

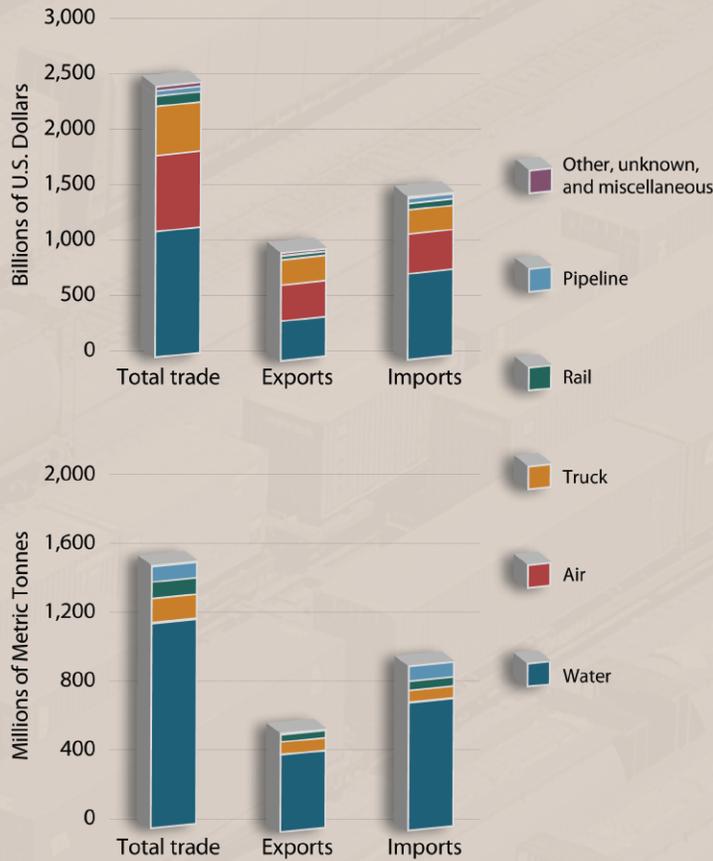


**TABLE 5-9M. COMBINATION TRUCK FUEL CONSUMPTION AND TRAVEL: 1980-2008**

**Source:** U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics* (Washington, DC: annual issues), table VM-1, available at [www.fhwa.dot.gov/policyinformation/statistics/2008/](http://www.fhwa.dot.gov/policyinformation/statistics/2008/) as of April 25, 2010.



**Figure 2-2M. U.S. International Merchandise Trade by Transportation Mode: 2009**



**Notes:** 1 metric tonne = 1.1023 short tons. The U.S. Department of Transportation (USDOT), Research and Innovative Technology Administration, Bureau of Transportation Statistics estimated 2009 weight data for truck, rail, and pipeline modes using value-to-weight ratios derived from imported commodities. Totals for the most recent year differ slightly from the USDOT, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework (FAF) due to variations in coverage and FAF conversion of values to constant dollars. Numbers may not add to totals due to rounding.

**FIGURE 2-2M. U.S. INTERNATIONAL MERCHANDISE TRADE BY TRANSPORTATION MODE: 2009**

**Sources: Total, water and air data:** U.S. Department of Commerce, U.S. Census Bureau, Foreign Trade Division, *FT920 - U.S. Merchandise Trade: Selected Highlights* (Washington, DC: January 2010). **Truck, rail, and pipeline data:** U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, North American Transborder Freight Data, available at [www.bts.gov/transborder](http://www.bts.gov/transborder) as of August 15, 2010. **Other, unknown and miscellaneous data:** special tabulation, August 2010.

