

2015

Pocket Guide to Transportation



U.S. Department of Transportation
Bureau of Transportation Statistics

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Pocket Guide to Transportation



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Bureau of Transportation Statistics

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ABOUT THE *POCKET GUIDE TO TRANSPORTATION*

The *Pocket Guide to Transportation* is a compilation of statistics that provide key information and highlight major trends on the U.S. transportation system. Intended as a compact reference, it supports the Bureau of Transportation Statistics mission to create, manage, and share transportation statistical knowledge.

Many of the tables and figures within this publication are derived from *National Transportation Statistics* available at www.bts.gov.

BTS welcomes comments and suggestions for improving this publication.

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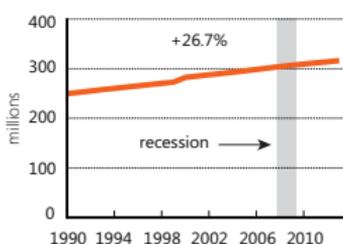
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A DYNAMIC SYSTEM

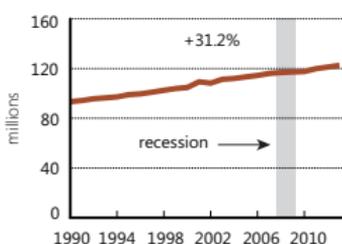
America's transportation system continues to change along with the population, economy, and employment. The following social and economic trends present a backdrop for the transportation data in this publication.

The American Landscape: 1990–2013

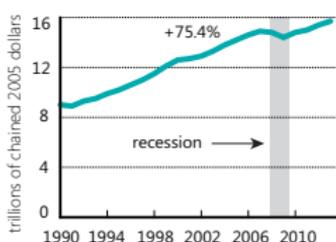
Resident population



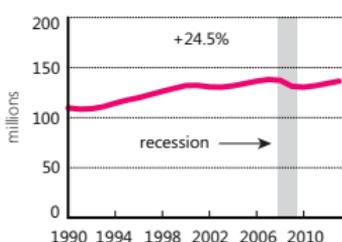
Households



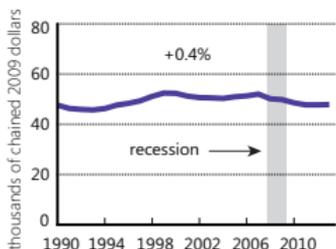
Real GDP



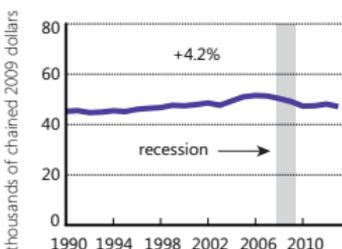
Employment^a



Median household income^b



Average household expenditures^b



^aNonfarm payroll employment. ^bConverted to chained 2009 dollars by the Bureau of Transportation Statistics using the CPI-U-RS price index.

Key: GDP = gross domestic product.

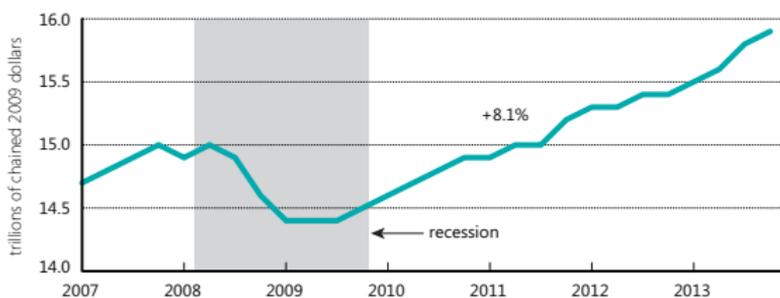
Note: Graphs with same color trend lines have identical scales.

Sources: Population, Households, GDP, Income, Expenditures—as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, table A, available at www.bts.gov as of September 2014.

Employment—U.S. Department of Labor, Bureau of Labor Statistics, available at www.bls.gov as of September 2014.

A Closer Look: Jan. 2007–Dec. 2013

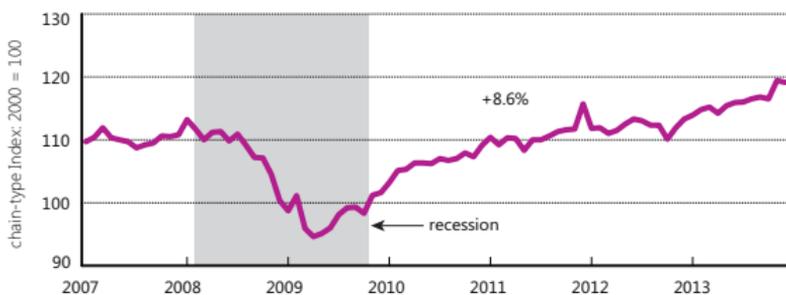
Real GDP



Employment^a



Transportation Services Index



^aNonfarm payroll employment.

Key: GDP = gross domestic product.

Note: Graph scales are not comparable.

Sources: **GDP**—U.S. Department of Commerce, Bureau of Economic Analysis, available at www.bea.gov as of September 2014. **Employment**—U.S. Department of Labor, Bureau of Labor Statistics, available at www.bls.gov as of September 2014. **TSI**—U.S. Department of Transportation, Bureau of Transportation Statistics, available at www.bts.gov as of September 2014.

1 INFRASTRUCTURE

The U.S. transportation system consists of a vast network of roads, bridges, airports, railroads, transit systems, ports, waterways, and pipelines. The American people rely on this interconnected system to get to work, travel, conduct business, and ship goods. The transportation system links regions and connects the Nation to the rest of the world.

1-1 Transportation Network Length miles

Mode	2002	2012
Highway		
Public roads	3,966,485	4,092,730
Public road lanes ^a	8,295,171	8,606,003
Pipeline		
Gas distribution	1,899,845	2,139,071
Gas transmission and gathering	325,741	319,856
Rail		
Class I freight railroad	100,125	95,264
Amtrak	23,000	21,334
Transit		
Commuter rail ^b	6,831	7,722
Heavy rail ^b	1,572	1,622
Light rail ^b	960	1,724
Water		
Navigable waterways ^c	25,000	25,000

^aMeasured in lane-miles. ^bMeasured in directional route-miles. ^cEstimated length of domestic waterways.

Sources: Highway, Rail, Transit, Water— as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, tables 1-1, 1-6, and 1-10, available at www.bts.gov as of September 2014. **Pipeline**—U.S. Department of Transportation, Pipeline and Hazardous Materials Administration, available at phmsa.dot.gov/pipeline/library/data-stats as of September 2014.

1-2 Transportation Facilities number

Mode	2002	2012
Air		
Certificated airports ^a	633	542
General aviation airports	18,939	19,169
Highway		
Bridges	590,868	607,378
Pipeline		
LNG facilities	U	132
Rail		
Amtrak stations	515	518
Transit rail		
Commuter rail stations	1,150	1,244
Heavy rail stations	994	1,044
Light rail stations	640	928
Water		
Ports ^b	190	180
Cargo handling docks ^c	*	8,214
Lock chambers	275	239

*2002 cargo handling docks number is omitted because it is not comparable to 2012 number due to a change in data collection methodology.

^aCertificated airports serve air carrier operations with aircrafts seating more than nine passengers. ^bPorts handling over 250,000 short tons. ^cData for 2002 and 2012 are not comparable due to changes in data coverage.

Key: LNG = liquified natural gas; U = Data are unavailable.

Sources: **Air, Highway, Rail**—as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, tables 1-3, 1-7, and 1-28, available at www.bts.gov as of September 2014. **Pipeline**—U.S. Department of Transportation, Pipeline and Hazardous Materials Administration, available at phmsa.dot.gov/pipeline/library/data-stats as of September 2014. **Transit**—U.S. Department of Transportation, National Transit Database, available at www.ntdprogram.gov as of September 2014. **Water**—U.S. Army Corps of Engineers, Navigation Data Center, available at www.navigationdata-center.us as of September 2014.

1-3 Transportation Vehicles

number

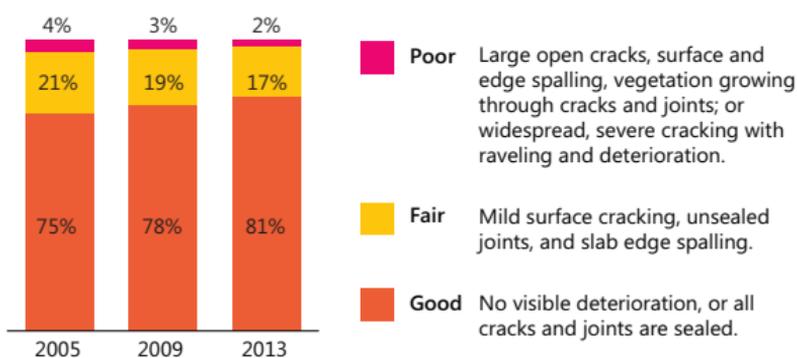
Mode	2002	2012
Air		
Air carrier aircraft	8,194	7,422
General aviation aircraft	211,244	209,043
Highway		
Light-duty vehicle ^a	220,931,982	233,760,558
Truck	7,927,280	10,659,380
Motorcycle	5,004,156	8,454,939
Rail		
Class I freight locomotive	20,506	24,707
Class I freight car	477,751	380,641
Amtrak locomotive	372	485
Amtrak car	2,896	2,090
Transit rail		
Commuter rail ^b	5,631	6,938
Heavy rail ^b	10,849	10,469
Light rail ^b	1,448	2,348
Water		
Nonsel­f-propelled vessel	32,381	31,550
Self-propelled vessel	8,621	8,980
Oceangoing vessel	261	198
Recreational boat	12,854,054	12,101,936

^aIncludes passenger cars, light trucks, vans, and sport utility vehicles. ^bIncludes revenue vehicles available for maximum service.

Source: as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-11, available at www.bts.gov as of September 2014.

1-4 Airport Runway Pavement Condition

percent of NPIAS runways

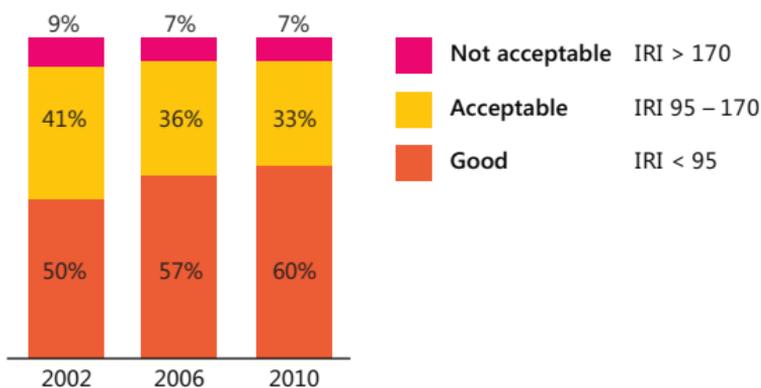


Note: National Plan of Integrated Airport Systems (NPIAS) airports include commercial service airports, reliever airports, and selected general aviation airports.

Source: as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-25, available at www.bts.gov as of September 2014.

1-5 National Highway System Pavement Condition

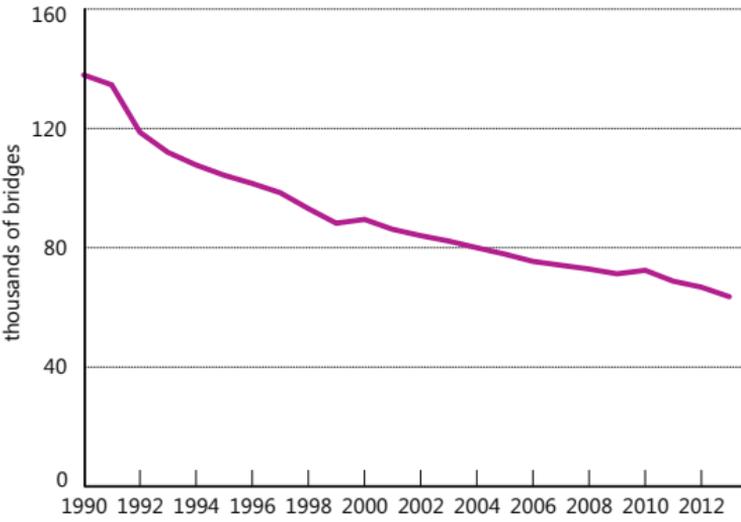
percent of vehicle-miles traveled



Note: Pavement condition is measured by the International Roughness Index (IRI).

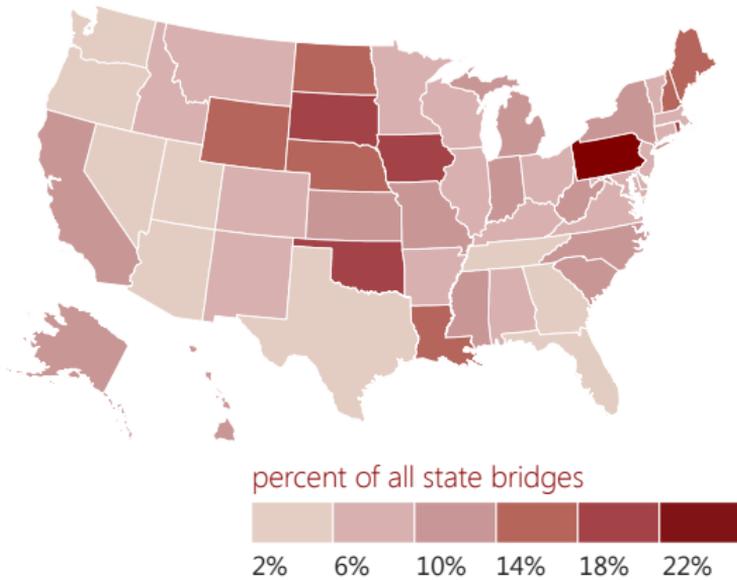
Source: U.S. Department of Transportation, Federal Highway Administration, *2013 Status of the Nation's Highways, Bridges, and Transit: Conditions & Performance*, available at www.fhwa.dot.gov/policy/2013cpr as of September 2014.

1-6 Structurally Deficient Bridges: 1990–2013



Source: U.S. Department of Transportation, Federal Highway Administration, National Bridge Inventory, available at www.fhwa.dot.gov/bridge/nbi.cfm as of September 2014.

1-7 Structurally Deficient Bridges by State: 2013



Source: U.S. Department of Transportation, Federal Highway Administration, National Bridge Inventory, available at www.fhwa.dot.gov/bridge/nbi.cfm as of September 2014.

2 MOVING PEOPLE

The U.S. transportation system makes personal mobility possible. Every day people use the transportation system to get to and from work, school, and shopping and for recreation, social, and personal purposes.

2-1 Vehicle-Miles Traveled millions

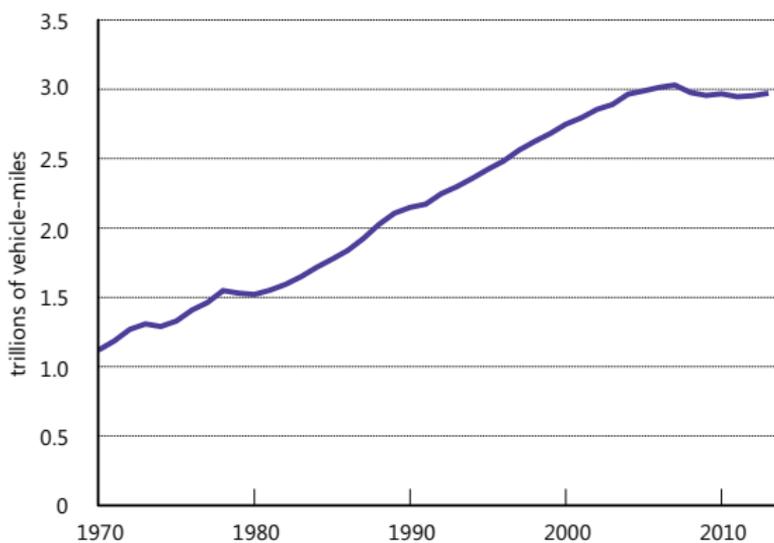
Mode	2002	2012
Air		
U.S. air carrier, domestic ^a	5,613	5,956
Highway		
Light-duty vehicle ^{b,c}	*	2,664,445
Motorcycle ^b	*	21,298
Truck ^b	*	268,318
Bus ^b	*	14,755
Passenger rail		
Amtrak ^d	379	319
Commuter rail ^d	284	318
Heavy rail ^d	621	638
Light rail ^d	61	91

*2002 highway data are omitted because they are not comparable to 2012 data due to a change in vehicle occupancy rates derived from National Household Travel Surveys.

^aMeasured in revenue aircraft-miles. ^bData for 2002 and 2012 may not be comparable due to changes in methodology. ^cIncludes passenger cars, light trucks, vans, and sport utility vehicles. ^dMeasured in car-miles.

Source: as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-35, available at www.bts.gov as of September 2014.

2-2 Highway Travel: 1970–2013



Note: Data for 2007 and later years may not be comparable to previous years due to changes in methodology.

Source: U.S. Department of Transportation, Federal Highway Administration, *Traffic Volume Trends*, available at www.fhwa.dot.gov as of September 2014.

2-3 Passenger-Miles Traveled

millions

Mode	2002	2012
Air		
U.S. air carrier, domestic	483,525	580,501
Highway		
Light-duty vehicle ^a	*	3,669,821
Motorcycle	*	22,940
Truck	*	268,318
Bus	*	312,797
Passenger rail		
Amtrak ^b	5,468	6,804
Commuter rail	9,500	11,121
Heavy rail	13,663	17,516
Light rail	1,432	2,316

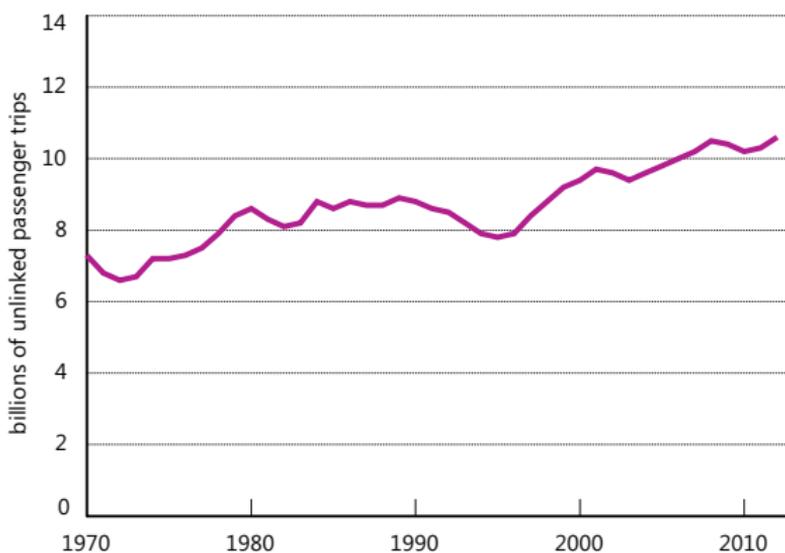
*2002 highway data are omitted because they are not comparable to 2012 data due to a change in vehicle occupancy rates derived from National Household Travel Surveys.

^aIncludes passenger cars, light trucks, vans, and sport utility vehicles.

^bMeasured in revenue passenger-miles.

Source: as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-40, available at www.bts.gov as of September 2014.

2-4 Transit Ridership: 1970–2012



Note: Includes bus, commuter rail, demand response, heavy rail, light rail, trolley bus, ferry boat, aerial tramway, automated guideway, cable car, inclined plane, monorail, and other.

Source: American Public Transportation Association, *Public Transportation Fact Book*, available at www.apta.com as of September 2014.

2-5 Daily Passenger Travel

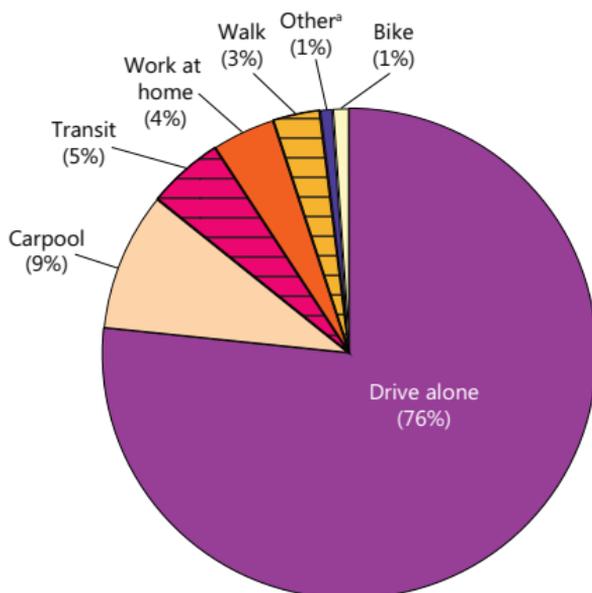
	1995	2001	2009
Travel per person			
Daily person trips	4.3	4.1	3.8
Daily person-miles of travel	38.7	40.3	36.1
Travel per driver			
Daily vehicle trips	3.6	3.4	3.0
Daily vehicle-miles of travel	32.1	32.7	29.0
Average commute			
Length in miles	11.6	12.1	11.8
Travel time in minutes	20.7	23.3	23.9
Percent of trips by mode			
Private vehicle	89.3	86.4	83.4
Bus ^a	3.0	2.8	3.3
Rail ^b	0.6	0.6	0.6
Walk	5.5	8.7	10.4
Bike	0.9	0.8	1.0
Air	0.1	0.1	0.1
Other ^c	0.5	0.6	1.1

^aIncludes local transit bus, commuter bus, school bus, charter/tour bus, city-to-city bus. ^bIncludes subway/elevated rail, street car/trolley, and Amtrak/inter-city train. ^cIncludes ferry, hotel/airport shuttle, light electric vehicle, limousine, passenger line/ferry, sailboat/motorboat/yacht, ship/cruise, special transit, taxicab, other, and unknown.

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

Source: U.S. Department of Transportation, Federal Highway Administration, *2009 National Household Travel Survey*, available at nhts.ornl.gov as of September 2014.

2-6 Commute Mode Share: 2013

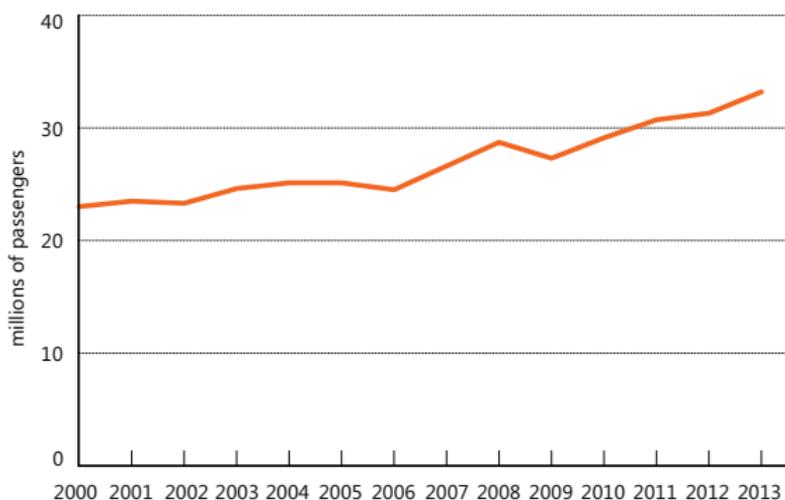


^a Includes motorcycle, taxi, and other means.

Notes: Percents do not add to 100 due to rounding. The *American Community Survey* asks for the mode usually used by the respondent to get to work. For more than one mode of transportation, respondents select the mode used for most of the distance traveled.

Source: U.S. Department of Commerce, U.S. Census Bureau, *American Community Survey*, 1-Year Estimates, available at www.census.gov/acs as of September 2014.

2-7 Amtrak Ridership: FY2000–FY2013



Source: U.S. Department of Transportation, Federal Railroad Administration, available at safetydata.fra.dot.gov/OfficeofSafety as of September 2014.

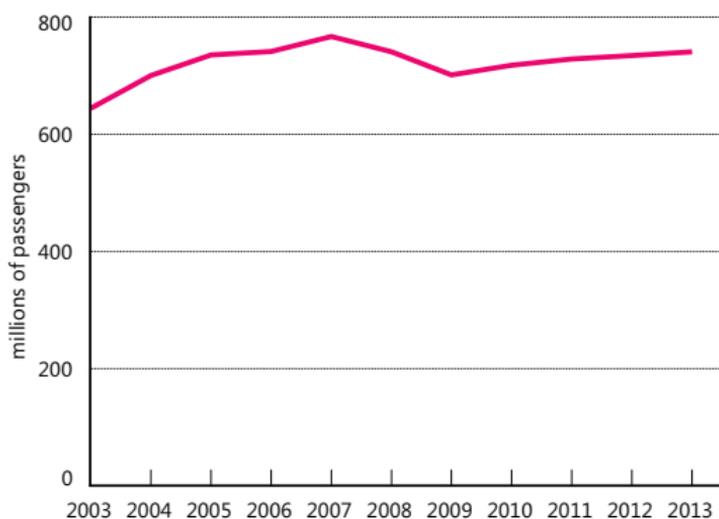
2-8 Top 10 Amtrak Stations: FY2013 by passengers

Rank	Station	'12-'13 change	Millions of passengers
1	New York Penn Station, NY	▲ 0.7%	9.6
2	Washington, DC	▲ 0.4%	5.0
3	Philadelphia 30th St., PA	▲ 1.4%	4.1
4	Chicago, IL	▲ 1.1%	3.5
5	Los Angeles, CA	▼ -0.8%	1.6
6	Boston South Station, MA	▼ -0.9%	1.4
7	Sacramento, CA	▼ -4.6%	1.1
8	Baltimore, MD	▲ 3.6%	1.1
9	Albany-Rensselaer, NY	▼ -0.6%	0.8
10	New Haven, CT	▼ -1.3%	0.7

Note: Includes passenger boardings and alightings.

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, *State Transportation Statistics*, table 4-5, available at www.bts.gov as of September 2014.

2-9 U.S. Air Carrier Passenger Traffic: 2003-2013



Note: Includes passenger enplanements on scheduled services only.

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, Office of Airline Information, T-100 Market data, available at transtats.bts.gov as of September 2014.

2-10 Top 10 U.S. Airports: 2013 by enplaned passengers

Rank	Station	'12-'13 change	Millions of passengers
1	Atlanta, GA	▼ -1.0%	45.3
2	Los Angeles, CA	▲ 3.2%	32.3
3	Chicago O'Hare, IL	▲ 0.3%	32.2
4	Dallas/Fort Worth, TX	▲ 3.6%	29.0
5	Denver, CO	▼ -1.2%	25.5
6	New York JFK, NY	▲ 2.2%	25.0
7	San Francisco, CA	▲ 1.7%	21.7
8	Charlotte, NC	▲ 6.6%	21.3
9	Las Vegas, NV	▲ 0.2%	19.8
10	Phoenix, AZ	▼ -0.2%	19.5

Note: Includes passenger enplanements on U.S. carrier scheduled domestic and international service and foreign carrier scheduled international service to and from the United States.

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, Office of Airline Information, T-100 Market data, available at transtats.bts.gov as of March 2014.

2-11 Top 10 World Airports: 2013

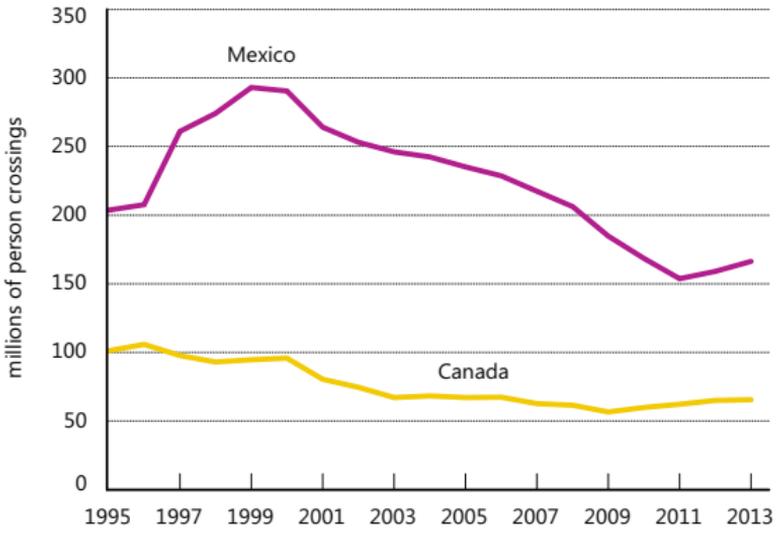
by enplaned, deplaned, and in-transit passengers

Rank	Airport	'12-'13 change	Millions of passengers
1	Atlanta, USA	▼ -1.1%	94.4
2	Beijing, China	▲ 2.2%	83.7
3	London, United Kingdom	▲ 3.3%	72.4
4	Tokyo, Japan	▲ 3.2%	68.9
5	Chicago, USA	▲ 0.2%	66.8
6	Los Angeles, USA	▲ 4.7%	66.7
7	Dubai, United Arab Emirates	▲ 15.2%	66.4
8	Paris, France	▲ 0.7%	62.1
9	Dallas/Fort Worth, USA	▲ 3.2%	60.5
10	Jakarta, Indonesia	▲ 4.1%	60.1

Note: Preliminary data for passengers enplaned, deplaned, and passengers in transit.

Source: Airports Council International, available at www.aci.aero as of September 2014.

2-12 Incoming Land Border Person Crossings: 1995-2013



Note: Excludes drivers and passengers in commercial trucks.

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, Border Crossing/Entry Data, available at transborder.bts.gov as of September 2014.

2-13 Top Land Ports of Entry: 2013

by incoming person crossings

U.S. - Mexico ports of entry

Rank	Port	'12-'13 change	Millions of person crossings
1	San Ysidro, CA	▼ -1.8%	28.1
2	El Paso, TX	▲ 6.7%	23.9
3	Otay Mesa, CA	▲ 13.3%	14.4
4	Laredo, TX	▲ 9.3%	14.2
5	Hidalgo, TX	▲ 1.2%	12.0

U.S. - Canada ports of entry

Rank	Port	'12-'13 change	Millions of person crossings
1	Buffalo-Niagara Falls, NY	▼ -4.2%	13.5
2	Blaine, WA	▲ 6.5%	10.1
3	Detroit, MI	▲ 0.5%	7.7
4	Port Huron, MI	▲ 1.7%	4.1
5	Champlain-Rouses Pt., NY	▲ 1.0%	3.1

Note: Excludes drivers and passengers in commercial trucks.

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, Border Crossing/Entry Data, available at transborder.bts.gov as of September 2014.

3 MOVING GOODS

The freight transportation network links natural resources, manufacturing facilities, labor markets, and customers across the Nation and with international trading partners.

3-1 Freight Shipments Within the U.S. by Mode

Value of shipments (billions of chained 2007 dollars)

Mode	2002	2007	2012
Truck	11,165	12,193	12,653
Rail	468	574	623
Water	113	212	224
Air ^a	372	357	390
Pipeline	309	787	839
Multiple modes	1,367	1,925	1,997
Other ^b	403	603	625
Total	14,196	16,651	17,352

Weight of shipments (millions of tons)

Mode	2002	2007	2012
Truck	11,943	13,336	13,812
Rail	1,978	2,024	2,176
Water	680	655	715
Air ^a	5	5	6
Pipeline	1,574	1,659	1,716
Multiple modes	320	583	635
Other ^b	716	617	602
Total	17,215	18,879	19,662

Ton miles of shipments (billions of ton miles)

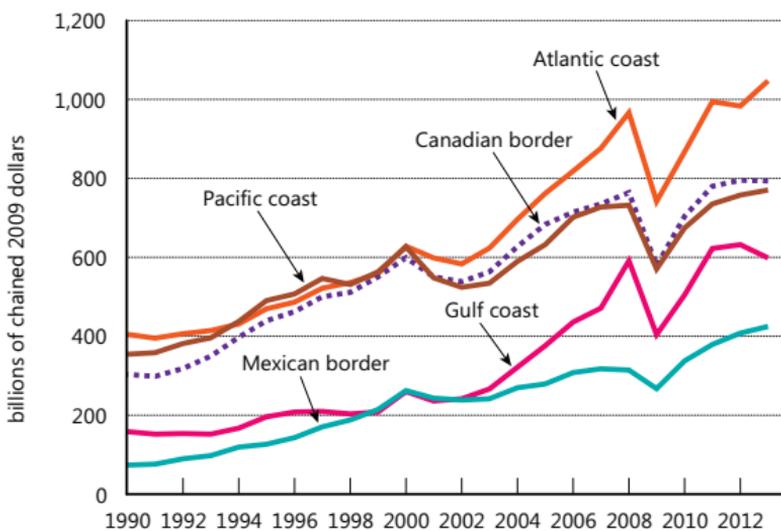
Year	2002	2007	2012
Truck	2,281	2,348	2,505
Rail	1,368	1,522	1,643
Water	421	450	512
Air ^a	6	9	10
Pipeline	881	855	936
Multiple modes	480	469	521
Other ^b	102	86	97
Total	5,539	5,740	6,225

^aIncludes air and truck-air. ^bIncludes other, unknown, and no domestic mode.

Notes: Details may not add to totals due to rounding. Includes domestic trade and the domestic portion of imports and exports.

Source: U.S. Department of Transportation, Federal Highway Administration, Freight Analysis Framework, Version 3.5, available at faf.oml.gov as of September 2014.

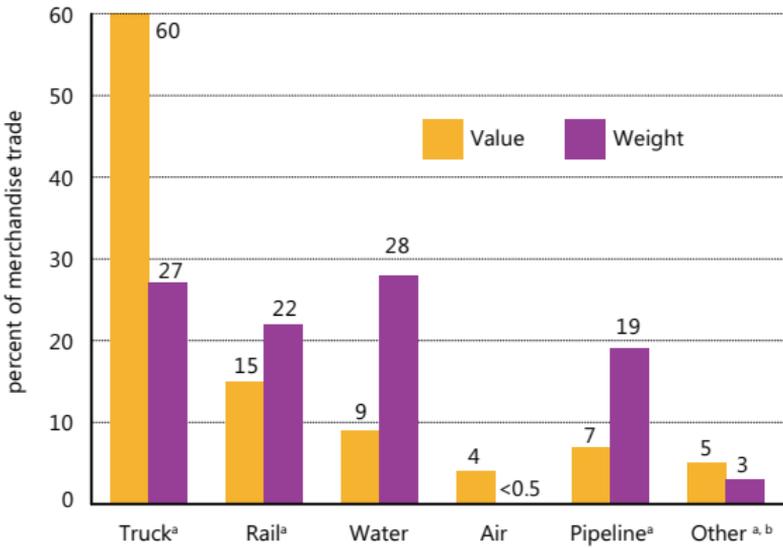
3-2 U.S. Trade by Coasts and Borders: 1990–2013



Note: Includes merchandise trade only.

Sources: **Value**—U.S. Department of Commerce, U.S. Census Bureau, Foreign Trade Division, available at www.census.gov as of June 2014. **Implicit GDP Deflator**—U.S. Department of Commerce, Bureau of Economic Analysis, available at www.bea.gov as of June 2014.

3-3 U.S.-NAFTA Merchandise Trade by Mode: 2013

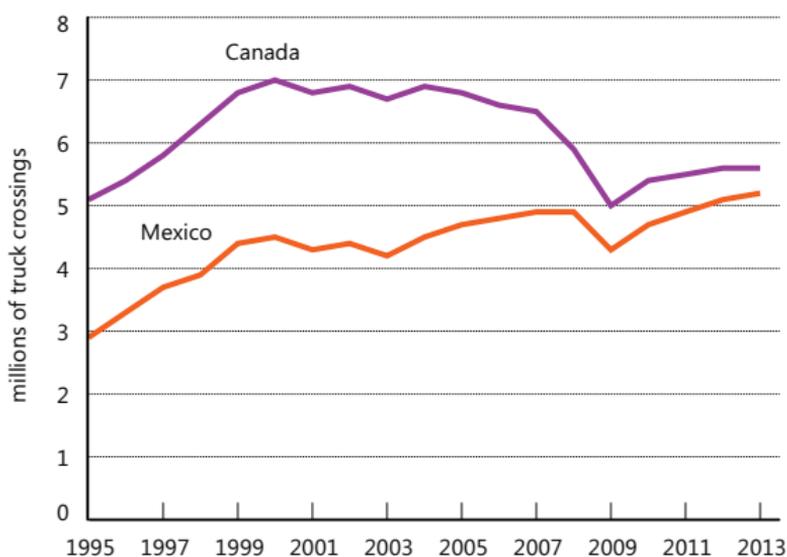


^aExport weights for land modes are estimated by the Bureau of Transportation Statistics using value-to-weight ratios derived from import data. ^bIncludes mail, other, unknown, and shipments through Foreign Trade Zones.

Notes: Percents do not add to 100 due to rounding. North American Free Trade Agreement (NAFTA) refers to U.S. trade with Canada and Mexico.

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, special tabulation and North American Transborder Freight Data, available at transborder.bts.gov as of September 2014.

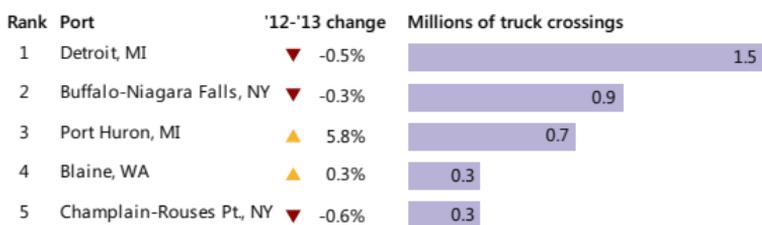
3-4 Incoming Truck Border Crossings: 1995–2013



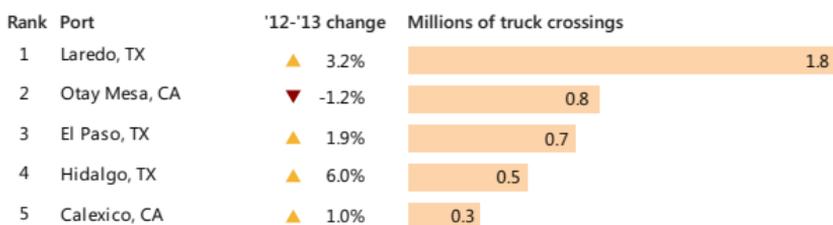
Source: U.S. Department of Transportation, Bureau of Transportation Statistics, Border Crossing/Entry Data, available at transborder.bts.gov as of September 2014.

3-5 Top 5 Truck Ports of Entry: 2013 by incoming truck crossings

U.S. - Canada ports of entry



U.S. - Mexico ports of entry



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, Border Crossing/Entry Data, available at transborder.bts.gov as of September 2014.

3-6 Top 10 U.S. Water Ports: 2012 by short tons

Rank	Port	'11-'12 change	Millions of short tons
1	South Louisiana	▲ 2.3%	252.1
2	Houston, TX	▲ 0.2%	238.2
3	New York/New Jersey	▼ -5.2%	132.0
4	New Orleans, LA	▲ 2.8%	79.3
5	Beaumont, TX	▲ 6.6%	78.5
6	Long Beach, CA	▼ -3.6%	77.4
7	Corpus Christi, TX	▼ -2.2%	69.0
8	Los Angeles, CA	▼ -4.9%	61.8
9	Baton Rouge, LA	▲ 3.7%	60.0
10	Plaquemines, LA	▲ 7.7%	58.3

by TEUs

Rank	Port	'11-'12 change	Millions of TEUs
1	Los Angeles, CA	▼ -3.9%	5.7
2	Long Beach, CA	▲ 0.6%	4.7
3	New York/New Jersey	▼ -0.5%	4.4
4	Savannah, GA	▲ 0.9%	2.3
5	Norfolk, VA	▲ 13.1%	1.7
6	Oakland, CA	▼ -0.2%	1.7
7	Houston, TX	▲ 4.3%	1.5
8	Seattle, WA	▼ -8.8%	1.4
9	Tacoma, WA	▲ 20.0%	1.4
10	Charleston, SC	▲ 7.8%	1.2

Key: TEU = twenty-foot equivalent unit.

Note: Includes domestic and foreign waterborne trade. Excludes foreign empty TEUs.

Source: U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center, available at www.navigationdatacenter.us as of September 2014.

3-7 Top 10 World Container Ports: 2012 by full and empty TEUs

Rank	Port	'11-'12 change	Millions of TEUs
1	Shanghai	▲ 2.5%	32.5
2	Singapore	▲ 5.7%	31.6
3	Hong Kong	▼ -5.2%	23.1
4	Shenzhen	▲ 1.7%	23.0
5	Busan	▲ 5.3%	17.0
6	Ningbo	▲ 14.0%	16.8
7	Quindao	▲ 12.2%	14.6
8	Guangzhou	▲ 1.8%	14.5
9	Dubai	▲ 5.2%	13.3
10	Tianjin	▲ 6.1%	12.3
16	Los Angeles	▲ 1.7%	8.1
20	Long Beach	▼ -0.3%	6.0
24	New York/ New Jersey	▲ 0.5%	5.5

Key: TEU = twenty-foot equivalent unit.

Source: American Association of Port Authorities, World Port Rankings, available at www.aapa-ports.org as of September 2014.

3-8 Top 10 International Trade Gateways: 2013 by value of shipments

Rank	Port		'12-'13 change	Billions of dollars
1	Los Angeles, CA		▼ -1.9%	212.9
2	New York/New Jersey		▼ -3.6%	201.9
3	New York JFK Airport, NY		▲ 3.9%	189.7
4	Long Beach, CA		▲ 8.1%	180.9
5	Laredo, TX		▲ 6.9%	174.6
6	Houston, TX		▼ -5.1%	167.5
7	Detroit, MI		▼ -6.5%	123.4
8	Chicago, IL		▲ 3.6%	122.2
9	Los Angeles Airport, CA		▲ 2.7%	87.6
10	Port Huron, MI		▲ 0.4%	81.8

Key:  = airport,  = land port,  = water port

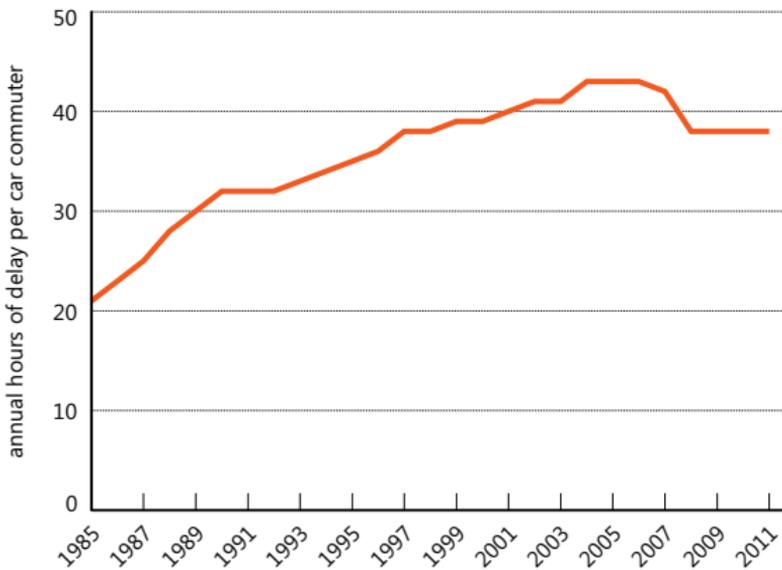
Notes: Air gateways include a low level (generally less than 3% of the total value) of freight shipped through small user-fee airports located in the same area as the gateways listed. Air gateways not identified by airport name (e.g., Chicago, IL) include major airport(s) in the area and small regional airports.

Source: As cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-51, available at www.bts.gov as of December 2014.

4 PERFORMANCE

The physical capacity of the U.S. transportation system has not kept pace with growth in travel and commerce. The resulting congestion and delays have significant impacts on passengers and freight shippers.

4-1 Road Congestion: 1985–2011



Source: Texas A&M Transportation Institute, *2012 Urban Mobility Report*, available at mobility.tamu.edu as of October 2013.

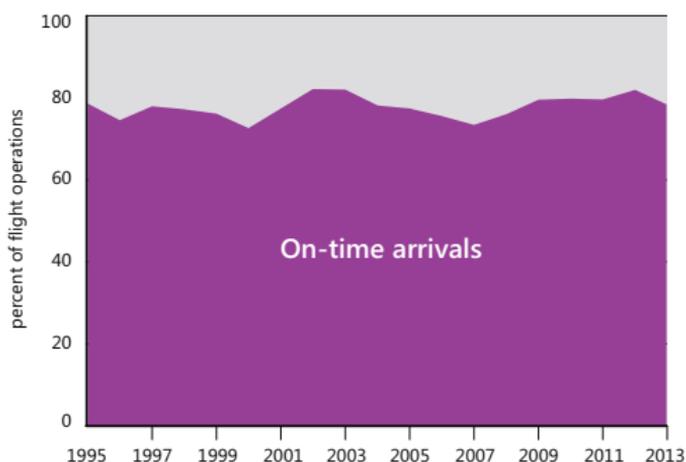
4-2 Top 10 Urban Congested Areas: 2011 by hours of delay per car commuter

Rank	Urban area	Annual hours of delay per car commuter
1	Washington, DC-VA-MD	67
2	Los Angeles, CA	61
2	San Francisco, CA	61
4	New York, NY-NJ	59
5	Boston, MA-NH-RI	53
6	Houston, TX	52
7	Atlanta, GA	51
7	Chicago, IL-IN	51
9	Philadelphia, PA-NJ-DE-MD	48
9	Seattle, WA	48
	Average of 498 urban areas	38

Note: The 2012 *Urban Mobility Report* includes 498 urban areas.

Source: Texas A&M Transportation Institute, 2012 *Urban Mobility Report*, available at mobility.tamu.edu as of October 2013.

4-3 U.S. Airport On-Time Performance: 1995–2013

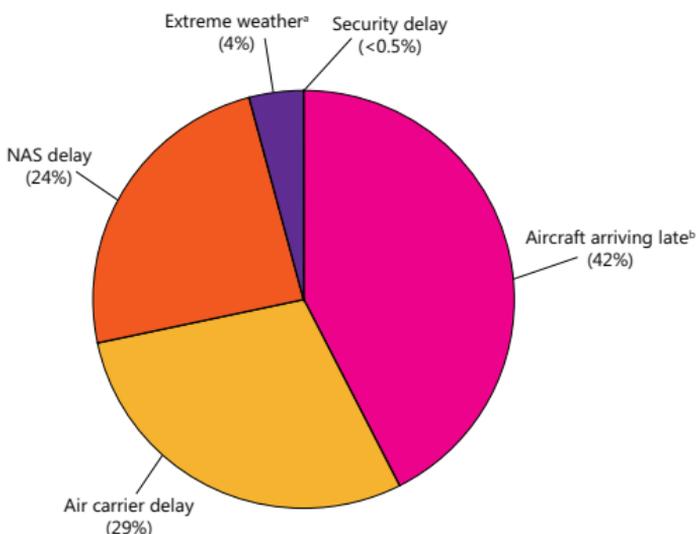


Note: Flights arriving at the gate within 15 minutes of scheduled arrival time are on time.

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, Office of Airline Information, available at www.bts.gov as of September 2014.

4-4 U.S. Airport Delays by Cause: 2013

percent of delayed time



^aIncludes weather events that prevent flying. Other weather delays that slow operations are included under other categories. ^bDelay resulting from a previous flight with the same aircraft arriving late.

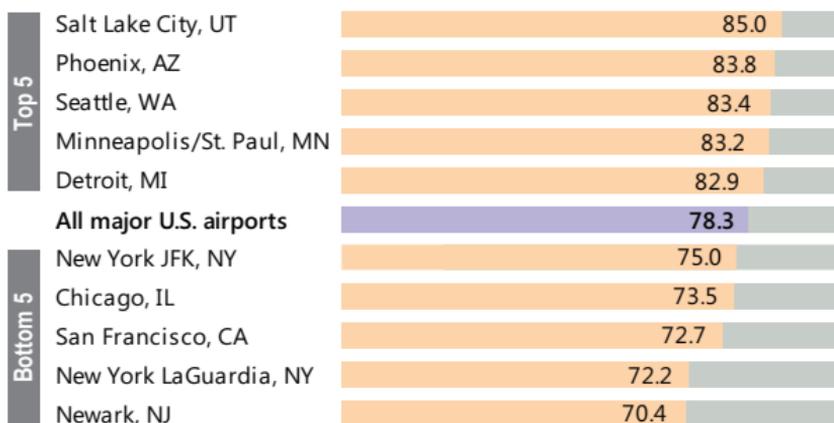
Key: NAS = Delays attributable to the national aviation system (NAS) that refer to a broad set of conditions, such as non-extreme weather, airport operations, heavy traffic volume, and air traffic control.

Note: Percents do not add to 100 due to rounding.

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, Office of Airline Information, available at www.bts.gov as of September 2014.

4-5 U.S. Major Airport Performance Rankings: 2013

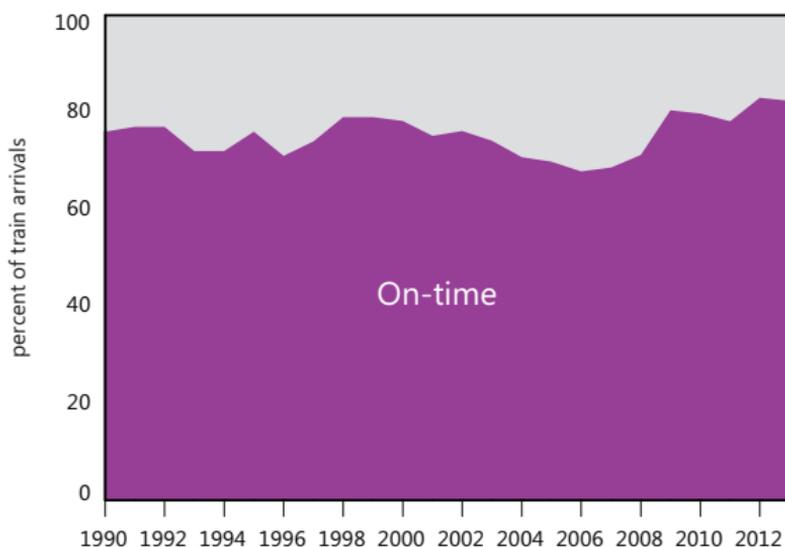
by percent of on-time arrivals



Note: Flights arriving at the gate within 15 minutes of scheduled arrival time are on time.

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, Office of Airline Information, available at www.bts.gov as of September 2014.

4-6 Amtrak On-time Performance: FY1990–FY2013



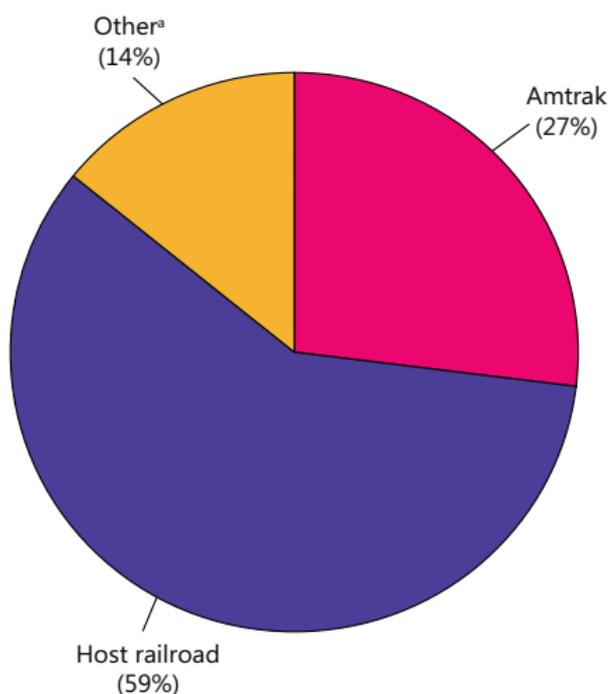
Note: On-time performance is a percentage measure of train performance. A train is considered on-time if it arrives at the final destination, or end-point, within an allowed number of minutes, or tolerance, of its scheduled arrival time. Trains are allowed a certain tolerance at the end-point based on the number of miles traveled:

Trip length	Train arrives at end-point within
0-250 miles	10 minutes
251-350 miles	15 minutes
351-450 miles	20 minutes
451-550 miles	25 minutes
>551 miles	30 minutes

Source: as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-73, available at www.bts.gov as of September 2014.

4-7 Amtrak Delays by Cause: FY2012

percent of delayed time



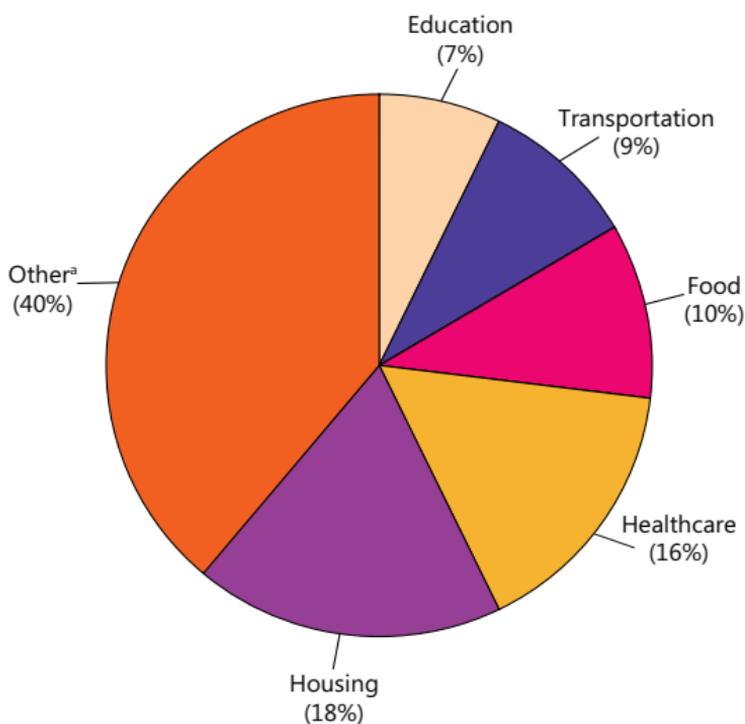
^aDelays not attributable to Amtrak or other host railroads, such as customs and immigration, law enforcement action, weather, or waiting for scheduled departure time.

Source: as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-73, available at www.bts.gov as of October 2013.

5 ECONOMY

Transportation is a major sector of the U.S. economy. The transportation system moves people and goods, employs millions of workers, generates revenue, and consumes resources and services provided by other sectors.

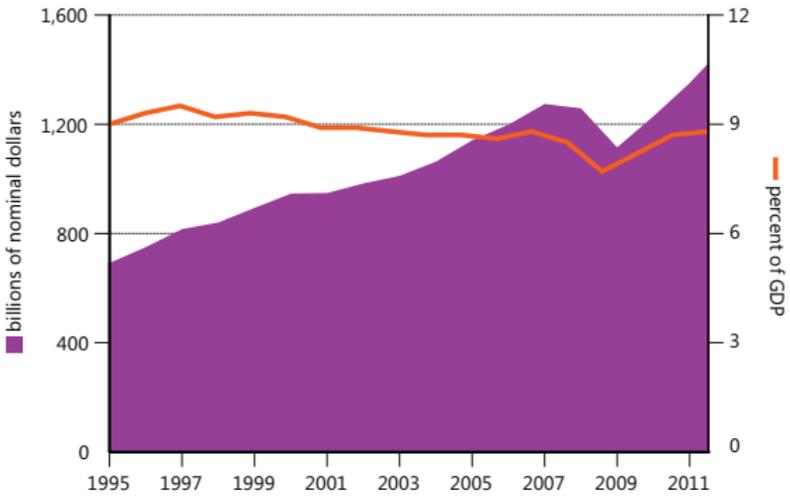
5-1 U.S. GDP by Spending Category: 2012 percent of GDP



^aIncludes all other categories (e.g. entertainment, personal care products and services, and payments to pension plans).

Source: as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, table 3-9, available at www.bts.gov as of October 2014.

5-2 U.S. Transportation Spending: 1995–2012



Source: as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, table 3-9, available at www.bts.gov as of October 2014.

5-3 Transportation-Related Final Demand

billions of chained 2009 dollars

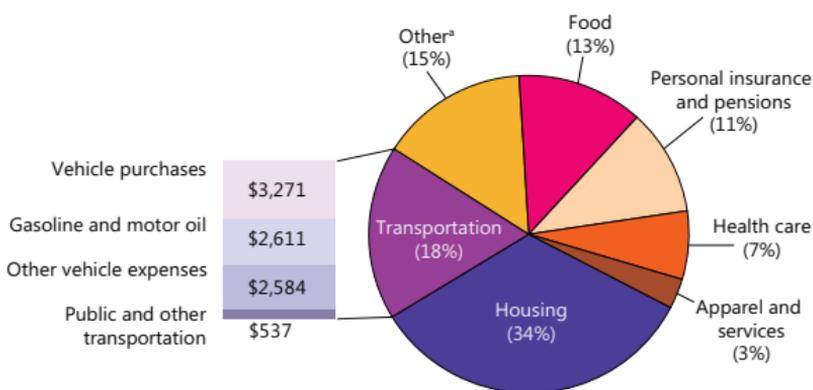
Category	2002	2012
Personal consumption of transportation	971	909
Motor vehicles and parts	383	358
Motor vehicle fuels, lubricants, and fluids	267	251
Transportation services	321	300
Gross private domestic investment	175	228
Transportation structures	8	10
Transportation equipment	167	218
Government transportation-related purchases	305	280
Federal purchases	31	39
State and local purchases	261	223
Defense-related purchases	13	18
Exports (+)	207	296
Imports (-)	318	390
Total transportation-related final demand	1,341	1,323
U.S. GDP	12,909	15,369

Notes: Data may not add to totals due to rounding. Transportation-related final demand measures the size of transportation functions in relation to the GDP. It includes the transportation portion of the four components of the GDP: personal consumption, gross private domestic investment, government purchases, and net exports of goods and services.

Source: as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, table 3-4, available at www.bts.gov as of October 2014.

5-4 Household Expenses by Category: 2013

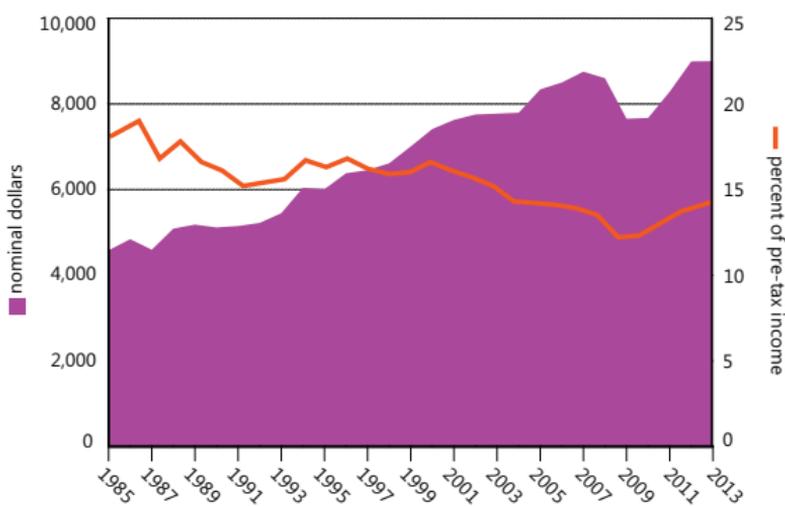
percent of average annual household expenses



^a Includes alcoholic beverages, cash contributions, education, entertainment, personal care products and services, reading, tobacco products and smoking supplies, and other items.

Source: U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Expenditure Survey*, available at www.bls.gov/cex as of September 2014.

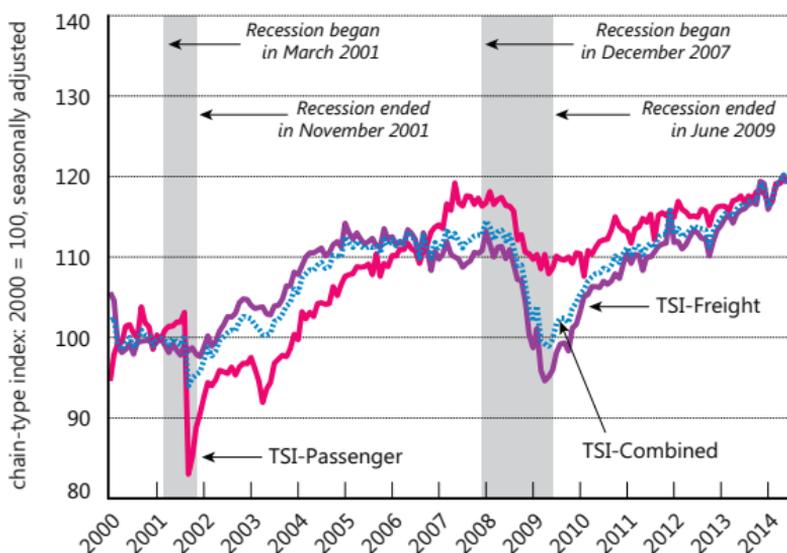
5-5 Household Transportation Expenses: 1985–2013



Source: U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Expenditure Survey*, available at www.bls.gov/cex as of September 2014.

5-6 Transportation Services Index: Jan. 2000–June 2014

chain-type Index: 2000 = 100, seasonally adjusted



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, available at www.bts.gov as of September 2014.

5-7 Employment in Transportation-Related Industries

thousands

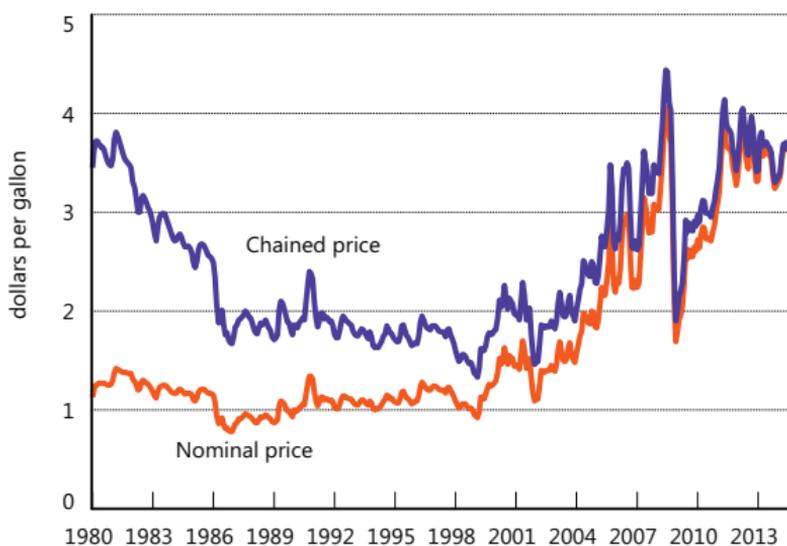
Category	2002	2012
For-hire transportation and warehousing	4,224	4,415
Air	564	458
Rail	218	230
Water	53	63
Truck	1,339	1,351
Transit and ground passenger	381	448
Pipeline	42	44
Scenic and sightseeing	26	27
Support activities	525	578
Couriers and messengers	561	533
Warehousing and storage	517	682
Transportation-related manufacturing^a	2,200	1,757
Other transportation-related industries	5,241	4,893
Postal service	842	611
Government employment ^b	<u>932</u>	<u>870</u>
Total transportation-related labor force	13,438	12,547
U.S. labor force	130,450	133,739

^aIncludes transportation equipment; petroleum products; tires; rubber; plastics; search, detection, navigation, guidance, aeronautical, and nautical systems; and instrument manufacturing. ^bFiscal year data for federal, state, and local personnel.

Notes: Annual averages based on NAICS data. Details may not add to totals due to rounding.

Source: as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, table 3-23, available at www.bts.gov as of September 2014.

5-8 Motor Vehicle Gas Prices: Jan. 1980–July 2014



Notes: Prices are average monthly prices of regular grade motor vehicle gasoline. Chained prices are in August 2014 dollars.

Source: U.S. Department of Energy, Energy Information Administration, *Short-Term Energy Outlook*, available at www.eia.doe.gov as of September 2014.

6 SAFETY

Transportation safety is the top priority of the U.S. Department of Transportation. Although progress has been made in reducing fatalities, over 30 percent of deaths due to unintentional injury involve transportation.

6-1 Transportation Fatalities by Mode

Mode	2002	2012
Air	616	447
U.S. air carrier	0	0
Commuter carrier	0	0
On-demand air taxi	35	15
General aviation	581	432
Highway	43,005	33,561
Passenger car occupants	20,569	12,271
Motorcyclists	3,270	4,957
Light-truck occupants	12,274	9,396
Heavy-truck occupants	689	697
Bus occupants	45	39
Pedestrians	4,851	4,743
Pedalcyclists	665	726
Other	642	732
Pipeline	12	12
Rail^a	680	557
Trespassers	540	425
Highway-railgrade crossings	86	98
Employees, contractors, and passengers	54	34
Transit^b	86	82
Water	863	714
Commercial vessel	113	63
Recreational boating	750	651
Total	45,262	35,373
Other counts^c		
Highway-rail grade crossings	357	232
Commuter rail	116	80
Heavy rail	73	52
Light rail	13	29
Transit bus	78	70

^aExcludes fatalities involving motor vehicles at public highway-rail grade crossings, which are assumed to be counted under Highway categories. ^bIncludes automated guideway, heavy-rail, and light-rail fatalities. Other transit fatalities are assumed to be counted under Highway or Rail categories. ^cOther counts are included in modal categories above.

Source: as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, table 2-1, available at www.bts.gov as of October 2014.

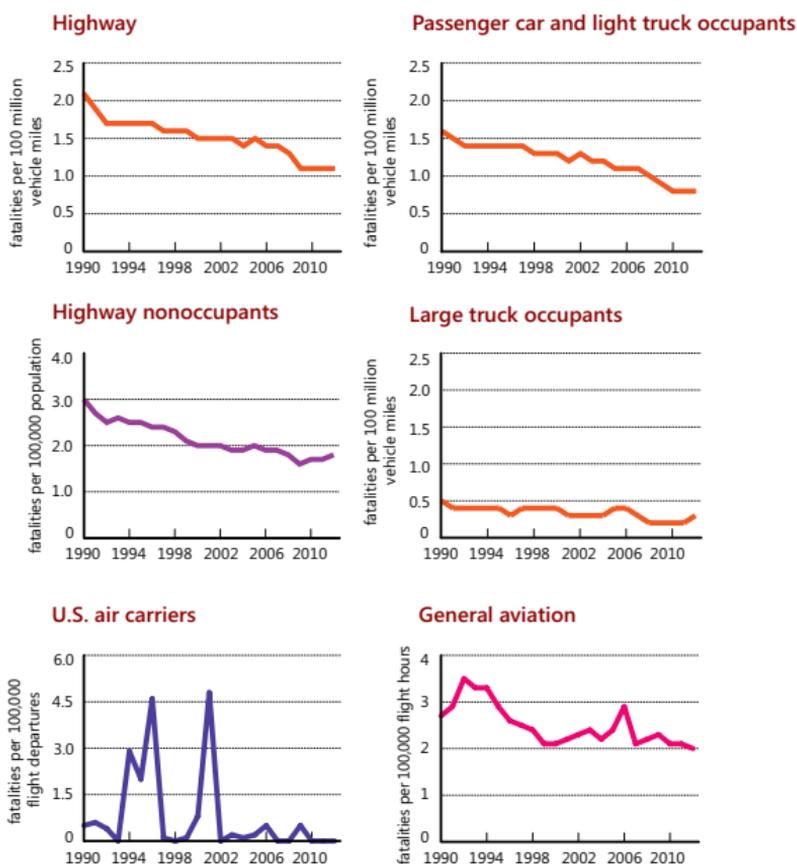
6-2 Transportation Injuries by Mode

Mode	2002	2012
Air	337	276
U.S. air carrier	24	18
Commuter carrier	0	0
On-demand air taxi	16	10
General aviation	297	248
Highway	2,925,758	2,362,000
Passenger car occupants	1,804,788	1,328,000
Motorcyclists	64,713	93,000
Light-truck occupants	879,338	762,000
Heavy-truck occupants	26,242	25,000
Bus occupants	18,819	12,000
Pedestrians	70,664	76,000
Pedalcyclists	48,011	49,000
Other	13,182	16,000
Pipeline	49	58
Rail^a	10,296	7,622
Trespassers	395	410
Highway-rail grade crossing	192	208
Employees, contractors, and passengers	9,709	7,004
Transit^b	5,391	7,584
Water	4,856	3,688
Commercial vessel	794	688
Recreational boating	4,062	3,000
Total	2,946,687	2,381,228
Other counts^c		
Highway-rail grade crossings	999	971
Commuter rail	1,483	1,891
Heavy rail	4,806	6,674
Light rail	557	750
Transit bus	11,995	11,328

^aExcludes injuries involving motor vehicles at public highway-rail grade crossings, which are assumed to be counted under Highway categories. ^bIncludes automated guideway, heavy-rail, and light-rail injuries. Other transit injuries are assumed to be counted under Highway or Rail categories. ^cOther counts are included in modal categories above.

Source: as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, table 2-2, available at www.bts.gov as of October 2014.

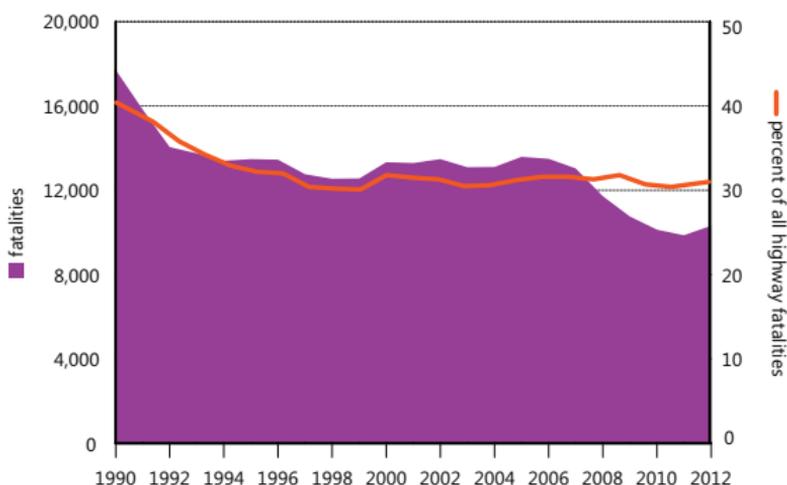
6-3 Fatality Rates by Mode: 1990–2012



Notes: Graphs with same color trend lines have identical scales. Air carrier fatalities resulting from the Sept. 11, 2001 terrorist acts include only onboard fatalities.

Sources: as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, tables 2-9, 2-14, 2-17, 2-19, 2-21, and 2-23, available at www.bts.gov as of June 2014.

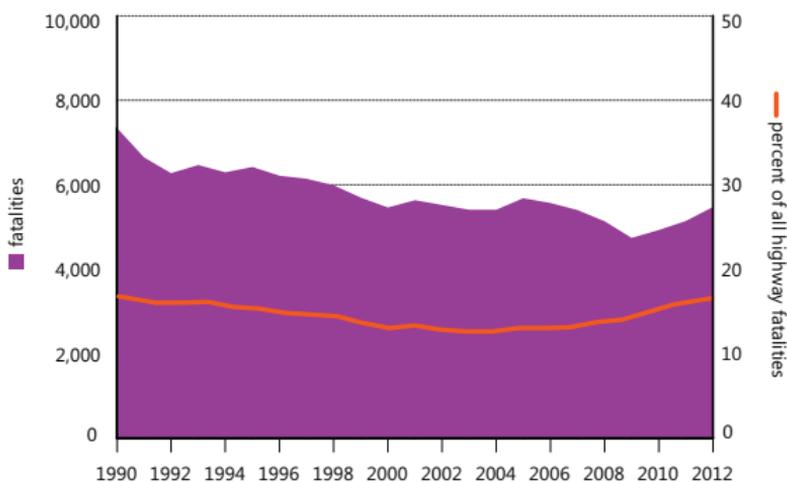
6-4 Alcohol-Impaired Driving Fatalities: 1990–2012



Note: Includes fatalities occurring in any crash involving a driver with a blood alcohol concentration (BAC) of 0.08 grams per deciliter or higher.

Source: U.S. Department of Transportation, National Highway Traffic Safety Administration, available at www.nhtsa.gov as of September 2014.

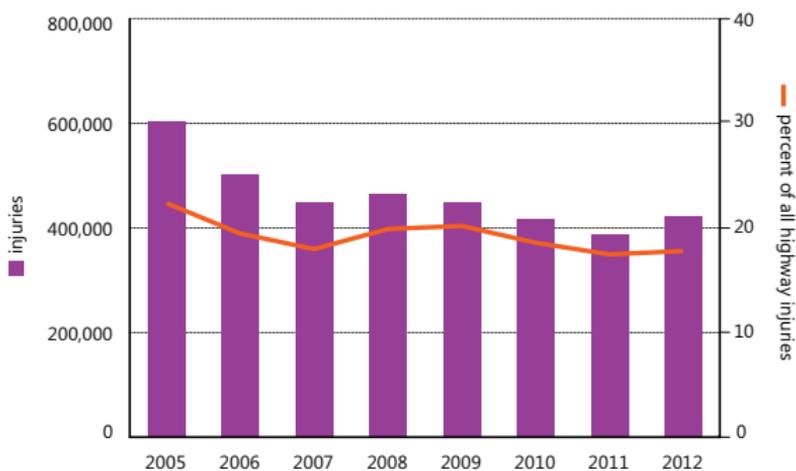
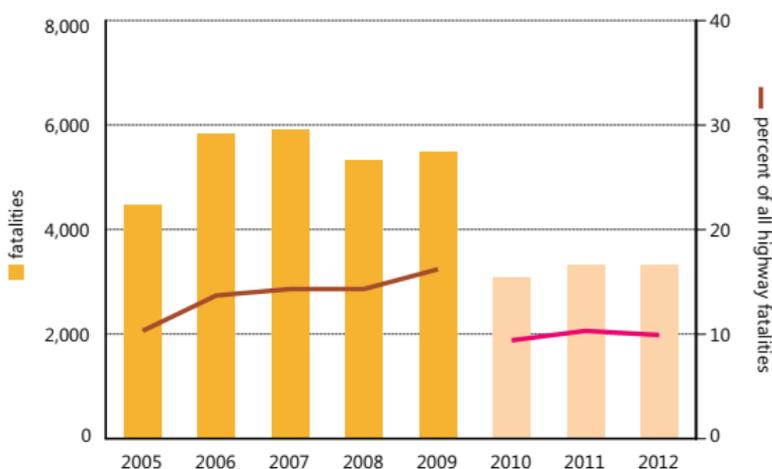
6-5 Pedestrian and Bicyclist Fatalities: 1990–2012



Note: Includes pedestrians and riders of nonmotorized bicycles and other pedal-powered vehicles.

Source: U.S. Department of Transportation, National Highway Traffic Safety Administration, available at www.nhtsa.gov as of September 2014.

6-6 Distracted Driving Fatalities and Injuries: 2005–2012



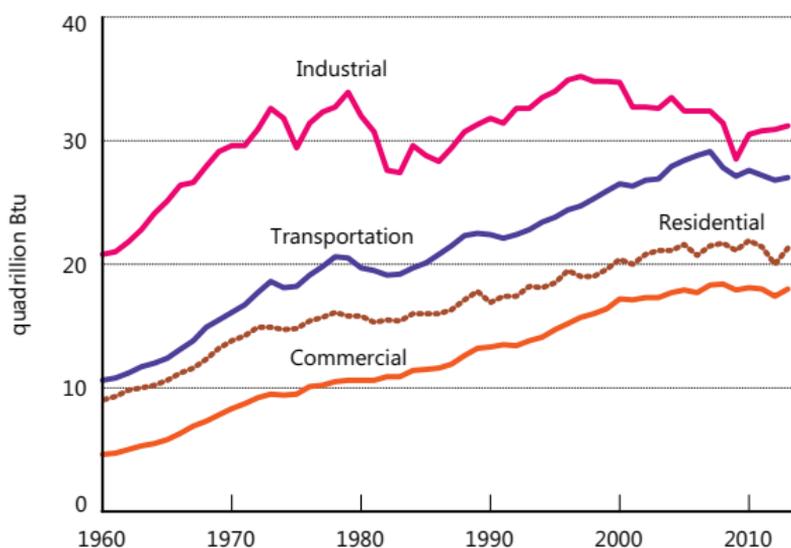
Note: Distracted driving fatality data for 2010 and on are not comparable with previous years due to changes in methodology.

Source: U.S. Department of Transportation, National Highway Traffic Safety Administration, available at www.nhtsa.gov as of September 2014.

7 ENVIRONMENT

The U.S. transportation system is a major consumer of energy and generates significant environmental impacts.

7-1 Energy Consumption by Sector: 1960–2013



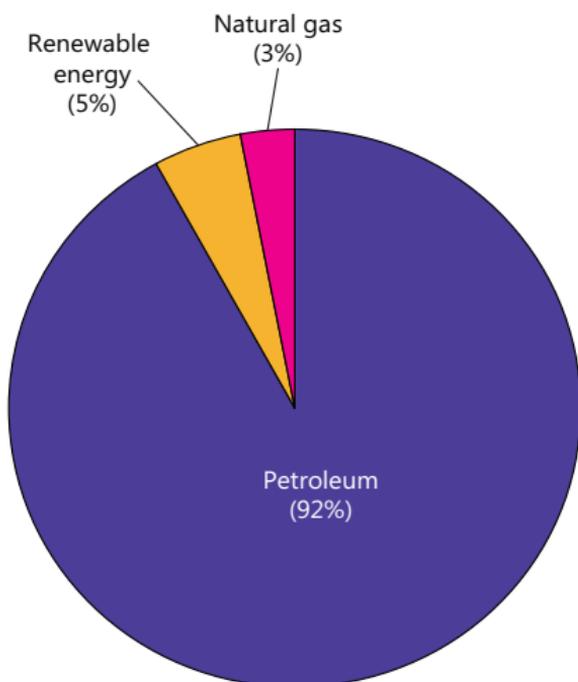
Key: Btu = British thermal unit.

Note: Includes primary energy consumption, electricity retail sales, and electrical system energy losses.

Source: U.S. Department of Energy, U.S. Energy Information Administration, *Monthly Energy Review*, available at www.eia.gov/totalenergy/data/monthly as of September 2014.

7-2 Transportation Energy Consumption by Source: 2013

percent of Btu consumed

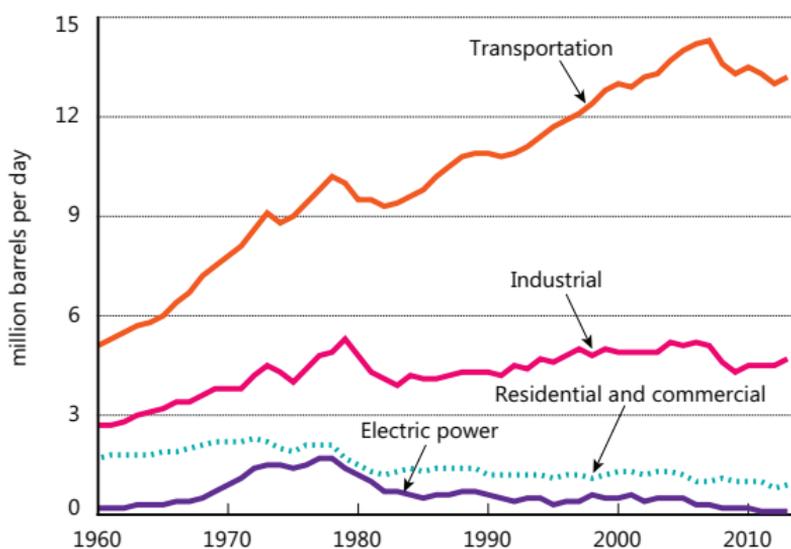


Key: Btu = British thermal unit.

Note: Excludes electricity retail sales and electrical system energy losses.

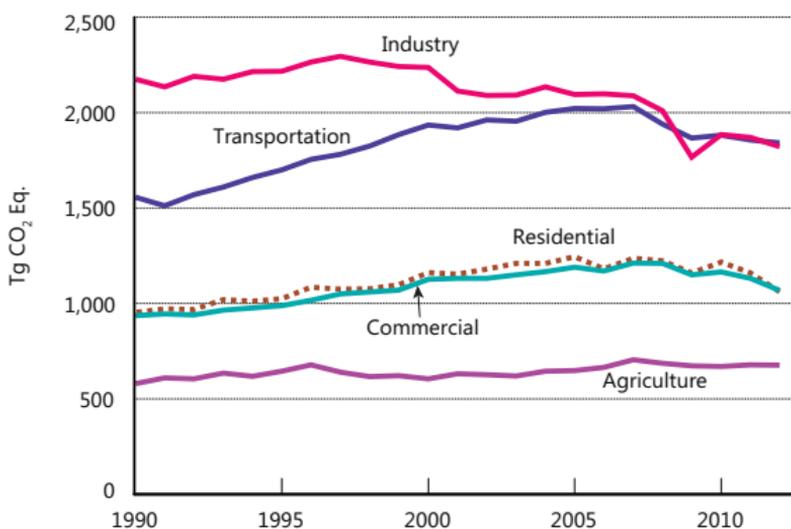
Source: U.S. Department of Energy, U.S. Energy Information Administration, *Monthly Energy Review*, available at www.eia.gov/totalenergy/data/monthly as of September 2014.

7-3 Petroleum Consumption by Sector: 1960–2013



Source: U.S. Department of Energy, U.S. Energy Information Administration, *Monthly Energy Review*, available at www.eia.gov/totalenergy/data/monthly as of September 2014.

7-4 Greenhouse Gas Emissions by Sector: 1990–2012



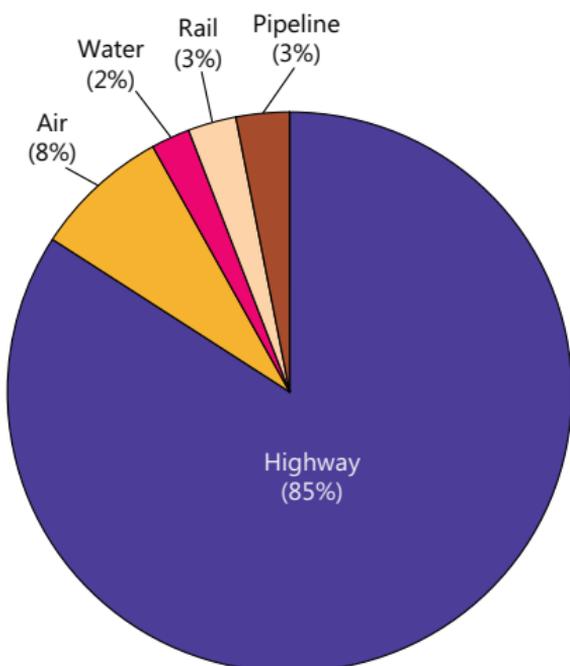
Key: Tg CO₂ Eq. = teragrams of carbon dioxide equivalent. A teragram = 1 million metric tons.

Note: Electric power sector emissions are distributed across sectors. Emissions include CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆.

Source: U.S. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2012*, available at www.epa.gov/climatechange/ghgemissions/usinventoryreport.html as of September 2014.

7-5 Transportation GHG Emissions by Mode: 2012

Percent of Tg CO₂ Eq.



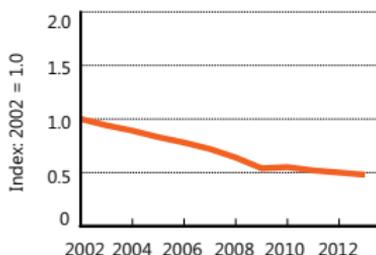
Key: GHG = greenhouse gas. Tg CO₂ Eq. = teragrams of carbon dioxide equivalent. A teragram = 1 million metric tons.

Note: Percents do not add to 100 due to rounding.

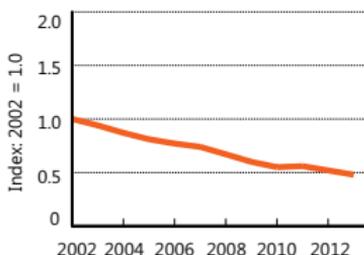
Source: U.S. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2012*, available at www.epa.gov/climatechange/ghgemissions/usinventoryreport.html as of September 2014.

7-6 Highway Vehicle Air Pollutant Emissions: 2002–2013

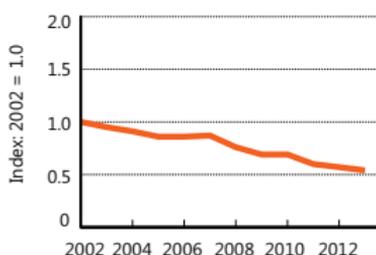
Carbon monoxide



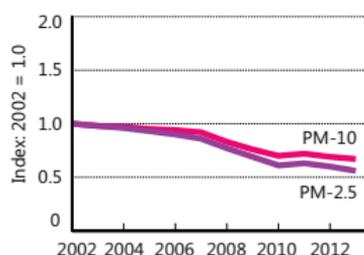
Nitrogen oxide



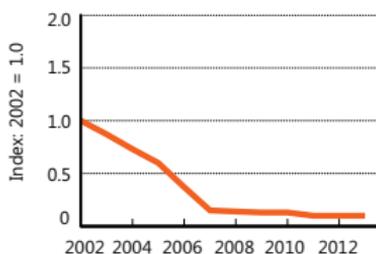
Volatile organic compounds



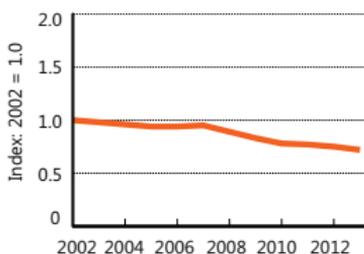
Particulate matter



Sulfur dioxide



Ammonia

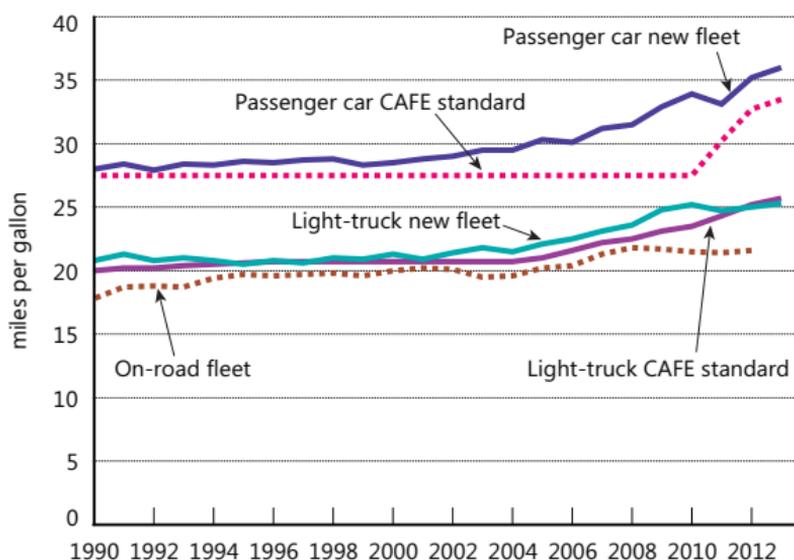


Key: PM-10 = airborne particulates of less than 10 microns; PM-2.5 = airborne particulates of less than 2.5 microns.

Notes: Indices are calculated using data on highway vehicle emissions only. Particulate matters include PM without condensibles.

Sources: as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, tables 4-45 through 4-50, available at www.bts.gov as of September 2014.

7-7 Fuel Economy of Light-Duty Vehicles: 1990–2013

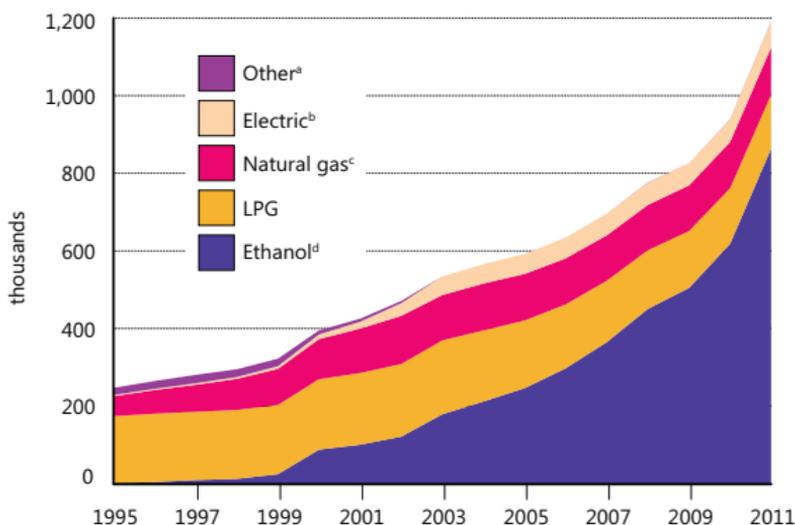


Key: CAFE = Corporate Average Fuel Economy; U = Data are unavailable.

Notes: New fleet data and CAFE standards are for vehicle model years. On-road fleet data include passenger cars and light trucks and are estimated using average miles traveled per gallon of fuel consumed for each calendar year.

Source: as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics*, table 4-23, available at www.bts.gov as of September 2014.

7-8 Alternative Fuel Vehicles in Use: 1995–2011



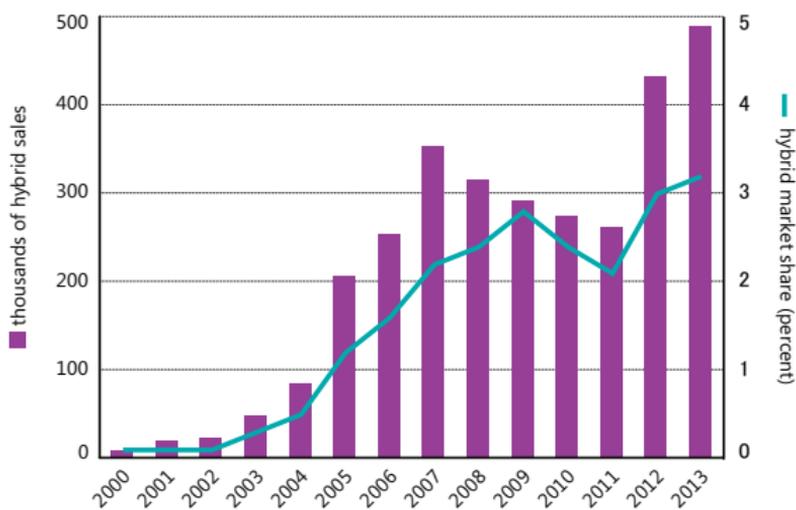
^aIncludes 85% methanol (M85), neat methanol (M100), and hydrogen fuels.

^bExcludes gasoline-electric hybrids. ^cIncludes compressed natural gas (CNG) and liquified natural gas (LNG). ^dIncludes 85% ethanol (E85) and 95% ethanol (E95). E85 includes only fleet-based vehicles and excludes vehicles with E85 fueling capability owned by individuals.

Key: LPG = liquefied petroleum gas.

Source: U.S. Department of Energy, Energy Information Administration, available at www.afdc.energy.gov/data as of September 2014.

7-9 Hybrid Vehicle Sales: 2000–2013



Source: Ward's Automotive Group, www.wardsauto.com as of September 2014.

GLOSSARY

Air carrier: Certificated provider of scheduled and nonscheduled services.

Chained dollars: A method to measure real changes in dollar values between years that uses chain-type indexes, rather than constant dollars. The method first calculates the real changes between adjacent years. Annual rates of real changes are then chained (multiplied) together to obtain the rate of real changes between nonadjacent years.

Class I railroad: Railroads earning adjusted annual operating revenues for three consecutive years of \$250,000,000 or more, based on 1991 dollars with an adjustment factor applied to subsequent years.

Commuter rail: Urban/suburban passenger train service for short-distance travel between a central city and adjacent suburbs run on tracks of a traditional railroad system. Does not include heavy or light rail transit service.

Demand-response transit: A nonfixed-route, nonfixed-schedule form of transportation that operates in response to calls from passengers or their agents to the transit operator or dispatcher.

Directional route-miles: The sum of the mileage in each direction over which transit vehicles travel while in revenue service.

Directly operated service: Transportation service provided directly by a transit agency, using their employees to supply the necessary labor to operate the revenue vehicles.

Enplanements: Total number of revenue passengers boarding aircraft.

For-hire: Refers to a vehicle operated on behalf of or by a company that provides services to external customers for a fee. It is distinguished from private transportation services, in which a firm transports its own freight and does not offer its transportation services to other shippers.

General aviation: Civil aviation operations other than those air carriers holding a Certificate of Public Convenience and Necessity. Types of aircraft used in general aviation range from corporate, multi-engine jets piloted by a professional crew to amateur-built, single-engine, piston-driven, acrobatic planes.

Gross Domestic Product: The total value of goods and services produced by labor and property located in the United States. As long as the labor and property are located in the United States, the suppliers may be either U.S. residents or residents of foreign countries.

Heavy-rail transit: High-speed transit rail operated on rights-of-way that exclude all other vehicles and pedestrians.

Hybrid vehicle: Hybrid electric vehicles combine features of internal combustion engines and electric motors. Unlike 100% electric vehicles, hybrid vehicles do not need to be plugged into an external source of electricity to be recharged. Most hybrid vehicles operate on gasoline.

International Roughness Index (IRI): A scale for roughness based on the simulated response of a generic motor vehicle to the roughness in a single wheel path of the road surface.

Lane-miles: One mile of one lane of road.

Large certificated air carrier: Carriers operating aircraft with a maximum passenger capacity of more than 60 seats or a maximum payload of more than 18,000 pounds. These carriers are also grouped by annual operating revenues: majors—more than \$1 billion; nationals—between \$100 million and \$1 billion; large regionals—between \$20 million and \$99,999,999; and medium regionals—less than \$20 million.

Light-rail transit: Urban transit rail operated on a reserved right-of-way that may be crossed by roads used by motor vehicles and pedestrians.

Light-duty vehicle: Passenger cars, light trucks, vans, pickup trucks, and sport/utility vehicles regardless of wheelbase.

Nominal dollars: A market value that does not take inflation into account and reflects prices and quantities that were current during the period being measured.

Nonselved-propelled vessels: Includes dry cargo, tank barges, and railroad car floats that operate in U.S. ports and waterways.

Oceangoing vessels: Includes U.S. flag, privately-owned merchant fleet of oceangoing, self-propelled, cargo-carrying vessels of 1,000 gross tons or greater.

Particulates: Carbon particles formed by partial oxidation and reduction of hydrocarbon fuel. Also included are trace quantities of metal oxides and nitrides originating from engine wear, component degradation, and inorganic fuel additives.

Passenger-mile: One passenger transported one mile. For example, one vehicle traveling 3 miles carrying 5 passengers generates 15 passenger-miles.

Personal communication: Involves contacting the source for data if not publicly available.

Reliever airports: Airports designated by the Federal Aviation Administration to relieve congestion at commercial service airports and to provide improved general aviation access to the overall community.

Self-propelled vessels: Includes dry cargo vessels, tankers, and offshore supply vessels, tugboats, pushboats, and passenger vessels, such as excursion/sightseeing boats, combination passenger and dry cargo vessels, and ferries.

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

Structurally deficient: Structural deficiencies are characterized by deteriorated conditions of significant bridge elements and reduced load-carrying capacity.

Tg CO2 Eq.: Teragrams of carbon dioxide equivalent, a metric measure used to compare the emissions from various greenhouse gases based on their global warming potential.

Ton-mile: A unit of measure equal to movement of one ton over one mile.

Transportation Services Index: BTS' monthly measure indicating the relative change in the volume of services over time performed by the for-hire transportation sector. Change is shown relative to a base year, which is given a value of 100. The TSI covers the activities of for-hire freight carriers, for-hire passenger carriers, and a combination of the two. See www.bts.gov for a detailed explanation.

Unlinked passenger trip: The number of passengers who board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination.

Vehicle-mile: One vehicle traveling one mile.

Statistics published in this Pocket Guide to Transportation come from many different sources. Some statistics are based on samples and are subject to sampling variability. Statistics may also be subject to omissions and errors in reporting, recording, and processing.

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MOVING PEOPLE

MOVING GOODS

PERFORMANCE

ECONOMY

SAFETY

ENVIRONMENT

GLOSSARY



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