CHAPTER 2

Moving People

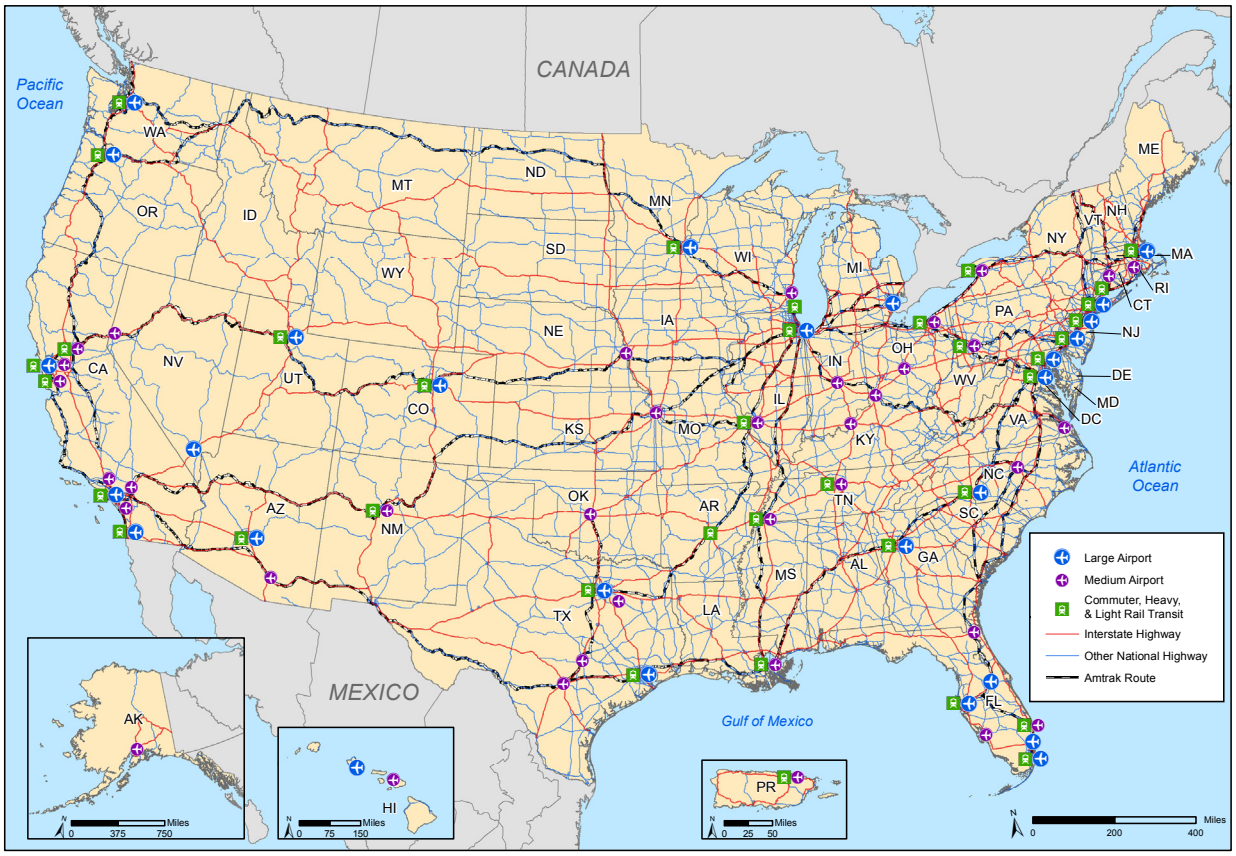
The personal mobility delivered by the transportation system is an essential part of life in the United States. Americans travel on average more than 13,000 miles per year[1] [USDOT FHWA NHTS 2011, p. 7]. Americans travel on a daily basis to and from work, school, shopping, and for social and personal purposes. They make long-distance trips for business, pleasure, and to visit others. While personal vehicles and air travel account for 92.3 percent of passenger-miles, buses, trains, ferries, and other forms of public transportation also move large numbers of people. Figure 2-1 shows the major U.S. passenger transportation facilities that serve the passenger travel system. Even though the passenger transportation system is able to handle huge numbers of trips, matters such as access to transportation for households without a personal vehicle or for people with disabilities create challenges for the system in fully meeting the Nation's mobility needs.

U.S. residents and foreign visitors traveled about 4.6 trillion passenger-miles within the United

[1] Include trips by passenger vehicle, transit, walking, etc.

- U.S. residents and foreign visitors traveled about 4.6 trillion miles within the United States in 2010, down from 5.3 trillion in 2007.
- The average resident travels more than 13,000 miles per year, taking an average of 4 local trips that total 36 miles per day.
- The United States ranks the highest in the world in terms of per capita vehicle ownership—828 motor vehicles per 1,000 people. About 10 million, or 9 percent, of American households do not own or have access to a vehicle.
- On average, daily commutes account for slightly more than one-quarter of the total daily travel in miles.
- Domestic air travel peaked in 2007 at almost 608 billion revenue-passenger-miles (a measure of the total miles traveled by all passengers who paid fares), dropped to 552 billion in 2009, and recovered slightly to 565 million in 2010.

FIGURE 2-1 Major Passenger Transportation Facilities: 2013



SOURCES: **Airports**: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, T-100 Domestic Market (U.S. Carriers) Data, available at http://transtats.bts.gov/ as of February 2013. *Large Hub Airports* account for 1 percent or more of 2011 enplanements and *Medium Hub Airports* account for at least 0.25 percent but less than 1 percent of 2011 enplanements. **Rail Transit**: U.S. Department of Transportation, Federal Transit Administration, *National Transit Database 2011*, available at http://www.ntdprogram.gov/ as of February 2013. **Interstates/Highways and Amtrak**: U.S. Department of Transportation, Bureau of Transportation Statistics, Office of Geospatial Information Systems, *National Transportation Atlas Databases 2012*, available at http://www.rita.dot.gov/publications/national_transportation_atlas_database as of February 2013.

States in 2010, compared to 5.3 trillion passenger-miles in 2007, before the economic downturn. People used personal vehicles—such as cars, minivans, sport utility vehicles (SUVs), and pickup trucks—for 79.9 percent of this travel. Domestic air travel accounted for about 12.4 percent of passenger-miles. Although the number of people using public transit, intercity trains, and buses has increased, and far surpasses the number of people traveling by air, these modes together account for less than 8 percent of total passenger-miles traveled (table 2-1).

The large share of passenger-miles in personal vehicles reflects a century of growth in vehicle ownership. In 2009, there were about 828 motor vehicles for every 1,000 people in the United States—this is by far the highest per capita vehicle ownership in the world. Canada, next on the list, reported 621 vehicles per 1,000 people. For comparison, China, with fast

TABLE 2-1 U.S. Passenger-Miles: 2005–2010

Millions

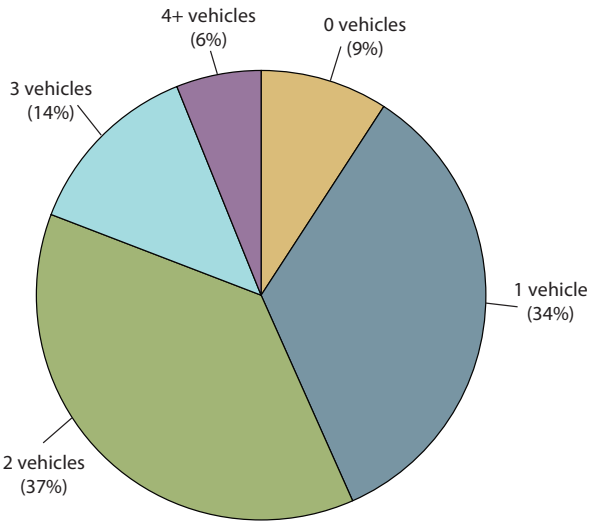
	Air, certificated, domestic, all services	Light duty vehicle	Bus	Transit	Amtrak
2005	583,771	U	U	47,125	5,381
2006	588,471	U	U	49,504	5,410
2007	607,564	4,341,984	307,753	51,873	5,784
2008	583,292	4,248,783	314,278	53,712	6,179
2009	551,741	3,625,597	305,014	53,898	5,914
2010	564,790	3,645,367	292,319	52,627	6,420

KEY: U = unavailable; comparable data are unavailable due to a change in FHWA estimation methodology.

NOTES: *Light duty vehicle* includes short wheel base passenger cars, light trucks, vans, and sport utility vehicles (SUVs) with a wheel base equal to or less than 121 inches and long wheelbase large passenger cars, pickup trucks, vans, and SUVs with a wheel base longer than 121 inches. 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. Different vehicle occupancy rates were used to estimate passenger-miles for *Light duty vehicles* and *Bus* beginning with 2009.

SOURCES: Various sources as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-40, available at http://www.bts.gov/publications/national_transportation_statistics/ as of August 2013.

FIGURE 2-2 Motor Vehicles per Household: 2011



NOTE: Data cover the household population and exclude the population living in institutions, college dormitories and other group quarters.

SOURCE: U.S. Department of Commerce, Census Bureau, *2011 American Community Survey*, table B25044, available at http://www.census.gov/acs/www/index.html as of January 2013.

growing automobile ownership, reports only 46 vehicles per 1,000 people [USDOE ORNL, tables 3.4 and 3.5].

U.S. households with two vehicles outnumber those with one vehicle, and nearly one-fifth of households have three or more vehicles. Those without a vehicle comprise 9.3 percent of households (figure 2-2).

Daily Travel

Personal and household daily travel increased rapidly during the 1970s, 1980s, and 1990s, but has since tapered off as shown by seven national travel surveys conducted by the Federal Highway Administration (FHWA).[2] The latest National Household Travel Survey (NHTS) shows an average of 36 daily person-miles of travel and 3.8 daily person trips in 2009, down from 1995 and 2001, but slightly more than in 1990 (table 2-2). While the 2001 and 2009 surveys were conducted during economic downturns, many factors have impacts on

[2] Nationwide travel surveys were conducted in 1969, 1977, 1983, 1990, 1995, 2001, and 2009.

TABLE 2-2 Daily Trip Rates and Travel Miles per Person: 1977, 1983, 1990, 1995 NPTS and 2001, 2009 NHTS

	1977	1983	1990	1995	2001	2009
Person Trips	2.92	2.89	3.76	4.30	4.09	3.79
Person Miles of Travel	25.95	25.05	34.91	38.67	40.25	36.13

KEY: NPTS=National Personal Transportation Survey; NHTS=National Household Transportation Survey.

NOTES: Except for 1969, which is not shown, the data source adjusted data for all other years to compensate for differences in methodology and terminology. For additional information, please refer to the source cited. The 1990 data have been adjusted to make them more comparable with later data in the series. The 2001 data exclude persons aged 0 to 4 since such persons were not included in the 1990 and 1995 surveys.

SOURCE: U.S. Department of Transportation, Federal Highway Administration, *Summary of Travel Trends: 2009 National Household Travel Survey*, table 11, available at www.nhts.ornl.gov as of May 2012.

person trips. For example, fluctuations in fuel prices, workforce demographics, and Internet shopping may influence travel choices. About 83.4 percent of daily person-miles of travel averaged by Americans in 2009 were in a personal vehicle. The remaining 16.6 percent were distributed among other travel modes such as all modes of transit, walking, taxi, biking, and other intercity passenger carriers.

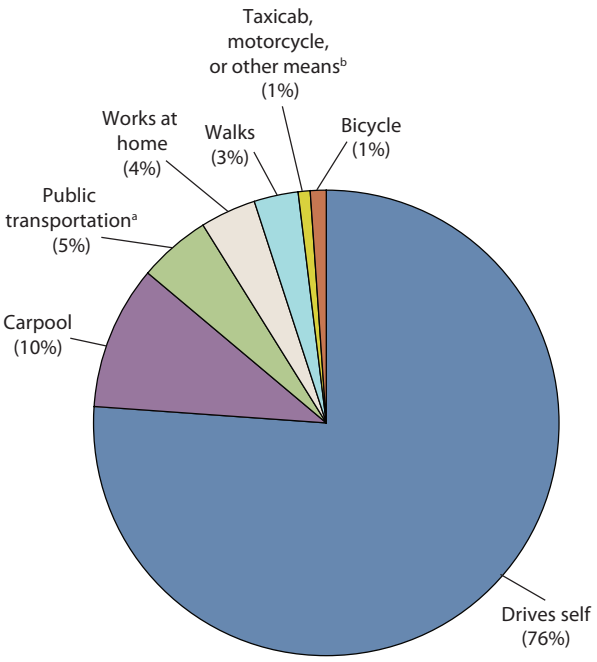
The amount of daily travel varies depending on such factors as location, employment status, age, and gender. Drivers in rural areas averaged 11 more miles in vehicle travel per day than their urban counterparts—34 versus 23 miles [USDOT FHWA NHTS 2011, p. 56]. Drivers who work generate 84 percent more vehicle-miles per year than nonworking drivers [USDOT FHWA NHTS 2011]. For drivers over 50 years of age, vehicle-miles taper off with each successive decade in longevity. Those 50 to 59 years of age averaged nearly 32 vehicle-miles per day; those aged 60 to 69 averaged 28 daily vehicle-miles, while those aged 70 to 79 averaged nearly 19 vehicle-miles per day. Drivers over 80 years of age averaged 12 vehicle-miles per day [USDOT FHWA NHTS 2011; pp. 18, 26, 28, and 55]. Men took slightly fewer trips but traveled about 10 more miles per day than women—41 versus 31 miles.

The U.S. Census Bureau measures how people get to work independent of distance (figure 2-3) as part of its annual American Community Survey and as part of the decennial censuses from 1970 through 2000. (The survey covers the trip from home to work). The most recent 1-year survey estimates found that in 2011:

- 76.4 of commuters drove to work alone;
- 9.7 percent carpooled, but rates were higher for people commuting to another metropolitan area;
- 5.0 percent of workers took public transportation to work, chiefly the bus, but the rate was higher for people residing within the principal city of a metropolitan area;
- 3.4 percent walked or biked to work; and
- 4.3 percent worked at home, up from 3 percent in 1990.

Commuters took about 25.1 minutes on average

FIGURE 2-3 How People Get to Work: 2011



[a] *Public transportation* category includes workers who used a bus or trolley bus, streetcar or trolley car, subway or elevated, railroad, or ferryboat. [b] *Other means* includes ferryboats, surface trains, and van service and other means not classified.

NOTE: Percents may not add to 100 due to rounding. For additional information, please refer to the *American Community Survey's 2011 Subject Definitions*, available at http://www.census.gov/acs/. Workers are civilians and members of the Armed Forces, 16 years and older, who were at work the previous week. Persons on vacation or not at work the prior week are not included.

SOURCE: U.S. Department of Commerce, Census Bureau, 2011 American Community Survey, table B08006, available at http://www.census.gov/acs/www/index.html as of January 2013.

to get to work in 2009. This was a bit less time than in 2000 (25.5 minutes) but 12.1 percent more than the mean travel time in 1990 (22.4 minutes)[3] [USDOC CENSUS 2011a and 2011b].

Behind the private automobile, public transportation was the second most widely used mode for getting to work. Although only 5 percent used transit nationally, a much larger share of commuters used transit in those large metropolitan regions with extensive transit systems. The New York metro area[4] outpaced all others with 30.5 percent of workers taking transit, followed by San Francisco, CA metro area (14.6 percent), and the Washington, DC, metro area (14.1 percent). Boston, MA, and Chicago, IL, are the other metro areas where more than 10 percent of commuters took transit to work [USDOC CENSUS 2011a].

Despite the large number of commuting trips made on a daily basis, personal travel not related to work accounts for about 74.8 percent of total daily person-miles of travel. As to travel purpose, people on average devoted about 30.3 percent of their person-miles of travel for social purposes and recreation in 2009. Another 29.6 percent of person-miles of travel were divided about equally between shopping and running family or personal errands (e.g., taking a child or elderly parent to a doctor's appointment). Travel related to school and church accounted for 6.2 percent of person-miles of travel [USDOT FHWA NHTS 2011, table 12].

Long-Distance Travel

The long-distance trip to destinations greater than 50 miles away is another important di-

[3] While the Census survey did not ask respondents the distance of their commute, the NHTS did. It found that both travel time and travel distance increased between 1990 and 2009, average travel speed for all modes decreased from 33 mph in 1990 to about 28 mph in 2009 (USDOT FHWA NHTS, pp. 48-49).

[4] Metro areas refer to Metropolitan Statistical Areas and Combined Statistical Areas as defined by the Office of Management and Budget (OMB) for collecting, tabulating, and publishing Federal statistics.

mension of passenger travel. Americans chose the personal vehicle or air travel for most of their long-distance trips. The most recent comprehensive survey of long-distance travel in the United States, conducted by BTS and FHWA in 2001, found that personal vehicles accounted for 89 percent of long-distance trips and 56 percent of long-distance passenger-miles, while 7 percent of trips and about 41 percent of the long-distance passenger-miles were by air. A traveler's reliance on the air mode increases with the length of the trip. Charter bus, intercity bus, trains, ships, boats, and other means of travel accounted for the remaining long-distance travel [USDOT RITA BTS NTS 2012, table 1-42].[5]

[5] While these data are more than a decade old, it is safe to assume that the personal vehicle and the airplane still account for the overwhelming majority of long-distance trips and passenger-miles.

Since 1990, domestic air travel increased from about 346 billion revenue-passenger-miles[6] to 608 billion in 2007, and then fell back to 552 billion in 2009 in response to the economic downturn. Domestic air travel in 2010 edged upwards to 565 billion revenue-passenger-miles as shown in table 2-1. The number of enplanements[7] showed a similar pattern reaching a peak in 2007, falling in 2008 and 2009, but growing between 2010 and 2012.

International air travel is another component of long-distance travel. From 134 million in

[6] A revenue passenger is a person receiving air transportation in return for renumeration to an air carrier; travelers using frequent flyer miles are considered revenue passengers, but crew and other carrier employees are not.

[7] This includes the number of passengers boarding planes, including passengers connecting from a different plane. Hence, a passenger on a flight originating in Chicago with a connecting flight in Atlanta would count as two enplanements.

TABLE 2-3 Annual Airline (U.S. and Foreign Carriers) Passenger Enplanements: 2005–2012

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)
2005	657,261,487	77.2	143,588,422	78.7	800,849,909	77.8
2006	658,362,620	79.1	149,740,591	78.6	808,103,211	78.9
2007	679,185,500	79.9	156,250,990	79.1	835,436,490	79.5
2008	651,710,304	79.7	157,737,629	77.6	809,447,933	78.7
2009	618,067,511	81.1	149,749,333	78.3	767,816,844	79.7
2010	629,537,813	82.2	157,938,675	81.6	787,476,488	81.9
2011	638,247,850	82.9	163,820,880	80.3	802,068,730	81.6
2012	642,207,399	83.4	170,734,777	81.7	812,942,176	82.5

NOTE: International enplanements include U.S. and foreign carriers. *Load factor* is calculated by dividing production, as measured by revenue passenger-miles (RPMs), by capacity, as measured in available seat-miles (ASMs).

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Office of Airline Information, *Airline Data and Statistics, Passengers*, available at http://www.bts.gov/programs/airline_information/ as of January 2013.

2000, international enplanements[8] fell in 2001 (the year of the September 11 terrorist attacks) to 123 million and then to 119 million in 2002 and 118 million in 2003. International enplanements rebounded to 144 million in 2005 and grew to 171 million in 2012 (table 2-3).

Amtrak ridership has increased over the last decade, reaching 29 million passengers and 6.4 billion passenger-miles in its 2010 fiscal year, compared to 24.2 million passengers and 5.4 billion passenger-miles 5 years earlier. The percent of rural residents covered by intercity rail declined from 42 to 40 percent of the rural population [USDOT RITA BTS 2011b, p. 1].

Travel To and From the United States

Travel by Americans abroad and foreign visitors to the United States places significant demands on international gateways and are a major source of economic activity. In 2010, a record 60 million foreign visitors came to the United States and stayed in the country at least one night. They spent an estimated $103 billion while visiting the United States in addition to spending $31 billion on air fares with U.S. carriers [USDOC ITA]. Canadians and Mexicans accounted for well over half the overnight travelers (20 million from Canada and over 13 million from Mexico). While most came to the United States in personal vehicles, 6.9 million Canadians and 2.3 million Mexican overnight travelers came by air [NATS OD table 9-1b and 9-1c]. Additionally, about 27 million residents of overseas countries arrived by air. The largest numbers of these overseas travelers came from the United Kingdom (3.9 million) and Japan (3.4 million), followed by residents of Germany, France, Brazil, and South Korea, with each generating more than one million travelers to the United States [USDOC ITA]. Table 2-4 shows the top 15 U.S. ports used for entry to the United States by overseas visitors (excluding visitors from Canada and Mexico).

While there are about 33 million overnight visitors from Canada and Mexico annually, about 216 million people crossed into the United States in 2011 through one of the 110 crossing stations along the land borders with those two countries. By far, the greatest number of crossings into the United States is from the land border with Mexico. Most people enter by personal vehicle, but foot traffic is also considerable (table 2-5).

The number of people entering from both Canada and Mexico dropped in 2001, and a decade later the number of entrants remained well below 2000 levels. For example, in 2009, there were 40.9 percent fewer pedestrian crossings at the Canadian border than in 2000, while pedestrian crossings at the Mexican border were down 36.4 percent. All border states saw a decline in border crossings except New Mexico, which accounts for less than 1 percent of all people crossings [USDOT RITA BTS 2011a]. Along the southern border, crossings in

[8] This includes international air travel between the United States and foreign countries on U.S. airlines.

TABLE 2-4 Top 15 Ports of Entry to the United States by Overseas Visitors: 2010 and 2011

	Rank	2011	2010	Percentage Change
New York, NY	1	4,562,166	4,207,877	8.4
Miami, FL	2	3,674,560	3,277,227	12.1
Los Angeles, CA	3	2,907,304	2,593,090	12.1
Newark, NJ	4	1,672,973	1,784,598	-6.3
Honolulu, HI	5	1,605,192	1,455,430	10.3
San Francisco, CA	6	1,471,264	1,364,996	7.8
Chicago, IL	7	1,221,011	1,206,958	1.2
Agana/Hagåtña, GU	8	992,665	1,064,790	-6.8
Atlanta, GA	9	931,089	952,665	-2.3
Washington, DC	10	853,136	837,961	1.8
Orlando, FL	11	851,535	836,963	1.7
Houston, TX	12	627,448	599,710	4.6
Boston, MA	13	510,889	496,701	2.9
Detroit, MI	14	429,131	363,711	18.0
Dallas, TX	15	403,400	350,075	15.2

NOTE: Overseas excludes Canada and Mexico.
SOURCE: U.S. Department of Commerce, International Trade Administration, Office of Travel & Tourism Industries, *International Visitation to the United States: A Statistical Summary of U.S. Visitation*, available at http://tinet.ita.doc.gov/outreachpages/download_data_table/2011_Visitation_Report.pdf as of January 2013.

Texas fell from about 162 million in 2000 to 96 million in 2009. California crossings fell from about 96 million in 2000 to 65 million in 2009, and Arizona crossings fell from 36 million to 26 million over the last decade. On the northern border, crossings in Michigan fell from 37 million to 15 million and New York crossings fell from 31 million to 21 million; other states along the border also showed declines.

Challenges for Passenger Travel

Access to transportation for people without a personal vehicle, transportation for the elderly and people with disabilities, diminishing travel options for rural Americans, and the degree of connectivity[9] between public transportation modes are all challenges for the passenger transportation system. Another area that has become a growing concern over the last decade is security for travelers.

Access to Transportation for People Without a Vehicle

Many people without access to a personal vehicle, especially the poor, have difficulty reaching stores, services, and workplaces outside of their immediate neighborhoods. While the share of households without a vehicle has declined from over 20 percent 50 years ago to about 8.7 percent today, about 10 million households did not have a personal vehicle in 2009, and this number grew by one million between 2001 and 2009 [USDOT FHWA NHTS 2011, p. 34]. In the most densely populated parts of cities (10,000 plus people per square mile), 28.4 percent of households had no vehicle in 2009 [USDOT FHWA NHTS 2011, p. 36].

People living below the poverty level are less

[9] Connectivity gives shippers and travelers additional transportation alternatives that unconnected, parallel systems do not offer.

TABLE 2-5 Passenger Crossings Into the U.S. by Personal Vehicles, Bus, Train, and Foot From Canada and Mexico: 2005–2011

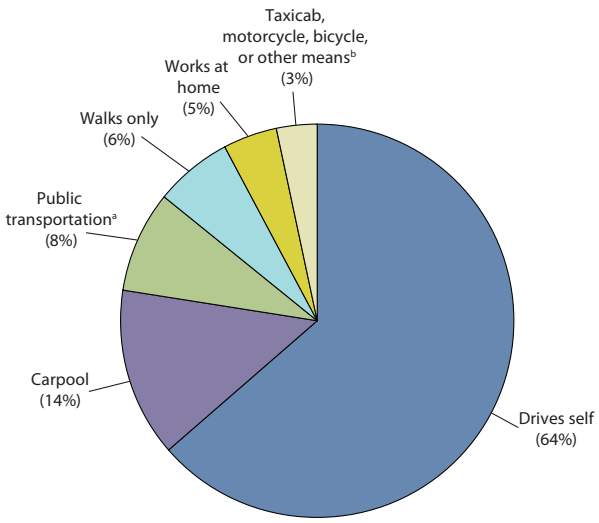
Thousands

	Personal Vehicles		Bus		Train		Foot	
	Mexico	Canada	Mexico	Canada	Mexico	Canada	Mexico	Canada
2005	186,067	62,501	3,170	3,855	18	236	45,830	605
2006	179,255	62,986	3,187	3,499	22	245	46,251	534
2007	164,534	58,409	3,389	3,685	20	233	49,539	441
2008	157,982	57,424	3,456	3,404	22	239	44,842	500
2009	141,017	53,528	2,429	2,503	4	218	41,315	380
2010	125,750	56,789	2,680	2,451	3	255	39,915	395
2011	110,962	59,192	2,720	2,452	4	277	40,021	407

NOTES: Passengers in *Personal Vehicles* (privately owned vehicles) include persons arriving by private automobile, pickup truck, motorcycle, recreational vehicle, taxi, ambulance, hearse, tractor, snow-mobile, and other motorized private ground vehicles. *Bus* passengers include both driver(s) and passengers. *Train* passengers include both passengers and crew. Passengers traveling by *Foot* 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/programs/international/transborder/TBDR_BC/TBDR_BC_Index.html as of July 2012, as cited in U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, tables 1-47 and 1-48, available at http://www.bts.gov/publications/national_transportation_statistics/ as of January 2013.

likely to own, or have access to, a personal vehicle to get to work than the population as a whole. In 2011, about 15.9 percent (46.2 million) of the U.S. population had incomes below the poverty level [USDOC CENSUS ACS, p. 1]. A BTS analysis of the 2009 NHTS found that households with annual incomes less than $25,000 were 7 times more likely to be zero-vehicle households than households with annual incomes above that level [USDOT RITA BTS 2003, p.7]. Of workers below the poverty level, 63.5 percent drive to work compared to 76.4 percent of workers overall. Compared to commuters as a whole, people below the poverty level are more likely to take public transportation, walk, or use other transportation modes (compare figure 2-3 to figure 2-4).

Figure 2-4 How Workers Below the Poverty Level Get To Work: 2011



[a] Public transportation category includes workers who used a bus or trolley bus, streetcar or trolley car, subway or elevated, railroad, or ferryboat. [b] Other means includes ferryboats, surface trains, and van service and other means not classified.

NOTE: Percents may not add to 100 due to rounding. For the methodology used to calaculate the proverty level, please see *How Poverty is Calculated in the ACS*, which is available at http://www.census.gov/hhes/www/poverty/poverty-cal-in-acs.pdf.

SOURCE: U.S. Department of Commerce, Census Bureau, *2011 American Community Survey*, table B08122, available at http://www.census.gov/acs/www/index.html as of January 2013.

Transportation Access for the Elderly and Disabled

An increasing percentage of public transportation facilities and vehicles have been built or

TABLE 2-6 Transit Rail Stations that are ADA-Compliant by Service Type: 2005–2011

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)
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
2009	784	515	721	12	2,032	3,103	65.5
2010	798	522	734	12	2,066	3,126	66.1
2011	802	530	691	52	2,075	3,107	66.8

KEY: ADA = Americans with Disabilities Act.

NOTES: *Other rail* includes monorail and Alaska Railroad. Table does not include station data for automated guideway, jitney, and inclined plane transit services. Data are for both directly operated and purchased transportation system stations. *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.

SOURCE: U.S. Department of Transportation, Federal Transit Administration, *National Transit Database*, table 21, available at http://www.ntdprogram.gov/ as of January 2013.

retrofitted to ease the concerns and facilitate travel by people with disabilities or the elderly. The percentage of urban transit buses considered to comply with the *Americans with Disabilities Act of 1990* (ADA) now exceeds 99 percent, up from 94 percent in 2005. The percentage of rail transit stations considered to be in compliance with the ADA grew from just under 60 percent in 2005 to 67 percent in 2011 during a time of rapid increase in the number of transit stations (table 2-6).

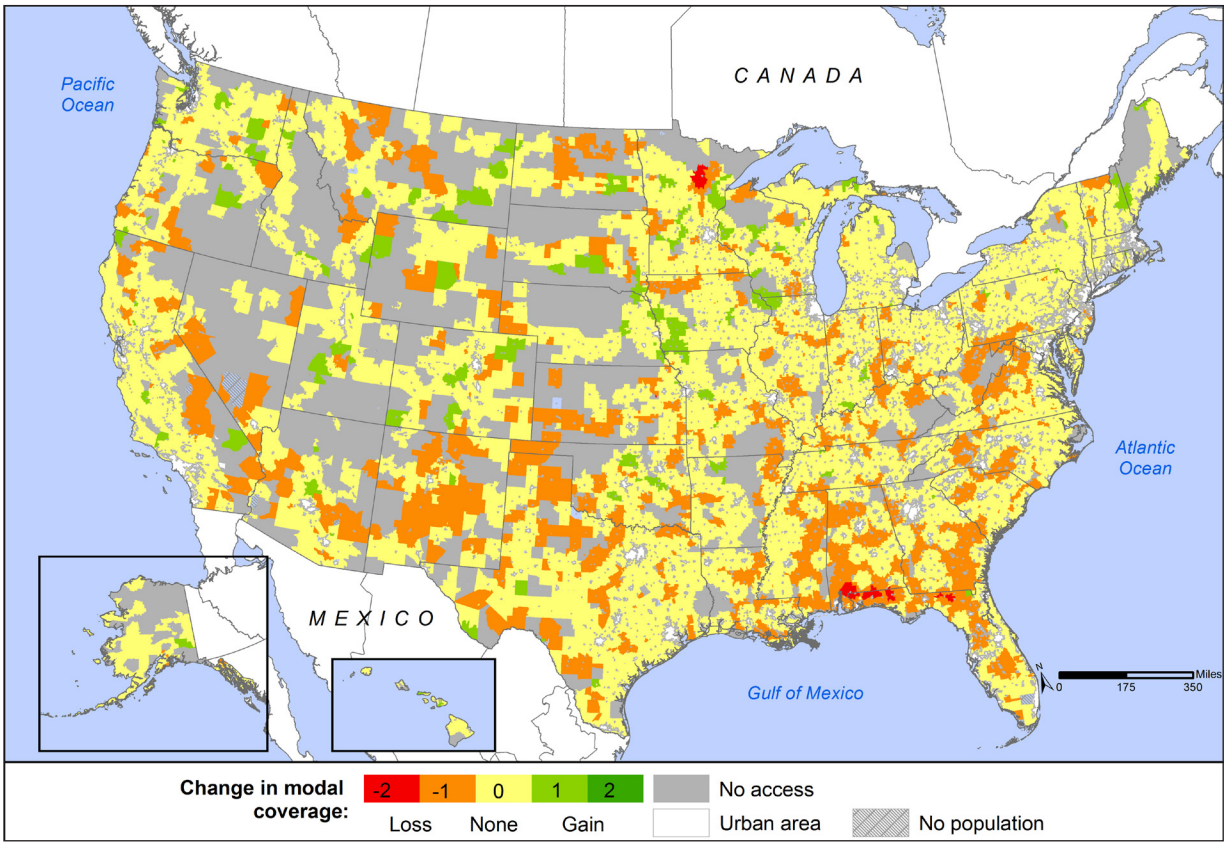
Many communities now provide demand-response transit services (also called paratransit) for the elderly, people with disabilities, or those with medical or other conditions that make it difficult for them to use regularly scheduled transit services or to travel in their own vehicle. Often, a van or other vehicle equipped to transport people in wheelchairs picks passengers up at their residence and drops them at their destination. The number of demand-response trips by providers reporting to the Federal Transit Administration (FTA) increased from 77 million in 2001 to 93 million in 2010 [USDOT FTA NTD 2012, p. 55].[10] With large numbers of baby boomers now entering retirement age, accommodating their evolving transportation needs will be a continuing challenge for the transportation system.

Travel Options in Rural America

More than 95 percent of rural households have a personal vehicle, and rural residents tend to drive more than those in urban areas. Many rural areas

[10] Providers reporting to FTA also reported 5.6 million unlinked trips in demand responsive taxi service in 2010, the first year these data were reported.

FIGURE 2-5 Change in the Number of Intercity Passenger Transportation Modes Serving Rural Areas: 2005–2010

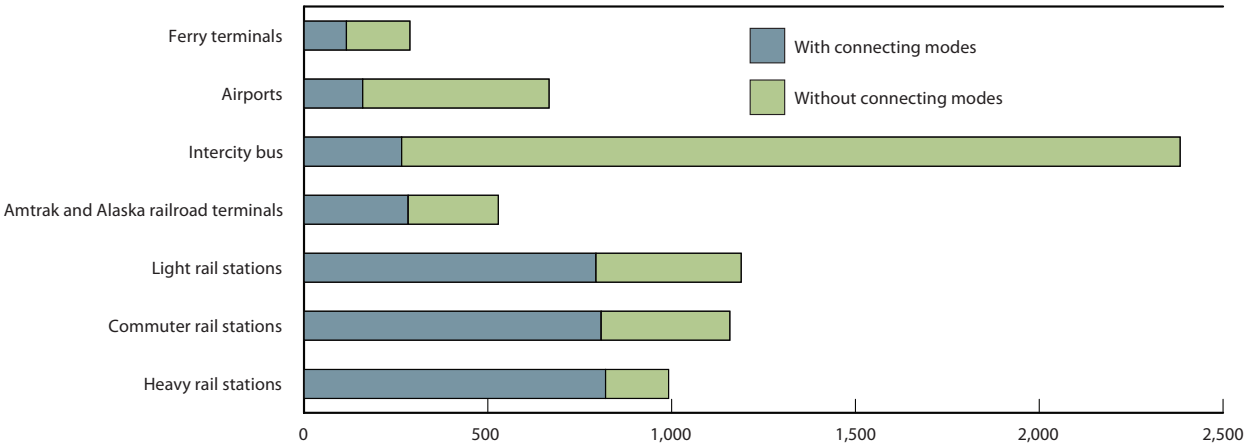


SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *The U.S. Rural Population and Scheduled Intercity Transportation in 2010: A Five-Year Decline in Transportation Access* (February 2011). Available at http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/scheduled_intercity_transportation_and_the_us_rural_population/index.html as of March 2013.

also offer transit services, especially demand-response services in which the customer calls or otherwise arranges rides from the provider. Since 2007, rural transit operators receiving grants from the U.S. Department of Transportation, Federal Transit Administration have been providing summary information about these agencies:

- about 74.5 percent of counties nationwide offered some kind of rural transit service in 2009;
- ridership on rural transit systems totaled 116 million in 2009, 1.1% of the 10,381 million in total transit ridership;
- fixed route rural service accounted for 71 million rides, and 44 million rides were on demand-response service; and
- ADA compliance for all the different kinds of vehicles used in rural transit averaged 77 percent, while for buses, compliance reached 92 percent [NDSU 2011].

FIGURE 2-6 Number of Passenger Transportation Terminals with Connectivity to Other Modes: March 2013



NOTES: As of March 7, 2013, the Intermodal Passenger Connectivity Database contains 7,114 facilities. There are 1,595 facilities on the national railroad network served by intercity and/or commuter trains; 93 of these facilities are served by both commuter and intercity rail.

SOURCE: U.S. Department of Transportation, Research and Innovative Technology Adminstration, Bureau of Transportation Statistics, Intermodal Passenger Connectivity Database, available at http://www.transtats.bts.gov/ as of March 2013.

People in rural areas often live many miles from public transportation facilities such as an airport. For some years now, as carriers have dropped unprofitable or sparsely used routes, there has been a decline in passenger rail and intercity bus service in rural communities. Historically, people in rural areas could take scheduled intercity bus service to a distant destination, or to an airport or a train station where they could make connections. The 2010 BTS report, *U.S. Rural Population and Scheduled Intercity Transportation,* estimated that, between 2005 and 2010, 3.5 million rural residents lost access to scheduled intercity transportation, increasing the percent of rural residents without access to intercity transportation from 7 to 11 percent. In 2005, 5.4 million rural residents lacked access to intercity transportation, with that total increasing to 8.9 million rural residents in 2010. Of the 71.7 million rural residents retaining access in 2010, 3.7 million lost access to more than one intercity transportation mode during the 5-year period [USDOT RITA BTS, 2011b].

Declines in access to bus and rail service are among the changes illustrated in figure 2-5. In 2005, 89.0 percent of the rural population could get on an intercity bus within 25 miles of their residence; by 2010, this share had declined to 78.3 percent. There also was a slight (1.8 percent) decline in the share of the rural population living within 25 miles of a train station [USDOT RITA BTS 2011b].

Connections Between Public Transportation Modes

Passengers using public transportation often need or desire to make a connection from one mode of transportation to another in order to get to their destination. Intermodal links between modes of transportation (e.g., transit, intercity bus, or train station access at airports) give travelers more mobility options as well as more transportation options for people residing in communities near intermodal stations, thus enhancing livability. BTS has created an Intermodal Passenger Connectivity Database to show the extent to which passenger modes are linked with each other. Of the 7,114 bus, rail, air, and ferry terminals with scheduled intercity passenger transportation, 45.1 percent offer connections to at least one other mode. For example, 82.7 percent of the heavy rail stations offer connections with other modes and are the most connected (figure 2-6). Just over half of the Amtrak and Alaska Railroad stations (53.5 percent) offer connections with other modes as do 11.2 percent of intercity bus facilities, 24.0 percent of airports, and 40.3 percent of ferry terminals [USDOT RITA BTS 2011c].

Security Concerns

Efforts to prevent terrorist attacks include screening people as they go through security checkpoints at airports and other passenger facilities. The Transportation Security Administration (TSA) of the U.S. Department of Homeland Security reports that 889 firearms and 128,000 incendiaries (any substance or device that could be used to start a fire) were confiscated at airport screening checkpoints in 2009. TSA no longer provides specific details on intercepted items [USDOT RITA BTS 2012, Table 2-16b].

International piracy on the high seas is another security concern affecting U.S. citizens traveling overseas. The number of piracy incidents and armed robberies varies considerably from year to year. In 2011, there were 544 attempts and threatened actions, a 34.0 percent increase from 406 such incidents in 2009. The previous high years were 2003 (452 incidents) and 2000 (471) [IMO data shown in USDOT RITA BTS 2013, table 1-9]. A BTS report examined over 3,600 incidents of piracy and armed robbery occurring between 1998 and 2008. The report found that these incidents were declining or had stabilized in many regions of the world, with the exception of East Africa, where the number of incidents had grown and accounted for a growing share of the total [USDOT RITA BTS 2010].

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