Commuting in the United States: 2009

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This report describes patterns of commuting for the nation and metropolitan statistical areas (metro areas) based on the 2009 American Community Survey (ACS).[1] In the United States, commutes make up less than 20 percent of all trips taken, but play a unique role within the mix of overall trips by determining peak travel demand across transportation systems.[2] Federal, state, and local policymakers use the ACS to guide decisions about how to allocate limited public resources devoted to transportation. Planners use ACS commuting data to guide transportation improvement strategies, predict future travel demand, and gauge the amount of pressure placed on transportation infrastructure.

The ACS is an ongoing survey conducted annually by the U.S. Census Bureau that captures changes in the socioeconomic, housing, and demographic characteristics of communities across the United States and Puerto Rico.[3] The ACS questions with populations of 65,000 or greater, estimates are available annually. For selected geographies with populations of 20,000 or greater, combined 3-year estimates are available. For the smallest geographic areas, the Census Bureau released 5-year estimates for the first time in December 2010. These estimates are based on data collected between 2005 and 2009. Workers are civilians and members of the Armed Forces, 16 years and over, who were at work the previous week. Persons on vacation or not at work the prior week are not included.

Figure 1.
Reproduction of the Questions on Commuting From the 2009 American Community Survey

Source: U.S. Census Bureau,
2009 American Community Survey questionnaire.

[1] This report discusses data for the United States, including the 50 states and the District of Columbia, but not the Commonwealth of Puerto Rico. For more information on metropolitan statistical areas, please see <www.whitehouse.gov/omb/assets/omb/bulletins/fy2009/09-01.pdf>.

[2] Summary of Travel Trends: 2009 National Household Travel Survey. 2011. Technical Report No. FHWA-PL-11-022. <http://nhts.ornl.gov/publications.shtml>.

[3] The ACS uses a series of monthly samples to produce annual estimates. Detailed questions that previously appeared on the decennial census long form are now included in the ACS, and the decennial census now simply produces a count of the nation's population and a snapshot of its most basic demographic characteristics. The annual sampling rate for the ACS is about 2.5 percent of all housing units and includes residents living in group quarters. Five years of ACS data collection are necessary to achieve a cumulative sample large enough to ensure respondent confidentiality for smaller communities and for small geographies such as census tracts or block groups. For larger geographies, specifically those

United States Census Bureau

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related to travel focus solely on commuting and do not ask about leisure travel or other nonwork trips. This report discusses commuting characteristics for workers 16 years and over who were employed during the week prior to the ACS reference week and did not work at home.

Respondents answer questions about where they work, what time they leave home for work, the means of transportation used to get there, the number of workers riding in a car, truck, or van, and how long it takes to travel to work. A reproduction of these questions can be found in Figure 1. The central topics of each section of this report are based on these commuting questions.

For each commuting attribute, findings are presented at the national and metro area levels for a variety of population characteristics such as sex, race, ethnicity, and workplace location.[4] A set of more detailed tables associated with each commuting attribute is available for download through links provided throughout the report.

Commuting highlights from the 2009 ACS are:

- Over three-quarters of the nation's workers drove alone to work.
- Workers took an average of 25.1 minutes to get to work.

[4] The estimates in this report (which may be shown in text, figures, and tables) are based on responses from a sample of the population and may differ from actual values because of sampling variability or other factors. As a result, apparent differences between the estimates for two or more groups may not be statistically significant. All comparative statements have undergone statistical testing and are significant at the 90 percent confidence level unless otherwise noted.

Table 1.
Means of Transportation, Time Leaving Home, and Travel Time to Work: 2009

(Numbers in thousands. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www/*)

Characteristic	Total workers	Percent distribution	Margin of error[1] (±)
Means of Transportation to Work[2]			
Car, truck, or van	119,393	86.1	0.1
Drove alone	105,476	76.1	0.1
Carpooled	13,917	10.0	0.1
Public transportation	6,922	5.0	–
Bus or trolley bus	3,673	2.7	–
Streetcar or trolley car	89	0.1	–
Subway or elevated	2,372	1.7	–
Railroad	750	0.5	–
Ferryboat	37	0.0	–
Taxicab	157	0.1	–
Motorcycle	294	0.2	–
Bicycle	766	0.6	–
Walked	3,966	2.9	–
Other means	1,176	0.8	–
Worked at home	5,918	4.3	–
Time Leaving Home to Go to Work[3]			
12:00 a.m. to 4:59 a.m.	5,209	3.8	–
5:00 a.m. to 5:29 a.m.	4,647	3.4	–
5:30 a.m. to 5:59 a.m.	6,420	4.6	–
6:00 a.m. to 6:29 a.m.	11,408	8.2	–
6:30 a.m. to 6:59 a.m.	13,620	9.8	–
7:00 a.m. to 7:29 a.m.	19,536	14.1	–
7:30 a.m. to 7:59 a.m.	17,686	12.8	0.1
8:00 a.m. to 8:29 a.m.	14,565	10.5	0.1
8:30 a.m. to 8:59 a.m.	7,425	5.4	–
9:00 a.m. to 9:59 a.m.	8,287	6.0	–
10:00 a.m. to 10:59 a.m.	3,705	2.7	–
11:00 a.m. to 11:59 a.m.	1,747	1.3	–
12:00 p.m. to 3:59 p.m	9,270	6.7	–
4:00 p.m. to 11:59 p.m	9,150	6.6	–
Travel Time to Work[3]			
Less than 10 minutes	18,565	13.4	0.1
10 to 14 minutes	19,328	13.9	0.1
15 to 19 minutes	20,775	15.0	0.1
20 to 24 minutes	19,559	14.1	0.1
25 to 29 minutes	8,040	5.8	–
30 to 34 minutes	17,874	12.9	–
35 to 44 minutes	8,321	6.0	–
45 to 59 minutes	9,834	7.1	–
60 to 89 minutes	7,160	5.2	–
90 or more minutes	3,218	2.3	–
Mean travel time to work (minutes)	25.1	–	0.1

– Represents or rounds to zero.

[1] This number, when added to or subtracted from the estimate, represents the 90 percent confidence interval around the estimate.
[2] Workers 16 years and over.
[3] Workers 16 years and over who did not work at home.

Note: Because of sampling error, the estimates in this table may not be significantly different from one another.

Source: U.S. Census Bureau, American Community Survey, 2009.

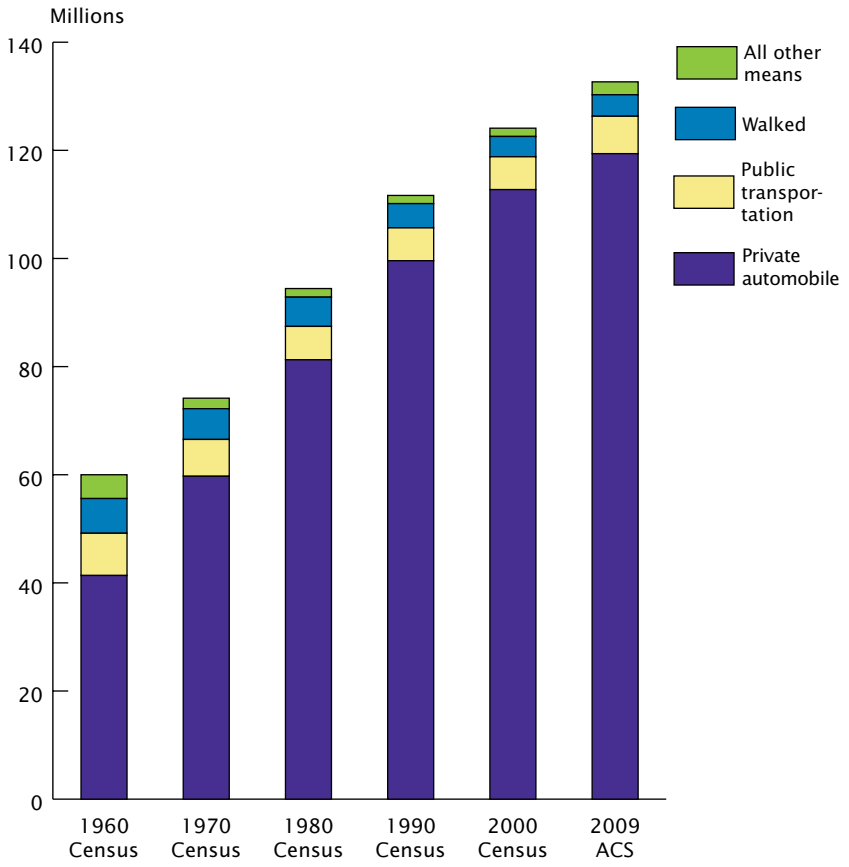
- Hispanic workers carpooled at a rate of 16.4 percent, compared with 9.5 percent for non-Hispanic workers.
- The rate of public transportation usage among the foreign-born population was 10.8 percent, more than twice that of the native-born population, at 4.1 percent.
- Suburban workers drove alone at a rate of 81.5 percent, compared with 72.1 percent for workers living inside of a principal city.
- The New York-Northern New Jersey-Long Island, NY-NJ-PA Metro Area had the longest average commute, at 34.6 minutes.
- The 10 metro areas with the shortest average commute times have populations of fewer than 300,000 people.

As communities change, the information collected in the ACS provides timely and relevant data upon which transportation planning decisions may be made. A major advantage of the ACS is its rich array of sociodemographic information. The ability to link information about commuting to sociodemographic characteristics and geography allows planners to forecast local peak travel demand and address unmet transportation needs more accurately.

A NATIONAL COMMUTING OVERVIEW FOR 2009

Table 1 shows that, among workers 16 years and over, 86.1 percent commuted in a car, truck, or van in 2009, and 76.1 percent drove to work alone. About 5 percent of workers commuted by public transportation, and about 3 percent walked to work. All other transportation modes were used by less than 1 percent of workers who did not work at home.

Figure 2.
Means of Transportation: 1960 to 2009
(Workers 16 years and over. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www/*)



Sources: U.S. Census Bureau, Decennial Census, 1960, 1970, 1980, 1990, 2000; U.S. Census Bureau, American Community Survey, 2009.

The private automobile's dominance among travel modes used for the commute represents a long-standing pattern. The 1960 Census was the first to include questions specifically related to commuting. Figure 2 shows that the number of workers who commuted by private automobile increased continuously between 1960 and 2009, from about 41 million to about 120 million.[5]

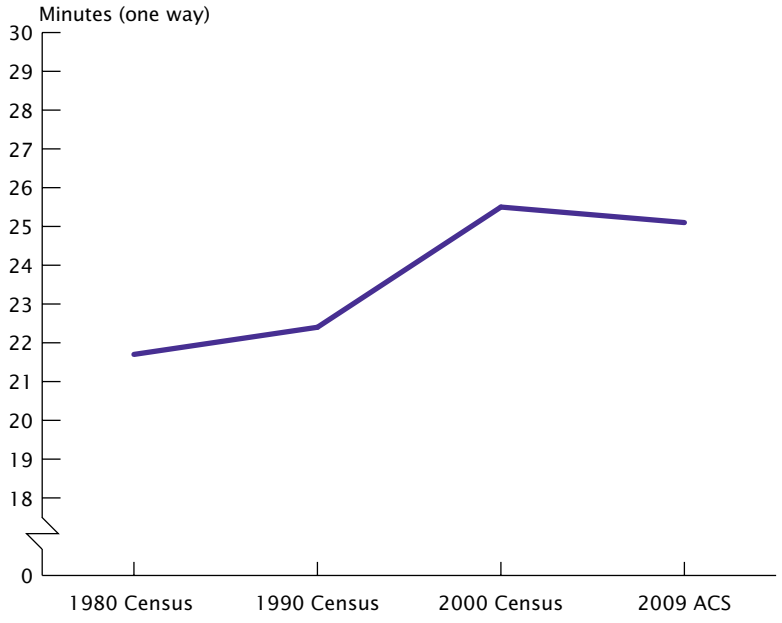
Information about when workers leave their homes for work plays an integral role in the regional transportation planning process by contributing to an understanding of traffic flow patterns on the nation's roads and public transportation infrastructure. Table 1 shows that over half of the nation's workers left their homes for work between 6:00 a.m. and 8:59 a.m. The 30-minute period with the highest percentage of departures (14.1 percent) occurred between 7:00 a.m. and 7:29 a.m. Less than 25 percent of the nation's workers left for work between 9:00 a.m. and 11:59 p.m.

[5] Figure 2 includes workers 16 years and over. All subsequent tables and figures include workers 16 years and over who did not work at home.

Figure 3.

Average Travel Time for Workers: 1980 to 2009

(Workers 16 years and over. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www/*)



Sources: U.S. Census Bureau, Decennial Census 1980, 1990, 2000; U.S. Census Bureau, American Community Survey, 2009.

Figure 3 shows mean travel time since 1980, the first year the census collected travel-time information. The mean travel time for workers was just under 22 minutes in 1980, then increased between 1980 and 2000 to about 25 minutes, where it remained in 2009. Just over 2 percent of workers took 90 minutes or more to get to work in 2009 (see Table 1). The questionnaires prior to Census 2000 permitted respondents to mark no more than two digits for their travel time, limiting reported travel time to 99 minutes. Three digits were made available in the Census 2000 questionnaire, which allowed results to show a greater range of extremely long commutes.

The amount of time workers spend commuting is an important indicator of shifts in the spatial distribution of workers' residences and their places of work. Travel-time shifts may also provide insight into other important community characteristics such as changes in workforce participation rates and shifts in the availability and usage of different transportation modes.

Table 1 provides a broad overview of key commuting patterns in the United States, but commuting patterns vary considerably across geographic scales and population subsets. Subsequent sections of this report illustrate these variations, beginning with a focus on differences in means of transportation across groups and regions.

MEANS OF TRANSPORTATION TO WORK

The 2009 ACS question related to means of transportation asked respondents in the workforce, "How did this person usually get to work LAST WEEK?" (see Figure 1, Question 31). Although commutes may involve multiple transportation modes (for example, driving to a train station and then taking a train), respondents are restricted to indicating the single travel mode used for the longest distance. Tracking changes in the distribution of means of transportation to work is important to the regional planning process for gauging the utility of transportation policy and budget decisions. This information also contributes to understanding unmet commuting needs for local populations, integral for addressing policy concerns related to mobility.

The characteristics of the communities to and from which workers commute have a great deal of influence on commuting choices, including the means of transportation used. For example, automobile congestion and the quality and availability of public transportation, sidewalks, and bicycle routes influence the relative utility and attractiveness of different transportation modes. These characteristics may vary considerably across and within places, especially when contrasting principal cities and suburbs.[6] This section takes a closer look at differences in how people get to work across several socioeconomic characteristics.[7]

[6] For more information about the definition of principal city, see the U.S. Office of Management and Budget document entitled "Update of Statistical Area Definitions and Guidance on Their Uses" at <www.whitehouse.gov/omb/assets/bulletins/b10-02.pdf>.

[7] Much of the information presented in this section comes from Supplemental Table A, Means of Transportation by Selected Characteristics: 2009, accessible online at <www.census.gov/hhes/commuting/>. This table presents the means of transportation for the work commute by several social, economic, and housing characteristics.

Racial/Ethnic Differences

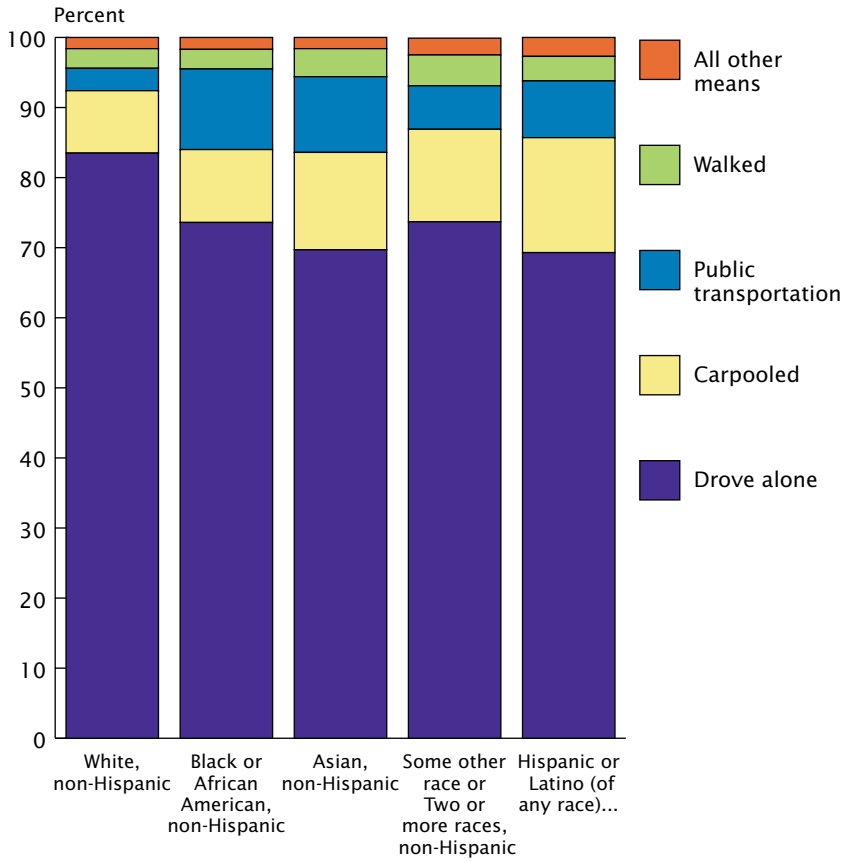
The percentage of non-Hispanic White workers who drove alone to work (83.5 percent) was about 10 percentage points higher than that of any other racial or ethnic group (see Figure 4).[8] The percentage of Hispanic and non-Hispanic Asian workers who drove alone did not exceed 70 percent. The comparatively low rate of Hispanic workers who drove alone was accompanied by a carpooling rate of 16.4 percent, notably higher than that of any other racial or ethnic group. Non-Hispanic Black workers had the highest rate of public transportation usage at 11.5 percent, more than three times higher than that of non-Hispanic White workers, at 3.2 percent. The rate of walking to work varied little across race and Hispanic origin groups, ranging between 2.8 and 4.4 percent.

Foreign-Born and Native-Born Differences

Figure 5 shows differences in commuting mode by nativity. The foreign-born population carpooled at a rate of 16.0 percent, compared with 9.4 percent for the native-born population.[9] The rate of public transportation usage among the foreign-born population was more than twice that of the native-born population (10.8 percent compared to 4.1 percent, respectively). Higher rates of carpooling and public transit usage among the foreign born may reflect differences between the foreign-born and native-born populations in sociodemographic characteristics related to travel behavior. For example, in 2009 the foreign-born population was more likely than the native-born population to live in families with incomes at or below the poverty level and in households with no available vehicle.[10]

Figure 4.
Means of Transportation by Race and Hispanic Origin: 2009

(Workers 16 years and over. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www/*)



Source: U.S. Census Bureau, American Community Survey, 2009.

How Home and Work Characteristics Affect the Commute

The percentage of workers living in renter-occupied units who commuted to work by public transportation (9.9 percent) was more than three times higher than that of workers in owner-occupied units

[8] Federal surveys now give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian and no other race (the race-alone or single-race concept) or as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in-combination concept). The body of this report (text, figures, and tables) shows data using the first approach (race alone). Use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches. For further information, see the Census 2000 Brief *Overview of Race and Hispanic Origin: 2000* (C2KBR/01-1) at <www.census.gov/population/www/cen2000/briefs.html>. This report may refer to the White-alone population as White, the Black-alone population as Black, the Asian-alone population as Asian, and the White-alone-non-Hispanic population as White, non-Hispanic. Because Hispanics may be any race, data in this report for Hispanics overlap with data for racial groups.

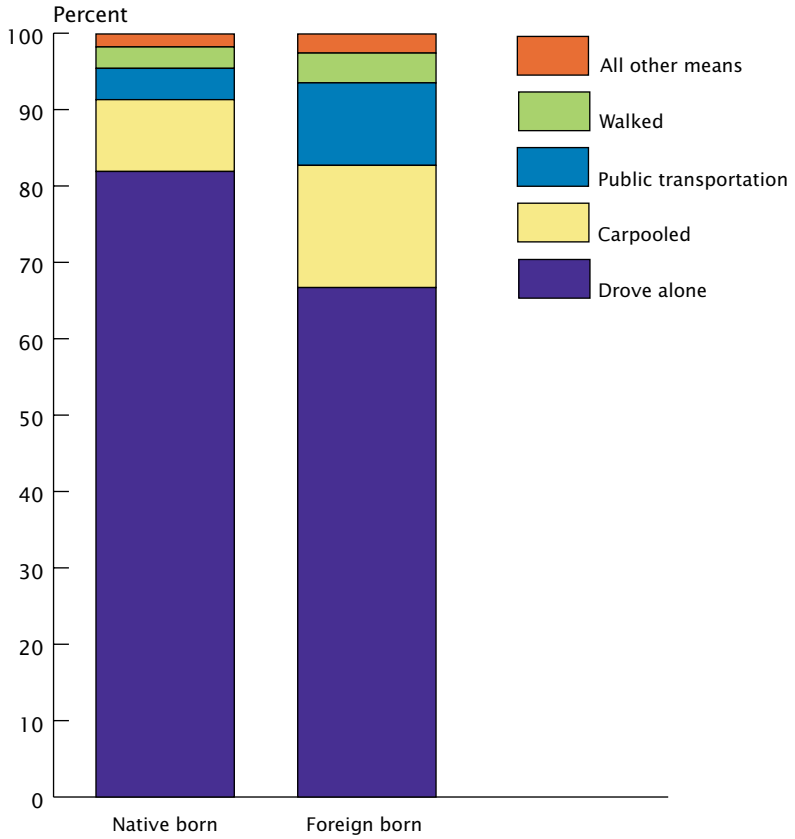
[9] "Native" or "native-born" includes people born in the United States, Puerto Rico, or U.S. Island Areas, or people born abroad of an American parent or parents.

[10] See Table S0501 from the 2009 ACS data on American FactFinder at <http://factfinder.census.gov>.

Figure 5.

Means of Transportation by Nativity: 2009

(Percent distribution of workers 16 years and over. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www/*)



Source: U.S. Census Bureau, American Community Survey, 2009.

(3.1 percent). At 46.7 percent, the percentage of workers living in noninstitutionalized group quarters, including (but not limited to) those living in college or university student housing, military barracks, and group homes walked to work at a rate considerably higher than any other group.[11]

There were notable differences in mode choice between workers residing in the suburbs and those living in the city (see Table 2). Suburban workers (those who lived in a metropolitan area and outside of a principal city) drove alone at a rate of 81.5 percent, compared with 72.1 percent for workers who lived inside of a principal city. Respondents who lived inside of a principal city in a metro area walked to work at a rate of 4.4 percent, higher than that of workers who lived outside of a principal city in a metro area or outside of any metro area. Workers who lived in a principal city and worked in the metro area of residence had the highest public transportation usage rate, at 10.9 percent.

A Closer Look at Public Transportation

In several regions, transportation-planning efforts aimed at relieving congestion and increasing mobility have shifted from strategies that favor road-building to those that favor multimodal solutions. Investment in new and existing public transportation infrastructure has played a crucial role in this effort.

At the national level, 5 percent of commuters used public transportation in 2009, but public transportation represents the second most common means of transportation after the private automobile. "Public transportation" includes bus, trolley, streetcar, subway, elevated rail, railroad, or ferry. Although these modes collectively account for only a small portion of the nation's overall commutes, they play prominent transportation roles within several of the nation's largest metro areas.

Figure 6 shows workers who commuted by any form of public transportation in the 50 largest metro areas in 2009.[12] The rate of public transportation usage was less than the national average of 5 percent for many of these metro areas, illustrating the concentration of public transportation trips among a handful of the nation's large and densely populated

[11] See Supplemental Table A, Means of Transportation by Selected Characteristics: 2009, at <www.census.gov/hhes/commuting/>.

[12] The 50 most populous metropolitan statistical areas are based on population estimates as of July 1, 2009.

Table 2.
Place of Work by Means of Transportation for Metropolitan Statistical Area Level: 2009

(Numbers in thousands. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www/)*

Metropolitan statistical area level	Total	Drove alone		Carpooled		Public transportation		Walked		All other means	
		Percent	Margin of error[1] (±)	Percent	Margin of error[1] (±)	Percent	Margin of error[1] (±)	Percent	Margin of error[1] (±)	Percent	Margin of error[1] (±)
Workers who lived inside principal city in metro area[2]	**44,239**	**72.1**	**0.1**	**10.5**	**0.1**	**10.6**	**0.1**	**4.4**	**0.1**	**2.4**	**–**
Worked inside metro area of residence	41,838	72.0	0.1	10.2	0.1	10.9	0.1	4.6	0.1	2.3	–
Worked inside different metro area	1,914	75.7	0.5	14.1	0.4	4.9	0.3	1.6	0.1	3.7	0.3
Worked outside any metro area[3]	486	68.7	1.3	16.0	1.1	8.2	0.8	2.9	0.4	4.2	0.5
Workers who lived outside principal city in metro area[2]	**43,164**	**81.5**	**0.1**	**10.3**	**0.1**	**3.9**	**–**	**2.6**	**–**	**1.6**	**–**
Worked inside metro area of residence	36,684	81.5	0.1	9.9	0.1	4.2	0.1	2.9	0.1	1.4	–
Worked inside different metro area	5,108	82.0	0.3	11.8	0.3	2.6	0.1	1.0	0.1	2.6	0.1
Worked outside any metro area[3]	1,372	81.5	0.5	13.2	0.5	1.0	0.2	1.6	0.2	2.7	0.2
Workers who lived outside any metro area[2,3]	**45,271**	**84.8**	**0.1**	**10.7**	**0.1**	**1.2**	**–**	**1.9**	**–**	**1.4**	**–**
Worked in metro area	3,147	83.9	0.3	13.4	0.3	0.6	0.1	0.6	0.1	1.6	0.1
Worked outside any metro area[3]	42,123	84.9	0.1	10.5	0.1	1.2	–	2.0	–	1.4	–

– Represents or rounds to zero.

[1] This number, when added to or subtracted from the estimate, represents the 90 percent confidence interval around the estimate.

[2] Workers 16 years and over who did not work at home.

[3] Outside any metropolitan statistical areas includes micropolitan statistical areas.

Note: Because of sampling error, the estimates in this table may not be significantly different from one another.

Source: U.S. Census Bureau, American Community Survey, 2009.

regions. The New York-Northern New Jersey-Long Island, NY-NJ-PA Metro Area had the highest percentage of workers who commuted by public transportation (30.5 percent), followed by the San Francisco-Oakland-Fremont, CA (14.6 percent), and the Washington-Arlington-Alexandria, DC-VA-MD-WV (14.1 percent) Metro Areas.

Figure 7 shows the percentage of workers who commuted by public transportation for all 366 metro areas in 2009. The percentage of public transportation commuters exceeded 10 percent in only five metro areas in 2009.[13] Although public transportation usage is generally higher in large metro areas, several relatively small metro areas with large universities also showed comparatively high rates of public transportation usage. For example, Ithaca, NY, and Ames, IA, had public transportation usage rates of 6.9 and 6.1 percent, respectively.

In several large metro areas, subway or elevated rail systems are integral components of the overall regional transportation system. The highest rate of subway or elevated rail commuting in 2009 occurred in the New York-Northern New Jersey-Long Island, NY-NJ-PA Metro Area, where about 19 percent of all workers used one of these modes, followed by the Washington-Arlington-Alexandria, DC-VA-MD-WV, and Boston-Cambridge-Quincy, MA-NH Metro Areas, at 8.4 and 6.3 percent, respectively.[14]

Commuting by Bicycle and Walking

Creating new infrastructure and altering existing infrastructure to accommodate bicycling and walking has become a goal for several metropolitan planning organizations across the United States.[15] Tables 3 and 4 show the 10 metro areas with the highest percentage of workers who commuted by bicycle and walked in 2009. Due

[13] For the following metro areas, the percentage of workers who commuted by public transportation in 2009 exceeded and was statistically different from 10 percent: New York-Northern New Jersey-Long Island, NY-NJ-PA; San Francisco-Oakland-Fremont, CA; Boston-Cambridge-Quincy, MA-NH; and Chicago-Naperville-Joliet, IL-IN-WI.

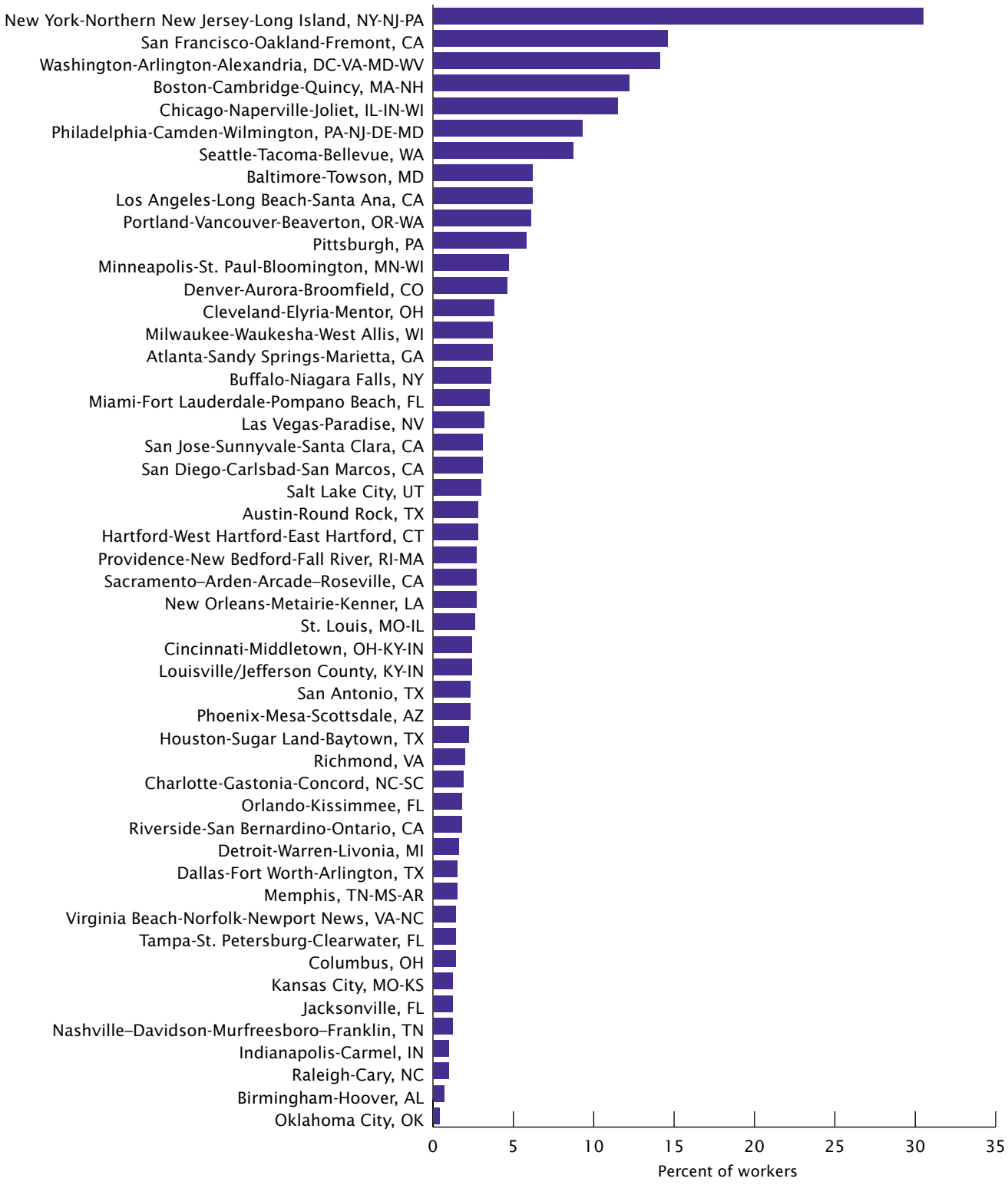
[14] See Table B08006 from the 2009 ACS data on American FactFinder at <http://factfinder.census.gov>.

[15] For example, the Cities for Cycling Program is a project of the National Association of City Transportation Officials that focuses on gathering and disseminating information about best practices for implementing bicycle-friendly infrastructure at the local level.

Figure 6.

Public Transportation Usage for the 50 Largest Metropolitan Statistical Areas: 2009

(Workers 16 years and over. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www/*)



Source: U.S. Census Bureau, American Community Survey, 2009.

Figure 7.

Percentage of Workers Who Commuted by Public Transportation by Metropolitan Statistical Area: 2009

(Workers 16 years and over. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www*)

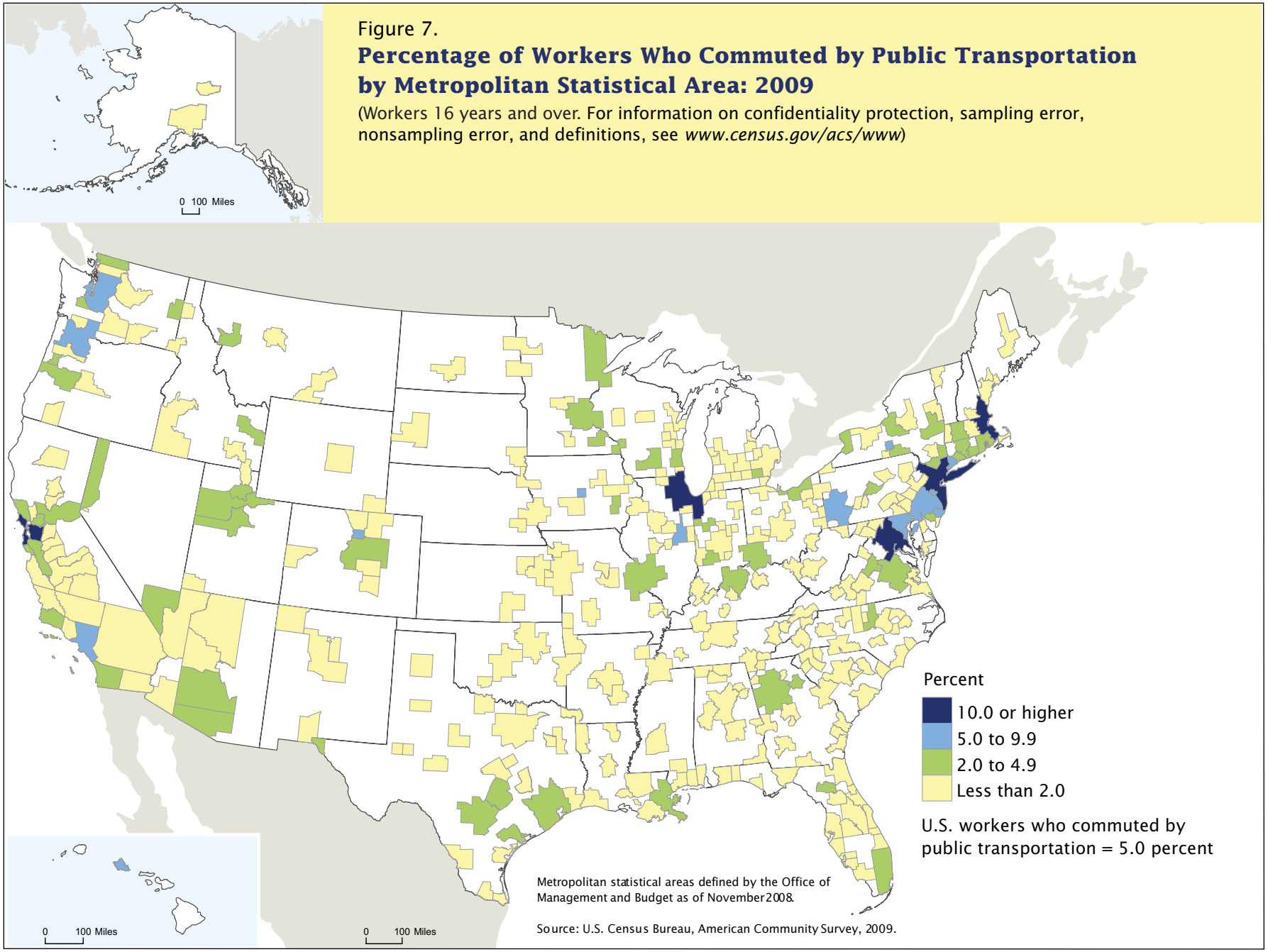


Table 3.

Top Ten Metro Areas for Commutes to Work by Bicycle: 2009

(Numbers in thousands. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www/)*

Metropolitan statistical area	Commuted by bicycle[1]	
	Percent	Margin of error[2] (±)
Corvallis, OR	9.3	3.1
Eugene-Springfield, OR	6.0	1.2
Fort Collins-Loveland, CO	5.6	2.1
Boulder, CO	5.4	1.2
Missoula, MT	5.0	1.8
Santa Barbara-Santa Maria-Goleta, CA	4.0	0.9
Gainesville, FL	3.3	1.2
Logan, UT-ID	3.3	1.4
Chico, CA	3.0	1.2
Bellingham, WA	3.0	1.3

[1] Workers 16 years and over.

[2] This number, when added to or subtracted from the estimate, represents the 90 percent confidence interval around the estimate.

Note: Because of sampling error, the estimates in this table may not be significantly different from one another.

Source: U.S. Census Bureau, American Community Survey, 2009.

Table 4.

Top Ten Metro Areas for Commutes to Work by Walking: 2009

(Numbers in thousands. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www/)*

Metropolitan statistical area	Walked to work[1]	
	Percent	Margin of error[2] (±)
Ithaca, NY	15.1	3.2
Corvallis, OR	11.2	3.0
Ames, IA	10.4	2.9
Champaign-Urbana, IL	9.0	1.5
Manhattan, KS	8.5	2.4
Ocean City, NJ	8.4	2.9
Iowa City, IA	8.2	1.4
Hinesville-Fort Stewart, GA	8.2	5.1
Jacksonville, NC	8.1	3.0
State College, PA	8.0	2.0

[1] Workers 16 years and over.

[2] This number, when added to or subtracted from the estimate, represents the 90 percent confidence interval around the estimate.

Note: Because of sampling error, the estimates in this table may not be significantly different from one another.

Source: U.S. Census Bureau, American Community Survey, 2009.

to relatively small sample sizes for estimates, the margins of error for both the top biking metro areas and the top walking metro areas tend to be large and, as a result, estimates for some metro areas may not be statistically different from others on the list.

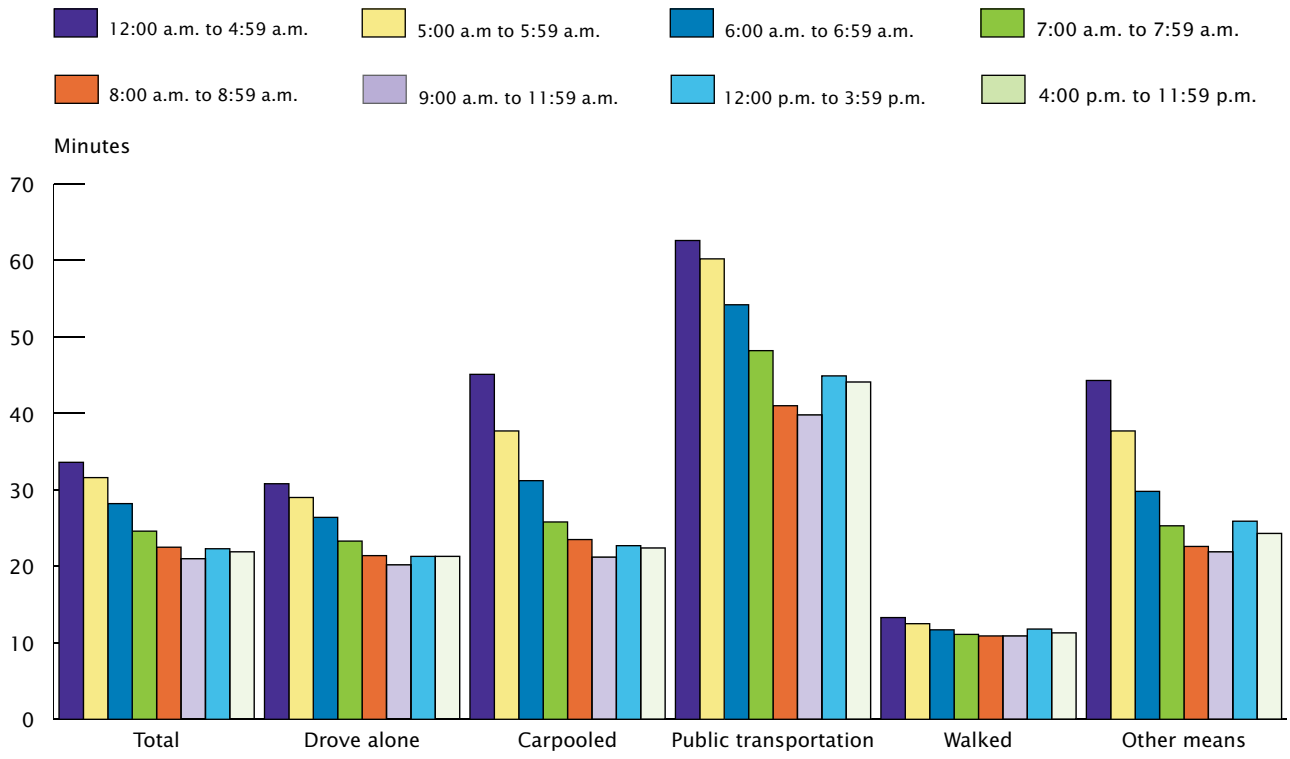
Some common characteristics stand out among the metro areas featured in Tables 3 and 4. Each metro area had a population of less than 500,000 in 2009. Several were also home to at least one large college or university and had high proportions of college-aged students. For example, 18- to 24-year-olds accounted for about 17 percent of the population of the Missoula, MT Metro Area in 2009, and about 25 percent of the population of the Corvallis, OR Metro Area, compared with about 10 percent in this age category for the nation (not shown).[16] Corvallis is the only metro area to appear on both the bicycle and walking lists. Oregon is also notable because the Portland-Vancouver-Beaverton, OR-WA Metro Area, with a bicycle commuting rate of 2.3 percent, was the only metro area with a population of over 1 million with a bicycle commuting rate of at least 2 percent.

[16] See Table S0101 from the 2009 ACS data on American FactFinder at <http://factfinder.census.gov>.

Figure 8.

Mean Travel Time by Means of Transportation by Time of Departure

(Workers 16 years and over. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www/*)



Source: U.S. Census Bureau, American Community Survey, 2009.

TIME OF DEPARTURE FOR WORK

Information about when workers leave for work plays an integral role in the regional transportation planning process, especially by contributing to an understanding of congestion patterns on the nation's roads and public transportation infrastructure. Table 1 suggests that the volume of commuter travel occurring on the nation's transportation infrastructure varies considerably during a typical day.

The majority of all U.S. workers depart in the morning, but there are important differences in the distribution of departures across sociodemographic subgroups, means of transportation, and subsequent mean travel time. The following section highlights these differences.[17]

Mean Travel Time by Time of Departure and by Means of Transportation

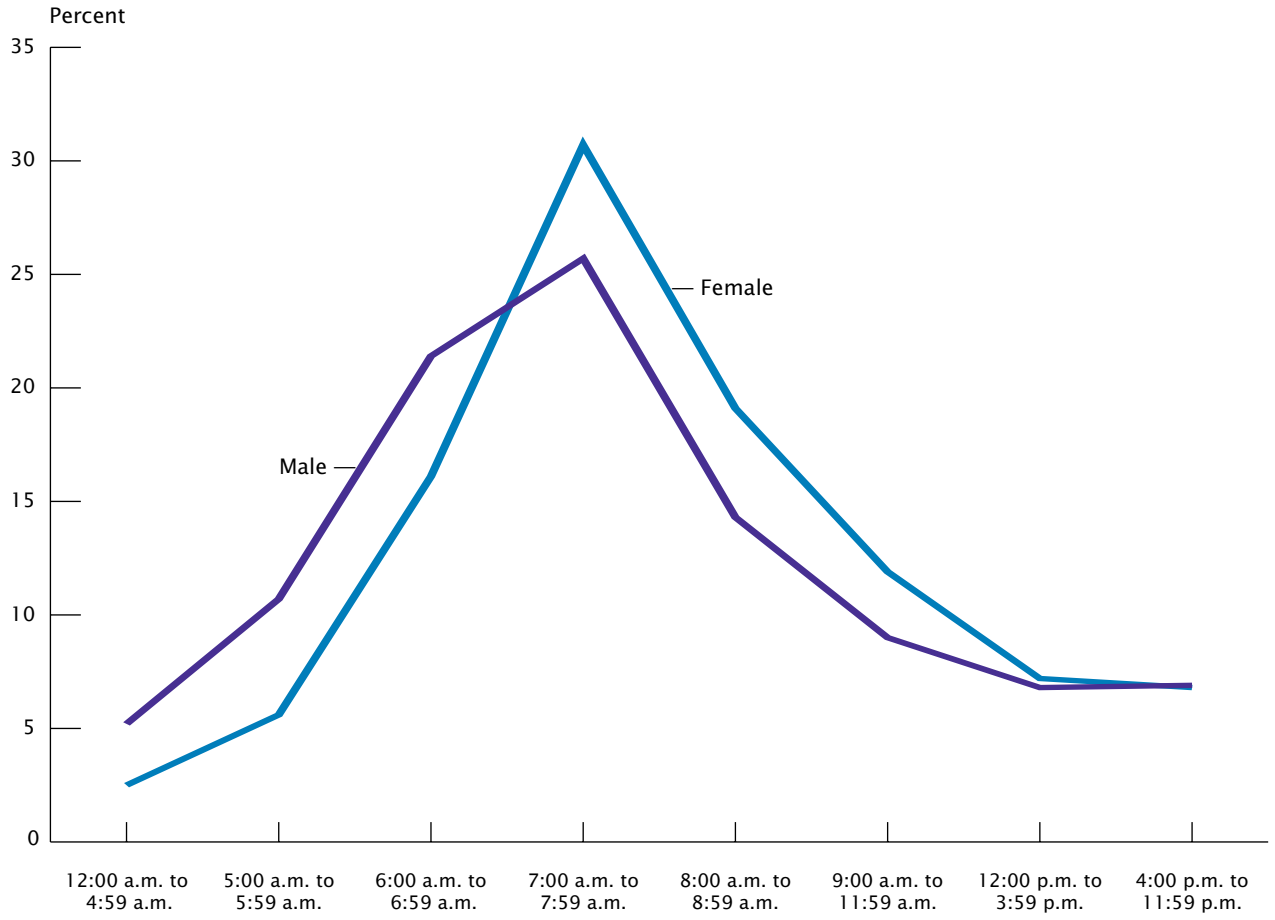
Figure 8 shows mean travel time by time of departure and means of transportation for the United States in 2009. The longest average travel times were associated with early-morning departures, and travel time decreased as the morning progresses. This trend suggests that many workers who depart for work relatively early may do so to compensate for long work commutes.

[17] See Supplemental Table B, Time of Departure to Work by Selected Characteristics: 2009, at <www.census.gov/hhes/commuting/>.

Figure 9.

Time of Departure by Sex of Worker: 2009

(Workers 16 years and over. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www/*)



Source: U.S. Census Bureau, American Community Survey, 2009.

Those who relied on public transportation had the longest commutes across all departure-time categories, especially in the earliest departure categories. Compared with all other modes, workers who walked to work had the shortest mean travel time for every departure-time category. Workers who carpooled took longer to get to work than those who drove alone. This difference was largest for the 12:00 a.m. to 4:59 a.m. period, where mean travel time for carpool commuters was 45.1 minutes, compared with 30.8 minutes for workers who drove alone.

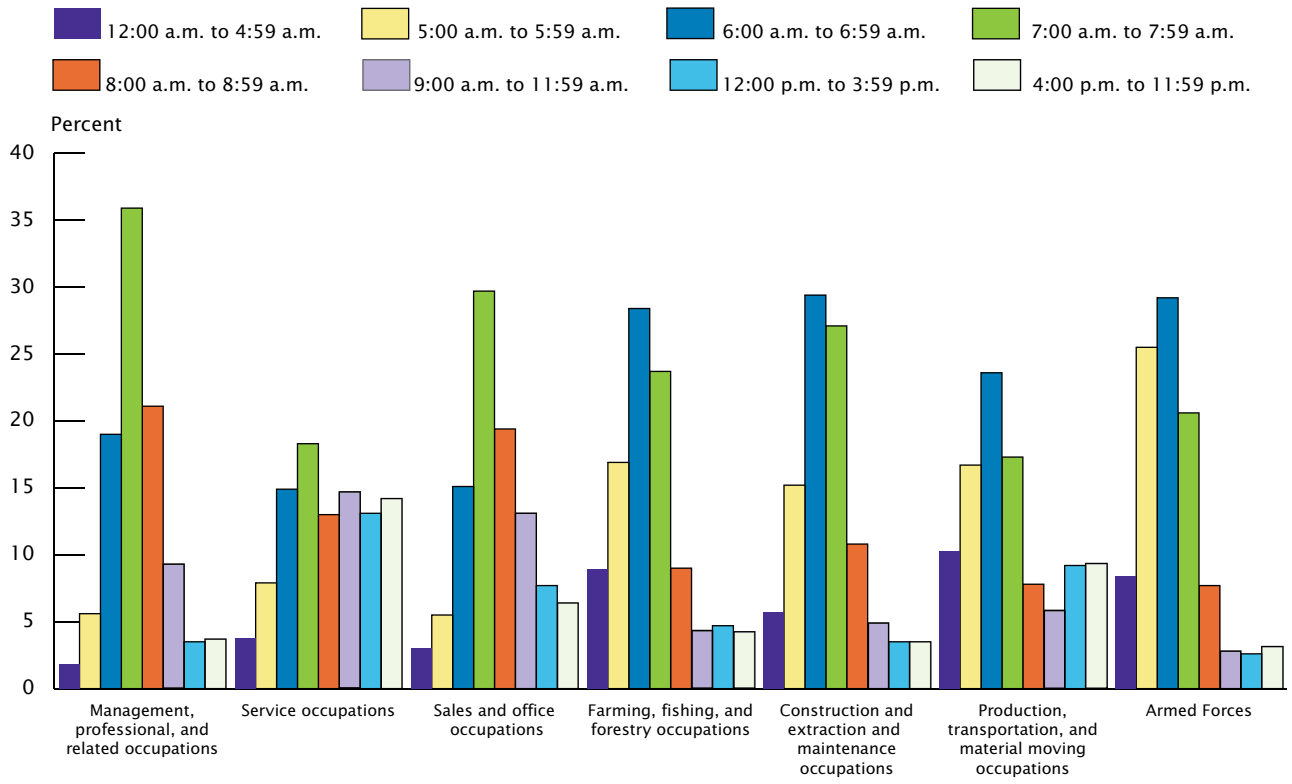
Men Left for Work Earlier Than Women

The most common time of departure for both male and female workers was between 7:00 a.m. and 7:59 a.m. Male workers were more likely to leave for work before 7:00 a.m. than their female counterparts. Almost 40 percent of men left before 7:00 a.m., compared with less than 25 percent of women (see Figure 9). All departure time categories from 7:00 a.m. through 3:59 p.m. included a greater percentage of women than men.

Figure 10.

Time of Departure by Occupation: 2009

(Workers 16 years and over. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www/*)



Source: U.S. Census Bureau, American Community Survey, 2009.

Departure Times Varied by Occupation

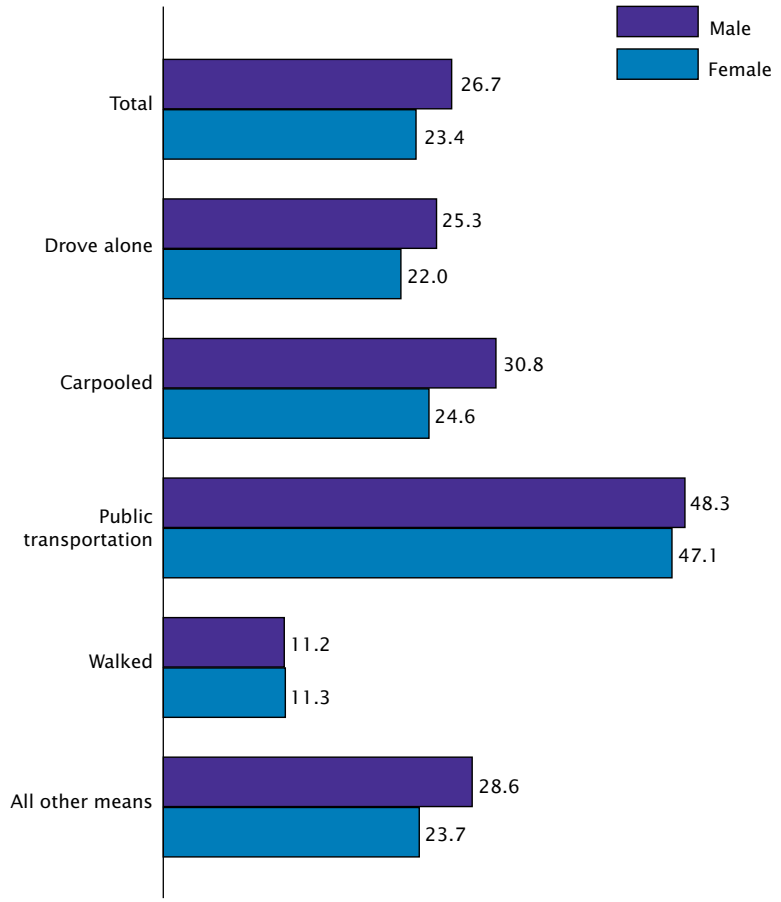
Figure 10 shows that at 10.5 percent, workers in production, transportation, and material moving occupations were more likely to depart for work between 12:00 a.m. and 4:59 a.m. than any other occupational category. At 1.9 percent, those in managerial, professional, and related occupations had the lowest percentage of departures between 12:00 a.m. and 4:59 a.m. Over one third of all workers in management, professional, and related occupations left for work between 7:00 a.m. and 8:00 a.m. Departures for service workers were more evenly distributed across the day compared with other occupation categories. For service workers, no time of departure category exceeded 20 percent.

TRAVEL TIME TO WORK

The ACS asks respondents in the workforce how many minutes it usually takes them to get from home to work (see Figure 1, Question 34). Changes in average commuting times at the community level may reflect several factors working in concert, including changes in the community's population and infrastructure, as well as shifts in regional labor market patterns. As communities change, the ACS provides an important tool for understanding the social and economic forces that influence travel time. The 2009 ACS reveals that average commute times in large metro areas were generally longer than those in smaller metro areas and that commute times also varied across sociodemographic characteristics, as discussed in this section.[18]

[18] Unless otherwise stated, the travel-time information provided in subsequent sections is based on Supplemental Table C, Mean Travel Time to Work by Means of Transportation and Selected Characteristics: 2009, available online at <www.census.gov/hhes/commuting/>.

Figure 11.
Mean Travel Time and Means of Transportation by Sex: 2009
(In minutes. Workers 16 years and over. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www/*)



Source: U.S. Census Bureau, American Community Survey, 2009.

Men Took Longer to Get to Work Than Women

Overall, the mean travel time for male workers was significantly longer than for female workers (see Figure 11). Men took an average of 26.7 minutes to get to work, compared with 23.4 minutes for women. For all transportation modes except walking, the mean travel time for women was significantly shorter than it was for men.

For both male and female workers, the average travel time for workers who commuted by public transportation was over 20 minutes longer than that of their counterparts who drove alone.

Demographic Variation in Travel Time

Figure 12 shows mean travel time by race and Hispanic origin. Non-Hispanic White workers had the shortest mean travel times for the categories of walking and driving alone. Non-Hispanic Black workers who commuted to work by public transportation had the longest average travel time, at 50.0 minutes, although this is not statistically different from that of workers of some other race or two or more races. Non-Hispanic Black workers also had the longest average walking travel time, at about 14 minutes. Hispanic or Latino workers had the longest mean travel time when carpooling (29.0 minutes), but the shortest mean travel time for public transportation usage (46.0 minutes).

For all workers combined, public transportation commuters averaged over 20 minutes longer getting to work than those who drove alone.[19] Mean travel time also varied by nativity status. The average travel time for foreign-born workers was 28.1 minutes, compared with 24.9 minutes for native-born workers.

Average Commute Time Across Metro Areas and Their Components

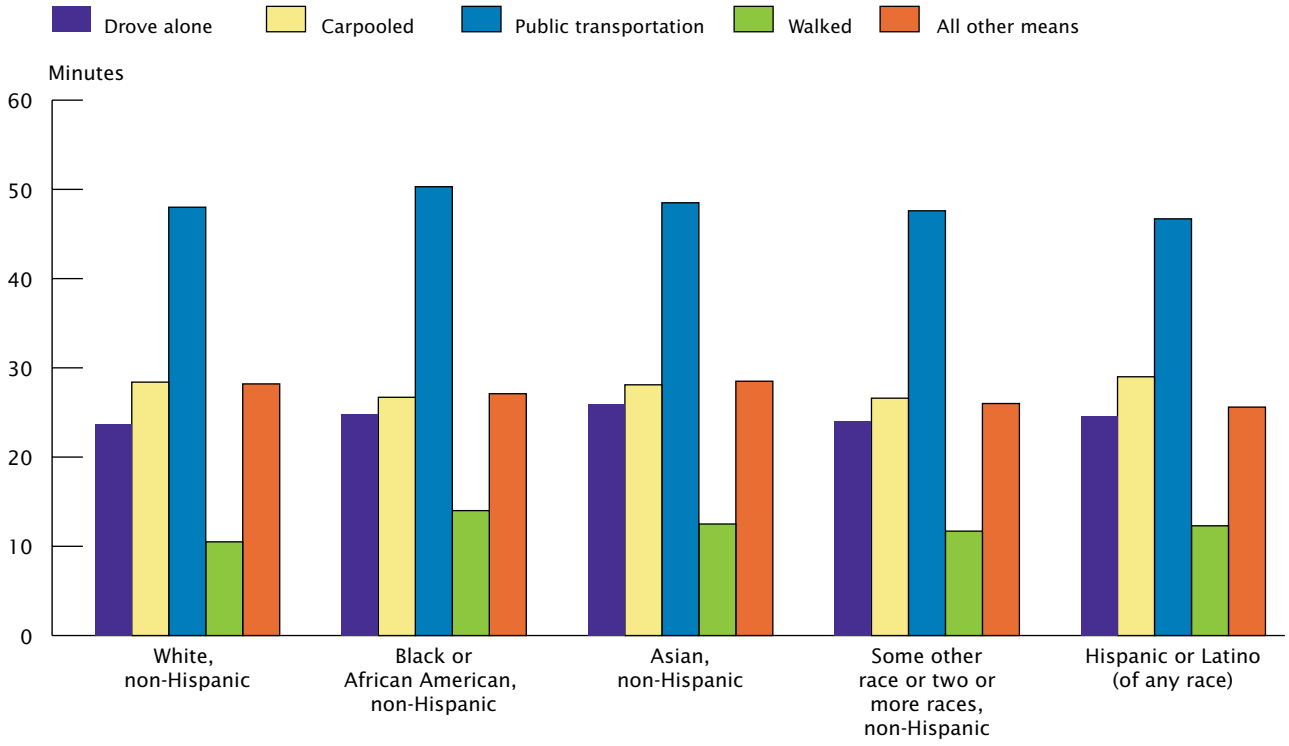
Table 5 presents mean travel time for workers who lived in metropolitan areas for different commute types. For example, workers who lived in a metro area and worked outside any metro area had the longest average commute times, at 43.4 minutes, followed by workers who lived outside a principal city (in a metropolitan area) and worked inside a principal city, who traveled an average of 30.4 minutes. For each home-to-work trip combination, public transportation commuters had the longest mean travel

[19] See Supplemental Table C, Mean Travel Time to Work by Means of Transportation and Selected Characteristics: 2009, at <www.census.gov/hhes/commuting/>.

Figure 12.

Mean Travel Time by Race and Hispanic Origin: 2009

(Workers 16 years and over. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www/*)



Source: U.S. Census Bureau, American Community Survey, 2009.

time, while walkers had the shortest. Workers who took public transportation, lived in a metro area, and worked outside any metro area had the longest average commute time at 71.1 minutes. Workers who walked to work and lived and worked in a metro area, but outside of a principal city, had the shortest mean travel time, at 9.6 minutes.

Table 6 provides ranked lists of the metropolitan statistical areas with the shortest and longest commutes. Metropolitan area size has a considerable bearing on mean travel time. The 10 metro areas with the shortest mean travel times have populations of fewer than 300,000 people. The Great Falls, MT Metro Area had the shortest mean travel time at 14.2 minutes, although this estimate was not statistically different from that of three other metro areas.[20]

Among the 10 metro areas with the longest travel times, several are among the nation's most populous. For example, the New York-Northern New Jersey-Long Island NY-NJ-PA Metro Area had the longest average travel time at 34.6 minutes, followed by the Washington-Arlington-Alexandria, DC-VA-MD-WV Metro Area, with an average travel time of 33.4 minutes.

Also among the 10 metro areas with the longest commutes are several smaller metro areas located near a much larger one. For example, the Poughkeepsie-Newburgh-Middletown, NY Metro Area had the third-longest average commute time at 32.2 minutes, which was influenced by a substantial percentage of its residents commuting to the New York-Northern New Jersey-Long Island NY-NJ-PA Metro Area.[21] Figure 13 shows the variation in mean travel time across metro areas in 2009.

[20] The travel-time estimate for the Great Falls, MT Metro Area is not statistically different from Lewiston, ID-WA; Grand Forks, ND-MN; and Cheyenne, WY.

[21] The travel-time estimate for the Poughkeepsie-Newburgh-Middletown, NY Metro Area is not statistically different from Bremerton-Silverdale, WA.

Table 5.

Means of Transportation and Mean Travel Time to Work for Workers Living in Metro Areas: 2009

(Travel time to work is in minutes. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www/)*

Place	Total		Drove alone		Carpooled		Public transportation		Walked		All other means	
	Mean travel time	Margin of error[1] (±)	Mean travel time	Margin of error[1] (±)	Mean travel time	Margin of error[1] (±)	Mean travel time	Margin of error[1] (±)	Mean travel time	Margin of error[1] (±)	Mean travel time	Margin of error[1] (±)
Workers 16 years and over who did not work at home	**25.7**	**–**	**24.2**	**–**	**28.0**	**0.1**	**47.8**	**0.2**	**11.9**	**0.1**	**27.5**	**0.4**
Lived and worked inside same metro area	24.2	–	22.7	–	25.7	0.1	47.0	0.2	12.0	0.1	22.6	0.4
Lived and worked inside same principal city	21.1	0.1	17.6	0.1	20.8	0.2	42.5	0.2	13.0	0.2	19.4	0.4
Lived and worked inside different principal cities	28.6	0.2	26.5	0.2	29.4	0.5	49.9	0.7	16.5	1.5	29.1	1.4
Lived inside principal city, worked outside principal city	26.1	0.1	24.4	0.1	27.9	0.3	53.3	0.9	16.1	1.0	27.2	1.5
Lived outside principal city, worked inside principal city	30.4	0.1	28.2	0.1	32.0	0.2	57.8	0.4	16.7	1.4	30.9	1.0
Lived and worked outside principal city	21.9	0.1	21.7	0.1	24.3	0.2	42.9	0.8	9.6	0.2	21.4	0.6
Lived in metro area and worked outside metro area	43.4	0.2	41.2	0.2	49.7	0.7	71.1	1.3	11.0	0.7	62.0	1.8

– Represents or rounds to zero.

[1] This number, when added to or subtracted from the estimate, represents the 90 percent confidence interval around the estimate.

Note: Because of sampling error, the estimates in this table may not be significantly different from one another.

Source: U.S. Census Bureau, American Community Survey, 2009.

Table 6.

Metro Areas With the Longest and Shortest Commutes: 2009

(In minutes. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www/)*

Metropolitan statistical area	Mean travel time to work[1]	Margin of error[2] (±)
Ten Longest Commutes		
New York-Northern New Jersey-Long Island, NY-NJ-PA	34.6	0.1
Washington-Arlington-Alexandria, DC-VA-MD-WV	33.4	0.3
Poughkeepsie-Newburgh-Middletown, NY	32.2	1.0
Bremerton-Silverdale, WA	30.8	1.4
Chicago-Naperville-Joliet, IL-IN-WI[3]	30.7	0.2
Winchester, VA-WV	30.3	2.1
Atlanta-Sandy Springs-Marietta, GA	30.1	0.3
Riverside-San Bernardino-Ontario, CA	30.0	0.4
Stockton, CA	29.8	1.2
Baltimore-Towson, MD	29.7	0.3
Ten Shortest Commutes		
Great Falls, MT	14.2	0.8
Lewiston, ID-WA	14.7	1.5
Grand Forks, ND-MN	15.1	1.1
Lubbock, TX	15.5	0.8
Missoula, MT	15.8	1.0
San Angelo, TX	15.9	1.3
Cheyenne, WY	15.9	1.8
Midland, TX	16.0	0.7
Lawton, OK	16.0	0.8
Decatur, IL	16.5	0.9

[1] Workers 16 years and over who did not work at home.

[2] This number, when added to or subtracted from the estimate, represents the 90 percent confidence interval around the estimate.

[3] The mean travel time for workers in the San Juan-Caguas-Guaynabo, Puerto Rico metropolitan area was 30.8 minutes, the fifth highest among metropolitan areas in the United States and its territories.

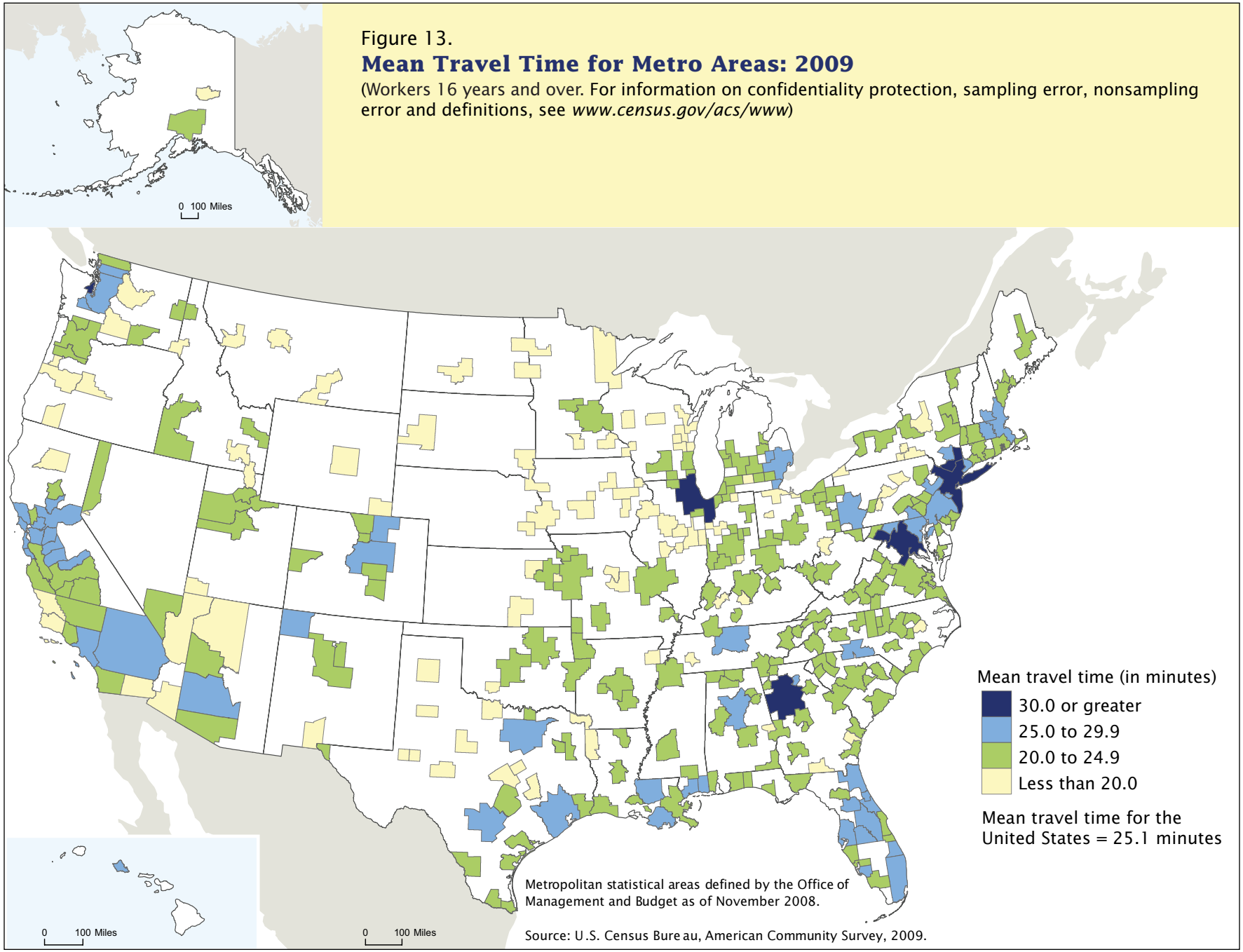
Note: Because of sampling error, the estimates in this table may not be significantly different from one another.

Source: U.S. Census Bureau, American Community Survey, 2009.

Figure 13.

Mean Travel Time for Metro Areas: 2009

(Workers 16 years and over. For information on confidentiality protection, sampling error, nonsampling error and definitions, see *www.census.gov/acs/www*)



Source: U.S. Census Bure au, American Community Survey, 2009.

SUMMARY

Commuting in the United States is dominated by private automobile travel, as is evidenced by the large proportion (86.1 percent) of workers 16 years and over who commuted by car, truck, or van in 2009. About three-quarters of workers drove to work alone in that year. The dominance of the automobile at the national level should not obscure the considerable variation in modal usage across geographic areas. This report highlights metro areas with comparatively high usages of transportation modes other than the private automobile.

Several smaller metropolitan areas have high proportions of workers who commute by walking or bicycle, and transit commuters are concentrated within a small number of large metropolitan areas. Differences in average travel times also vary geographically. The metro areas with the shortest travel times tend to have smaller populations, while the longest commutes are associated with the nation's largest metro areas.

Some of the most striking categorical differences in commuting behavior are found among characteristics associated with race, ethnicity, and sex. For example, non-Hispanic White workers drove alone at a rate of about 10 percentage points higher than that of any other racial or ethnic group. Hispanic workers carpooled at a rate much higher than non-Hispanic workers. And non-Hispanic Black workers who commuted by public transportation had the longest average travel time. Regardless of transportation mode (with the exception of walking), women generally had shorter travel times and later commutes than men.

Changes in the socioeconomic and demographic landscapes of communities are accompanied by changes in commuting patterns. Timely information about commuting patterns enables planners and policy makers to make informed decisions about investment in the nation's infrastructure, enables researchers to identify unmet transportation needs, and provides the tools necessary for working toward more efficient and equitable transportation solutions.

ADDITIONAL SOURCES FOR COMMUTING DATA

Additional ACS information related to the work commute or place of work is available on the Census Bureau's American FactFinder Web site at <http://factfinder.census.gov>. American FactFinder allows users to view data for several sociodemographic characteristics at various geographies.

The National Household Travel Survey (NHTS) is the nation's largest survey focusing specifically on travel. It collects household data on daily trips and is not limited to the commute. The NHTS provides a valuable contribution to understanding national-level travel patterns. More information about the NHTS can be found at <http://nhts.ornl.gov/>.

Several special tabulations related to commuting are available from the Census Transportation Planning Products (CTPP). The CTPP is a collaborative effort among the U.S. Census Bureau and several transportation-related agencies to produce a set of tabulations designed for transportation planners. The CTPP contains residence data summarizing worker and household characteristics, place of work data summarizing worker characteristics, and commuting flow data. The most recent CTPP tabulations are based on the ACS 3-year data from 2006 to 2008. Visit <http://ctpp.transportation.org> to access CTPP data.

The Longitudinal Employer-Household Dynamics (LEHD) dataset relates where people live to where they work using quarterly census of employment and wages (ES-202) data derived from reports filed by all employers subject to unemployment compensation laws. LEHD is a project of the Census Bureau that combines federal and state administrative data on employers and employees with the rich array of sociodemographic information from decennial censuses and the ACS. The LEHD dataset potentially provides an alternative source of place of work and flow data because it is built from administrative records, not the ACS survey. More information about LEHD can be found at <http://lehd.did.census.gov/led/>.

SOURCE OF THE DATA AND ACCURACY OF THE ESTIMATES

The American Community Survey

Many of the findings presented in this report were based on the American Community Survey (ACS) data collected in 2009. These data were based on the population living in either households or group

quarters (which include correctional facilities, nursing homes, college dormitories, group homes, and overnight shelters) that were included in the ACS sample. The U.S. Census Bureau is both the sponsor and the collector of the American Community Survey. The 2009 ACS is based on a sample of just under 3 million housing unit addresses and a separate sample of just under 200 thousand people living in group quarters. ACS figures are estimates based on this sample and approximate the actual figures that would have been obtained by interviewing the entire household and group quarters populations using the same methodology. The estimates from the 2009 ACS sample may also differ from estimate based on other survey samples of housing units and group quarters and the people living within those housing units and group quarters.

SAMPLING AND NONSAMPLING ERROR

Sampling error occurs when the characteristics of a sample are measured instead of those of the entire population (as from a census). Note that sample-based estimates will vary depending on the particular sample selected from the population, but all attempt to approximate the actual figures. Measures of the magnitude of sampling error reflect the variation in the estimates over all possible samples that could have been selected from the population using the same sampling, data collection, and processing methods. Estimates of the magnitude of sampling errors are provided in the form of margins of error for all key ACS estimates included in this report. The Census Bureau recommends that data users incorporate this information into their analyses, as sampling error in survey estimates could impact the conclusions drawn from the results. All comparative statements in this report have undergone statistical testing, and comparisons are significant at the 90 percent confidence level unless noted otherwise. This means the 90 percent confidence interval for the difference between the estimates being compared does not include zero. In addition to sampling error, nonsampling errors may be introduced during any phase of data collection or processing. For example, operations such as editing, reviewing, or keying data from questionnaires may introduce error into the estimates. The primary source of nonsampling error and the processes instituted to control error in the 2009 ACS are described in further detail in the 2009 ACS Accuracy of the Data document (see Web link below). Title 13, U.S. Code, Section 9, prohibits the Census Bureau from publishing results from which the identity of an individual survey respondent could be determined. For more information on how the Census Bureau protects the confidentiality of data, see the 2009 ACS Accuracy of the Data document, available at <www.census.gov/acs/www/Downloads/data_documentation/Accuracy/ACS_Accuracy_of_Data_2009.pdf>.

FOR MORE INFORMATION

Further information from the 2009 ACS is available on the Census Bureau's Web site, at <www.census.gov/acs/www/>.

Measures of ACS quality—including sample size and number of interviews, response and nonresponse rates, coverage rates, and item allocation rates—are available at <www.census.gov/acs/www/methodology/methodology_main/>. For more information about commuting, go to the U.S. Census Bureau's Commuting (Journey to Work) Web site, at <www.census.gov/hhes/commuting/>.

CONTACT

Contact U.S. Census Bureau Customer Services Center at 1-800-923-8282 (toll free) or visit <ask.census.gov> for further information.

SUGGESTED CITATION

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