The Commuting Patterns of Older Workers: 2013–2017

American Community Survey Reports

By Michael Burrows, Charlynn Burd, Adam Smith, Wan He, and Brian McKenzie Issued November 2020 ACS-45



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INTRODUCTION

The population in the United States is aging rapidly. From 2008 to 2017, the U.S. population aged 65 and older grew by 31 percent, from 38.8 million in 2008 to 50.8 million in 2017 (U.S. Census Bureau, 2019). In contrast, the total population grew 6.9 percent during the same time period. The disproportionate increase of the older population is in part associated with the generation of Baby Boomers, who began turning age 65 in 2011.¹

Baby Boomers' impact on the U.S. population age structure is also reflected in the changing age composition of the nation's workforce. In 2017, Baby Boomers were between 53 and 71 years of age. In contrast to declining labor force participation among the population aged 16 and older between 2008 and 2017, labor force participation rates increased for the older population (Table 1). Coupled with the flooding of Baby Boomers into the ranks of the older population, the labor force aged 55 and older as a share of all workers grew from 17.7 percent in 2008 to 22.1 percent in 2017 (Table 1); this trend is projected to continue in the next several decades (Kromer and Howard, 2013; Toossi, 2012, 2016).

¹ The Baby Boomers in the United States include people born from mid-1946 to 1964. This post World War II baby boom resulted in one of the largest generations in U.S. history.

DEFINITION OF OLDER WORKERS IN THIS REPORT

In this report, older workers are defined as those aged 55 and older who report to work. Age 55 is a commonly used threshold in labor market analyses and an age after which labor force participation begins to decline markedly. The analysis is further stratified to differentiate workers who are 65 years and older to account for workers who continue to work beyond traditional retirement ages. This more advanced age threshold is common in the transportation literature (for examples, see Alsnih and Hensher, 2003; Horner, Schleith, and Widener, 2015).

In the interest of presenting more detailed patterns within the oldest group of workers, limited additional statistics for workers aged 65-74 and 75 and older are also provided. In Tables 1, 2, A-1, and A-3, we look specifically at workers aged 75 and older, a group likely to experience a unique set of conditions meriting additional analysis. The report's main analysis includes workers aged 16 and older. It also further separates the under 55 workforce into age groups of 16-24 and 25-54 to facilitate comparisons between older and younger workers.

Table 1.

Labor Force Participation by Selected Age Group: 2008 to 2017

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

Year	16 and older	55 and older	55 to 64	65 to 74	75 and older
Percentage in Labor Force					
2008	65.8	38.3	64.6	24.6	5.7
2009	65.3	38.6	64.6	24.8	5.6
2010	64.4	39.0	64.3	24.8	5.7
2011	64.0	39.1	64.0	24.9	5.8
2012	63.8	39.1	64.1	25.5	5.9
2013	63.6	39.2	64.2	25.6	6.3
2014	63.3	39.0	64.2	25.3	6.3
2015	63.1	38.9	64.1	25.3	6.3
2016	63.1	38.9	64.3	25.5	6.5
2017	63.2	39.2	64.9	25.8	6.8
Share of Total Labor Force					
2008	100.0	17.7	13.9	3.2	0.7
2009	100.0	18.2	14.3	3.3	0.7
2010	100.0	19.2	15.1	3.5	0.7
2011	100.0	19.7	15.5	3.6	0.7
2012	100.0	20.1	15.6	3.9	0.7
2013	100.0	20.7	15.8	4.1	0.8
2014	100.0	21.0	16.0	4.2	0.8
2015	100.0	21.3	16.2	4.3	0.8
2016	100.0	21.7	16.4	4.5	0.8
2017	100.0	22.1	16.6	4.7	0.9

Notes: Labor force participation="in labor force," including those currently not at work or unemployed. Shares of "55 to 64," "65 to 74," and "75 and older" may not sum to the percentages in "55 and older" due to rounding.

Corresponding margins of error are presented in Appendix Table 1.

The increased participation of older people in America's workforce raises questions about this subpopulation's commuting patterns and how they differ from their younger counterparts. Do older workers, like the rest of the American workforce, mostly drive alone to work? Is the average commute time of older workers longer or shorter than that of younger workers?² What other means of transportation do older workers use, especially those with a disability? Among older workers, does commuting differ by socioeconomic-demographic characteristics such as race and ethnicity, or income? Research shows that commuting, especially having a long commute, is associated with stress and other negative subjective well-being outcomes (Crabtree, 2010; Stone and Schneider, 2016; Chatterjee et al., 2020). Answers to these questions will shed light on older workers' well-being. Understanding the needs and constraints of older workers also informs local transportation planning and policy decisions.

Work-related transportation makes up around one-third of weekday trips in the United States and roughly one-fifth of all trips taken (American Association of State Highway and Transportation Officials, 2015; McGuckin and Fucci, 2018). Recent surveys suggest that travel patterns are different among older people. Although the average number of trips taken by people declined overall between 2009 and 2017, the average number of trips was unchanged for people 65 years and older over the same period of time (McGuckin and Fucci, 2018). The increasing share of older workers in the workforce means that this subpopulation has a growing capacity to influence overall commuting trends, and is of ever greater interest to the transportation community.

This report covers work-related travel trends and patterns, with a focus on older workers. It presents an overview of commuting patterns of older workers and a comparison with those of younger workers, primarily using data from American Community Survey (ACS) 5-year estimates collected between 2013 and 2017.³ The report begins with a review of employment trends using 10 years of ACS 1-year data, while the larger ACS 5-year sample allows for analyses of specific population subgroups for the entire United

States as well as some smaller geographic subdivisions.^{4, 5}

The report begins with an examination of the age composition of the workforce and moves on to investigate age differences in commuting behaviors, including means of transportation to work and several measures of commuting burden for workers. The report also analyzes geographic variation in commuting behaviors by comparing patterns across community types.⁶ Next, the report considers commuting patterns among workers with a disability. Lastly, the report analyzes variation in commuting patterns by levels of earnings and by racial and ethnic groups, two important factors in labor force composition that change between age groups.

All comparative statements in this report have undergone statistical testing. In accordance with most Census Bureau data products, comparisons indicate differences statistically significant at the 90 percent level unless otherwise noted.

² In this report, "average travel time" and "mean travel time" are used interchangeably.

³ The U.S. Census Bureau reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release. CBDRB-FY20-POP001-0056.

⁴ Estimates for Puerto Rico are not included in this report.

⁵ See <www.census.gov/programs -survey/acs/guidance/estimates.html> for more detail on the differences between American Community Survey 1-year and 5-year estimates.

⁶ The community types in this analysis include principal cities of metropolitan (metro) areas, within metro areas outside of principal cities, and outside of metro areas. "Outside of metro areas" includes micropolitan and nonmetropolitan areas.

WORKFORCE COMPOSITION

Over the past decade, older workers have made up an increasingly large proportion of the overall workforce. According to ACS 1-year estimates, the share of workers aged 55 and older among the total labor force increased from 17.7 percent in 2008 to 22.1 percent in 2017 (Figure 1). This increase coincides with an aging population and rising percentages of the older population remaining in the labor force. Of the population aged 55 to 64, 61.3 percent were at work in 2017, up from 60.4 percent in 2008 (Appendix Table 1). Of the population aged 65 to 74, the percentage at work rose from 23.0 to 24.4 percent over the same time period, and from 5.3 to 6.3 percent for those aged 75 and older.

While 10-year trends convey broad changes in the age composition of the workforce, certain selected characteristics can be presented in more detail using ACS 5-year estimates collected from 2013 to 2017. During this survey period, a larger share of older men than older women were at work. For example, 65.1 percent of men aged 55 to 64 were at work during this period, over 9 percentage points higher than the 55.9 percent observed among women (Appendix Table 2). Among workers 65 and older, 20.4 percent of men were at work compared to 13.1 percent of women.

In addition to sex, other aspects of the workforce also changed with age, including the racial and ethnic composition. Non-Hispanic

U.S. Census Bureau

Figure 1.

Percentage Aged 55 and Older of Labor Force by Age: 2008 to 2017

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



White workers accounted for 61.6 percent of the workforce aged 25 to 54, but 74.0 percent of workers 55 to 64 and 79.4 percent of the workforce 65 and older (Appendix Table 7a).^{7,8} In the sense that they represent an increasingly large proportion of older workers, non-Hispanic White workers predominate the older workforce.

⁸ For the total population during the same period of 2013–2017, regardless of labor force participation status, the non-Hispanic White alone population accounted for 54.3 percent of those aged 16 to 24, 59.7 percent of those aged 25–54, 72.6 percent of those aged 55–64, and 77.7 percent of those aged 65 and older (U.S. Census Bureau, American Community Survey, 2013–2017).

Educational attainment is positively associated with older people's workforce participation (Appendix Table 2). Among people 55 to 64 years of age, 70.9 percent of those with a bachelor's degree or higher were at work during the 2013-2017 survey period, compared with 42.1 percent of people in the same age group without a high school degree. Among those 65 years and older, almost a quarter (24.1 percent) of those with a bachelor's degree or higher were still at work, compared to fewer than about 1 in 10 (8.5 percent) without a high school degree.

⁷ In this report, the race group of White alone, not Hispanic or Latino is referred to as non-Hispanic White; Black or African American alone, not Hispanic or Latino is referred to as non-Hispanic Black; Asian alone, not Hispanic or Latino is referred to as non-Hispanic Asian.

AGE AND COMMUTING

The ACS asks respondents several questions about work and work-related travel, including a question about how respondents get to work (Figure 2).⁹ People who use different means of transportation on different days of the week are asked to specify the one mode of transportation they used most often. People who use more than one mode of transportation to get to work each day are asked to report the one used for the longest distance during the work trip.¹⁰

The majority of U.S. workers drive to work alone, and survey data in recent years have suggested small but statistically detectable shifts in commuting behavior by age (McKenzie, 2015). During the 2013-2017 period, 76.4 percent of all workers drove to work alone (Table 2). Among the youngest group of workers (aged 16 to 24), 70.5 percent drove alone, compared with 76.9 percent of those aged 25 to 54, and 79.4 percent of workers 55 to 64 years of age.¹¹ Workers aged 65 and older (76.5 percent) were less likely to drive



number of riders, which determines whether they are treated as "drove alone" or "carpooled." For the purposes of this report, the category "public transportation" is used for people who report traveling by bus or trolley bus, streetcar or trolley car, subway or elevated, railroad, or ferryboat. The category "other means" includes those who report traveling by taxicab, motorcycle, or other method.

alone to work than workers aged 55 to 64, and workers 75 years and older even less so (73.4 percent). Patterns of vehicle access correspond to patterns of driving alone to work. Workers aged 75 and older had the highest rate of access to a single vehicle.^{12, 13}

During the 2013-2017 period, 9.2 percent of workers commuted to work by carpool, making it the second most common commuting mode. Carpooling rates generally declined with age (Table 2). Of workers aged 25 to 54, 9.3 percent commuted by carpool, compared with 7.0 percent of workers aged 55 to 64 and 6.1 percent of workers aged 65 to 74. Among workers 75 years and older, 6.9 percent traveled by carpool, a reversal of the downward trend among older ages (though not significantly different from the 7.0 percent of workers aged 55 to 64).

Public transit was the next most common mode, varying from 5.6 percent of workers aged 16 to 24 to 3.2 percent of those 75 years and older. Patterns for several less-common travel modes biking, walking, and a collection of other means of transportation—were less distinct. As shown

⁹ Commutes may involve multiple transportation modes, but ACS respondents are restricted to indicating the single mode used for the longest distance.

¹⁰ Some means of transportation are uncommonly reported. For the purposes of this report, several logically similar or less common categories have been combined. For example, bus or trolley bus, streetcar or trolley car, subway or elevated, railroad, and ferryboat responses in the ACS have been combined to form the group, "Public Transportation." Responses of taxicab, motorcycle, and other method have been combined to form the group "Other means."

¹¹ Due to sample size considerations, the remainder of this report's analysis will aggregate workers aged 65-74 and 75 and older into a single age group of 65 and older.

¹² Vehicle access is defined as the number of vehicles available and is measured for the household. Other measures in this report are measured for the individual.
¹³ Some workers report driving to work alone and living in households with no vehicle availability (McKenzie, 2015).

Table 2.

Selected Commuting Characteristics for Workers Aged 16 and Older by Sex and Age: 2013-2017

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

			Se	ex			Ag	e		
Characteristic	All v	workers							65	75
Characteristic	(num	nbers in			16 to	25 to	55 to	65 to	and	and
	thou	usands)	Men	Women	24	54	64	74	older	older
Total	148,400	100.0	53.0	47.0	13.1	65.1	16.6	4.4	5.3	0.8
Share by Means of Transportation										
Drove alone	113,500	76.4	76.4	76.5	70.5	76.9	79.4	77.1	76.5	73.4
Carpooled	13,590	9.2	9.3	9.0	12.3	9.3	7.0	6.1	6.2	6.9
Public transportation	7,608	5.1	4.8	5.4	5.6	5.4	4.2	3.7	3.7	3.2
Other means	1,822	1.2	1.5	1.0	1.6	1.2	1.1	1.1	1.2	1.4
Bicycle	872	0.6	0.8	0.3	1.0	0.6	0.4	0.3	0.3	0.2
Walked	4,049	2.7	2.8	2.7	6.5	2.2	2.0	2.4	2.5	3.1
Worked at home	7,027	4.7	4.5	5.0	2.5	4.5	6.0	9.2	9.6	11.8
Commuting Burden										
Mean travel time to work in minutes	141,400	26.4	27.8	24.7	21.8	27.3	27.0	25.1	24.7	23.0
"Peak" departure time	88,000	62.2	59.6	65.2	45.3	65.0	65.2	62.1	61.6	58.3
60 or more minutes travel time to work	12,580	8.9	10.3	7.3	5.8	9.5	9.2	8.0	7.8	6.6
Worked outside county of residence	41,010	27.6	30.0	24.9	21.3	29.1	28.2	23.6	22.9	19.2
Share by Vehicle Availability										
No vehicles available	6,418	4.4	4.2	4.5	5.2	4.5	3.4	3.4	3.7	5.0
1 vehicle available	30,680	20.9	18.7	23.3	17.3	21.2	20.3	25.6	26.9	34.2
2 or more vehicles available	109,900	74.8	77.0	72.2	77.6	74.3	76.3	71.0	69.4	60.8

Notes: Estimates express percentage of workers for all variables except mean travel time; mean travel time to work estimate represents minutes. Commuting burden refers to multiple measures of the effort and time spent getting to a place of work.

Peak departure time refers to departure for place of work from 6 to 8:59 a.m. Universe for vehicle availability is restricted to workers living in households.

Shares may not sum to 100.0 due to rounding.

Corresponding margins of error are presented in Appendix Table 3.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates.

in Figure 3, workers aged 55 to 64 reported using these means of transportation (bicycle, walk, and other means) less than any other age group. Table 2 presents these means of transportation in more detail. Rates of bicycling to work declined steadily with age, but workers 75 and older (3.1 percent) walked to work more than any other age group except for those aged 16 to 24.

A growing number of workers work from home in lieu of commuting to a different location (Mateyka, Rapino, and Landiva, 2012). During the 2013–2017 period, working from home was reported by 4.7 percent of all workers, and was more common among older workers (Table 2). Of workers aged 25 to 54, 4.5 percent reported working at home, compared with 6.0 percent of workers aged 55 to 64, 9.2 percent of workers aged 65 to 74, and 11.8 percent of workers 75 years and older. In contrast to the pattern for workers younger than 65, where carpooling rates exceed rates of working from home, working from home is more common than carpooling among workers aged 65 and older.

COMMUTING BURDEN

Several ACS questions help describe characteristics of a commute that could be considered burdensome.¹⁴ One of these measures is the amount of time it takes to get to work. The difference in average travel time to work between workers aged 25 to 54 (27.3 minutes) and aged 55 to 64 (27.0 minutes) was small, but average travel time declined

¹⁴ The ACS questions used to help describe commuting burden in this analysis include: (1) What time did this person usually leave home to go to work LAST WEEK, (2) How many minutes did it usually take this person to get from home to work LAST WEEK, and (3) At what location did this person work LAST WEEK?





to 25.1 minutes for workers aged 65 to 74, and to 23.0 minutes for workers 75 years and older (Table 2). Figure 4 presents this general pattern by age and sex. Workers 65 years and older reported shorter average travel times than those aged 25 to 54 or 55 to 64. Within every age group, women reported shorter average travel times than men.

In addition to average travel time to work, several other measures help describe commuting burden. These measures include departure to the workplace during peak hours (6 to 8:59 a.m.), a one-way travel time of 60 minutes or more, and commuting into a county other than the county of residence. Table 2 shows that 65.0 percent of workers aged 25 to 54 and 65.2 percent of workers aged

55 to 64 commuted during peak hours (not significantly different). A lower percentage of workers aged 65 and older traveled during peak hours (61.6 percent). The percentage of workers commuting 60 minutes or more declined from 9.5 percent of workers aged 25 to 54, to 9.2 percent of workers aged 55 to 64, and to 7.8 percent of workers 65 years and older. Reflecting the same pattern of declining commuter burden among older workers, a smaller share of workers aged 55 to 64 (28.2 percent) or 65 years and older (22.9 percent) than those aged 25 to 54 (29.1 percent) reported working outside their county of residence.

GEOGRAPHIC VARIATION

Transportation infrastructure, population density, and workplace proximity are some of the many geographic factors that could influence commuting patterns. For the purposes of this report, the community types representing certain aspects of this geographic variation include the principal cities of metropolitan (metro) areas, the remainder of metro areas outside of principal cities, and outside of metro areas.¹⁵

Driving alone was the most common mode of transportation for all age groups in every type of community, with the lowest rates of driving alone within the principal cities of metro areas (Appendix Table 4). Commuting by public transportation was more common in principal cities of metro areas than anywhere else. This report does not differentiate between the multiple forms of public transportation, but prior analysis has shown that commuting by subway or elevated rail captures high shares of commuters in only a few large metro areas (McKenzie, 2015). Within principal cities of metro areas, older workers were less likely to use public transportation than their younger counterparts (10.8 percent of workers aged 25 to 54 used public transportation, compared to 9.0 percent of workers aged 55 to 64 and 7.9 percent of those aged 65 and older).

Rates of working from home were highest among the oldest workers in every type of community, at 9.4 percent of workers aged 65 and older in principal cities of metro areas, 9.7 percent outside of principal cities in metro areas, and 9.7 percent outside of metro areas (Appendix Table 4). The youngest workers were more likely to walk to work than all older age groups in all community types, but the percentage of workers who reported bicycling or taking other means of transportation to work varied without a clear pattern by age.

Measures of commuting burden were generally higher for workers living in metro areas outside of principal cities (Appendix Table 4). Average travel time was longest in these types of communities for every age group, and was shortest in communities outside of metro areas. In each community type, average travel time was longest among workers aged 25 to 54, and then declined with age.

Differences in average travel time between workers aged 25 to 54 and those 65 years and older were less in principal cities of metro areas compared with metros outside of principal cities or outside of metro areas. In metro areas outside of principal cities, 10.4 percent of workers aged 25 to 54 spent 60 minutes or more on their daily commute, compared with 9.9 percent of workers aged 55 to 64 and 8.3 percent of workers aged 65 and older. In each of these three types of communities, workers aged 65 and older were less likely to work outside their county of residence than workers aged 25 to 54 or 55 to 64.

DISABILITY STATUS

Having one or more types of disabilities is a common feature of aging (He and Larsen, 2014). The ACS defines disability as a mental or physical impairment that substantially limits at least one major life activity, and measures this concept using a standardized set of six questions. These questions capture a respondent's serious difficulty with hearing, vision, concentration/memory, dressing/ bathing, doing errands alone, and walking/climbing stairs.¹⁶ This report considers commuting patterns among workers with any disability by age, and takes a closer look at ambulatory difficulties that might contribute to specific transportation challenges.

Among the population aged 16 and older, people with disabilities are typically less than half as likely to work as people without disabilities. For example, among the population aged 25 to 54 years of age, 36.0 percent of the population

¹⁵ Metropolitan statistical areas have at least one urbanized area of 50,000 or more inhabitants. Micropolitan statistical areas have at least one urban cluster of at least 10,000 but less than 50,000 population. The largest city in each metropolitan or micropolitan statistical area is designated a "principal city." "Outside of metro areas" includes micropolitan and nonmetropolitan areas. For more information about metropolitan and micropolitan statistical areas, see <www.census.gov/programs-surveys/ metro-micro/about.html>.

¹⁶ For this report, we refer to difficulty walking/climbing stairs as ambulatory difficulty.

with a disability reported being at work, compared with 79.5 percent of the population without a disability (Table 3). Workers aged 65 and older are more than three times as likely as workers aged 25 to 54 to report some type of disability (16.5 percent relative to 4.3 percent; Appendix Table 5). Figure 5 displays the percentagepoint difference between workers with and without a disability using each travel mode, by age group.¹⁷ Workers with disabilities were less likely than workers without disabilities to drive to work alone, but the difference between the two groups was smaller among older workers. The rate of workers aged 16 to 24 with disabilities driving alone was 12.7 percentage points lower than that of their counterparts without disabilities.

Table 3.

Percentage at Work for Population Aged 16 and Older by Disability Status: 2013-2017

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

Characteristic				65 and
	16 to 24	25 to 54	55 to 64	older
Percentage at work	49.2	75.6	60.3	16.3
Percentage at Work by Disability Status				
No disability	50.5	79.5	68.2	21.7
With a disability	29.3	36.0	26.8	7.3
With an ambulatory difficulty	21.2	24.2	18.9	5.0
Share of Workers by Disability Status				
No disability	96.4	95.7	91.5	83.5
With a disability	3.6	4.3	8.5	16.5
With an ambulatory difficulty	0.4	1.3	3.8	7.5

Notes: At work=Employed, at work or Armed Forces, at work. "With a disability" includes any difficulty in hearing, vision, cognition, walking/climbing stairs, self-care, or independent living. "With an ambulatory disability" is a subset of the population "with a disability."

Shares may not sum to 100.0 due to rounding.

Corresponding margins of error are presented in Appendix Table 2.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates.

Figure 5. Percentage-Point Differences in Means of Transportation Between Workers With and Without A Disability by Age: 2013–2017

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



¹⁷ Appendix Table 5 contains the detailed statistics underlying Figure 5.

The difference between workers aged 65 and older was much smaller, at just 3.7 percentage points.

The decreased rate of driving alone was accompanied by increased rates of carpooling, public transportation, and other means of transportation (including taxicab and motorcycle, as well as other assorted methods not captured by the survey instrument). Among workers older than 65, those with any disability—and those with an ambulatory disability in particular-were more likely to work from home than workers without a disability (10.2 percent, 10.9 percent, and 9.5 percent, respectively; Appendix Table 5).

Commuting during peak hours was less common among workers with a disability. Workers aged 25 to 54 without disabilities were nearly 3 percentage points more likely to work outside their county of residence than workers the same age with a disability (29.3 percent and 26.4 percent, respectively; Appendix Table 5). The difference declines to around 2 percentage points among workers aged 55 to 64 (28.4 and 26.5 percent¹⁸) and 1.5 percentage points among workers aged 65 and older (23.2 and 21.7 percent).

EARNINGS

The observed differences in commuting behaviors between age groups was also considered in the context of the changing socioeconomic composition of the workforce, specifically along levels of earnings. During the 2013–2017 survey period, the distribution of earnings was notably different between age groups.¹⁹ As displayed in Appendix Table 6, over 25 percent of workers aged 55 to 64 earned \$75,000 or more annually, a higher proportion than in any other age group. Conversely, the proportion of workers earning less than \$25,000 increases from 25.2 percent of workers aged 55 to 64 to 45.1 percent of workers 65 years and older. Only workers aged 16 to 24, of whom nearly 80 percent earned less than \$25,000 annually, were more concentrated in this group of lowest earners. This age and earnings profile is comparable to that of other data sources, such as the Current Population Survey

(U.S. Bureau of Labor Statistics, 2018).

Among workers younger than 65 years old, driving alone was generally more common among those closer to the middle of the earnings distribution; about 80 percent of workers aged 16 to 64 earning \$25,000 to \$49,999 and \$50,000 to \$74,999 drove alone (Table 4). Among workers earning less than \$25,000, workers aged 65 and older (75.2 percent) were more likely to drive alone to work than all younger age groups. Use of public transportation was most common among workers aged 16 to 24 years of age earning \$75,000 or more annually, and least common among workers aged 65 and older earning less than \$25,000. Carpooling was less common among older workers regardless of earnings, and for all workers aged

Table 4.

Selected Means of Transportation for Workers Aged 16 and Older by Age and Earnings: 2013–2017

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

Means of transportation and earnings	16 to 24	25 to 54	55 to 64	65 and older
Drove Alone				
Less than \$25,000	68.9	70.4	73.3	75.2
\$25,000-\$49,999	77.7	80.0	81.8	78.2
\$50,000-\$74,999	75.8	81.1	83.5	78.6
\$75,000 or more	65.2	76.5	79.3	76.2
Carpooled				
Less than \$25,000	12.8	12 5	9.0	69
\$25,000-\$49,999	10.5	9.5	7.4	6.5
\$50.000-\$74.999	8.0	7.8	6.1	5.5
\$75,000 or more	9.5	6.2	5.3	4.9
Worked at Home				
Less than \$25,000	2.6	4.9	7.8	10.4
\$25,000-\$49,999	1.9	3.2	4.4	8.2
\$50,000-\$74,999	2.2	3.8	4.6	8.6
\$75,000 or more	3.9	6.6	7.4	10.4
Public Transportation				
Less than \$25,000	5.6	6.2	4.9	3.1
\$25,000-\$49,999	5.1	4.1	3.5	3.7
\$50,000-\$74,999	8.7	4.6	3.3	4.0
\$75,000 or more	12.5	7.1	4.9	4.7

Note: Corresponding margins of error are presented in Appendix Table 6.

¹⁸ The 26.5 percent of workers aged 55 to 64 with disabilities who report commuting during peak hours is not statistically different from the 26.4 percent of workers aged 25 to 54 with disabilities who report commuting during peak hours.

¹⁹ The ACS asks several questions about earnings and income. This report compares CPI-adjusted personal earnings, which are the sum of wage and salary income and self-employment income, and are often a large part of overall income.

25 and older, the likelihood of commuting by carpool was inversely related to earnings. Though the overall rates of working from home increased uniformly with age, the lowest or highest earnings groups were more likely than the middle two earnings groups to work from home regardless of age.

Average travel time to work was highest for workers aged 25 to 54 earning \$75,000 or more (31.8 minutes), and was shorter among older workers. On average, workers of the same age group earning less money reported shorter average travel times (Appendix Table 6). With some exceptions among workers aged 16 to 24, the highestearning workers of each age group reported traveling at peak times, commuting 60 minutes or more, and living and working in different counties at higher proportions than workers in lower earnings categories, but differences by earnings were generally less among those aged 65 and older.

RACE AND HISPANIC ORIGIN

As noted in the introduction, the older workforce is disproportionately composed of non-Hispanic White workers. Non-Hispanic White workers comprise 61.6 percent of workers aged 25 to 54, compared to 74.0 percent of workers aged 55 to 64 and 79.4 percent of workers aged 65 and older (Appendix Table 7a). Commuting patterns vary by race and ethnicity, and the variation by age is likely to play a role in observed differences in commuting patterns. The percentage of workers driving alone differed significantly by race and ethnicity, notably between workers who are non-Hispanic White (79.7 percent) and workers who are non-Hispanic Black (72.7 percent) or

non-Hispanic Asian (66.4 percent; Table 5). Non-Hispanic White workers were the least likely of any racial and ethnic group to travel by carpool (7.5 percent), and workers of Hispanic or Latino origin (of any race) were the most likely to do so (14.1 percent). More than 10 percent of non-Hispanic Black and non-Hispanic Asian workers commuted via public transportation, compared with 3.1 percent of non-Hispanic White workers. Working at home was most common among non-Hispanic White workers (5.5 percent) and least common among non-Hispanic Black workers (2.9 percent).

Rates of working from home increased with age, but the extent of change across age groups was not uniform by race and ethnicity (Appendix Table 7a). The difference between non-Hispanic White workers and non-Hispanic Black workers is notable, with the former working at home at higher percentages within every age group. The share of the non-Hispanic White population working from home increased from 5.2 percent of workers aged 25 to 54 to 10.6 percent of workers aged 65 and older, while non-Hispanic Black workers demonstrated a smaller increase across the same two age groups, rising from 2.9 percent to 4.6 percent.

Commuting burden was also uneven across race and ethnicity (Appendix Table 7a). Non-Hispanic White workers reported the shortest average travel time and the lowest percentages of one-way travel times of 60 minutes or more. For each race and ethnicity group. average travel time was lower among workers aged 65 and older than among workers aged 25 to 54 or 55 to 64. Within every age group, Hispanic or Latino workers (of any race) were the least likely to work outside their county of residence. Among the population aged 55 years and older, non-Hispanic Asian workers were the most likely to experience a commute time of 60 minutes or more.

Table 5.

Means of Transportation for Workers Aged 16 and Older by Race and Hispanic or Latino Origin: 2013–2017

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

		Not Hisp	anic or Latir	io origin	Hispanic
			Black or		or Latino
Means of transportation			African		origin
		White	American	Asian	(of any
	Total	alone	alone	alone	race)
Total	100.0	64.2	11.1	5.6	16.5
Share by Means of Transportation					
Drove alone	76.4	79.7	72.7	66.4	70.3
Carpooled	9.2	7.5	9.3	12.7	14.1
Public transportation	5.1	3.1	10.5	10.9	7.2
Other means	1.2	1.0	1.5	1.2	1.7
Bicycled	0.6	0.6	0.3	0.6	0.6
Walked	2.7	2.5	2.7	3.9	3.0
Worked at home	4.7	5.5	2.9	4.3	3.1

Notes: American Indian or Alaska Native alone, not Hispanic or Latino; Native Hawaiian or Other Pacific Islander alone, not Hispanic or Latino; Some other race, not Hispanic or Latino; or Two or More Races, not Hispanic or Latino are not included in this table due to their small sample size.

Corresponding margins of error are presented in Appendix Table 7b.

Shares may not sum to 100.0 due to rounding. Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates.

SUMMARY AND DISCUSSION

In 2017, more than 20 percent of the U.S. workforce were aged 55 and older. As Baby Boomers continue to age into this group, the relative prominence of older workers in the workforce at large will continue to grow. The different transportation needs of older workers underline the importance of understanding the commuting patterns of this group, as they are increasingly likely to influence broader commuting and transportation trends.

This report characterized the way older commuters get to work and compared them with younger workers. During 2013-2017, driving alone was the most common mode of commuting, capturing over 75 percent of all workers. Workers aged 55 to 64 drove to work alone at higher rates than workers aged 25 to 54, but the proportion driving alone declined among workers aged 75 and older. This reflects the impact of aging on commuting. Working at home was more common among older than younger workers. Nearly 12 percent of workers aged 75 and older reported working from home, compared with 4.5 percent of workers aged 25 to 54. Being able to work from home would be especially beneficial for older workers as this commute mode may enable them to be better positioned to continue working later in life.

This study found that in general, commuting burden is less for older workers than for their younger counterparts. Workers aged 65 and older reported shorter average travel times to work than workers aged 25 to 54 or 55 to 64. Other measures of commuting burden, including travel during peak hours, travel time of 60 minutes or more, and working outside one's county of residence, were also generally lower among workers aged 65 and older. Further investigation is needed to determine whether this is a selection effect, e.g., if older workers tend to remain in or find jobs near home with shorter travel times.

Community type is an important predictor of commuting patterns. Within each age group, workers in metropolitan areas outside of principal cities reported the longest average travel time to work, and workers living outside of metropolitan areas reported the shortest. Within the principal cities of metropolitan areas, however, older workers were significantly less likely than younger workers to travel to work using public transportation.

Older workers were more likely than younger workers to report disabilities, and disability status appears to be an important predictor of commuting behavior. Workers with disabilities were less likely than workers without disabilities to drive alone and more likely to carpool, take public transportation, or walk. As functional limitations rise with age, older workers face additional challenges in commuting compared with younger workers. There remains much to learn about the impact of disability on commuting experiences of older workers, including more specific limitations than the generalized definition of disability included in this report.

Commuting patterns varied by earnings more for younger workers and less for older workers.

The most pronounced relationships for younger workers such as higher rates of carpooling among lower-earning workers are somewhat muted among older workers. Younger, higher-earning workers were more likely to report long travel times and travel during peak times, but earnings were less associated with commuting behaviors among older workers, despite the higher share of lowerearning workers in the workforce aged 65 and over. Overall commuting trends may suggest that this larger share of lower-earning workers would lead to a lower level of commuters driving alone to work; however, the disproportionately high share of non-Hispanic White workers in the older workforce who tend to drive alone may help explain fairly high rates of workers aged 65 and older driving to work alone.

Other notable differences in commuting patterns were also evident along race and ethnicity. A more comprehensive analysis might better isolate the effect of age from these and other prominent demographic and socioeconomic patterns. The changing nature of work among older workers, such as the reduction of working hours or transition into more accommodating industries and occupations, may also play a role, but are not considered in this report.

Travel surveys have a limited capacity to capture transportation trends, and the ACS is no exception. The introduction and expansion of new travel options (such as ride-hailing, electric scooters, and short-term private car rental) are not as straightforward to capture in the existing questionnaire, although recent modifications aim to mitigate this potential shortcoming.²⁰ Many commuters may utilize multiple transportation modes, but ACS respondents are restricted to indicating the single mode used for the longest distance. The ACS reference frame may also present some challenges to interpretation, with respondents reporting on their travel in the last week, rather than general patterns. Although work-related trips play an important role in determining peak travel demand across transportation systems, work-related trips make up less than 20 percent of all trips taken (American Association of State Highway and Transportation Officials, 2015). As workforce composition and travel patterns continue to change, further research is needed to investigate how population aging continues to influence U.S. workers' commuting patterns, transportation planning, and policymaking.

SOURCE OF THE ESTIMATES

The American Community Survey (ACS) is a nationwide survey designed to provide communities with reliable and timely demographic, social, economic, and housing data for congressional districts, counties, places, and other localities every year. It has an annual sample size of about 3.5 million addresses across the United States and Puerto Rico and includes both housing units and group quarters. The ACS is conducted in every county throughout the nation, and every municipio in Puerto Rico, where it is called the Puerto Rico Community Survey. Beginning in 2006, ACS data for 2005 were released for geographic areas with populations of 65,000 and greater. For information on the ACS sample design and other topics, visit <www.census.gov/acs/www>.

ACCURACY OF THE ESTIMATES

The estimates presented in this report are primarily based on the ACS sample interviewed during 2013-2017. The report also includes single-year estimates from 2008 to 2017. The estimates based on these samples approximate the actual values and represent the entire U.S. resident household and group quarters populations. Sampling error is the difference between an estimate based on a sample and the corresponding value that would be obtained if the estimate were based on the entire population

(as from a census). Measures of the sampling error are provided in the form of margins of error for all estimates included in this report. All comparative statements in this report have undergone statistical testing, and comparisons are significant at the 90 percent level, unless otherwise noted. In addition to sampling error, nonsampling error may be introduced during any of the operations used to collect and process survey data such as editing, reviewing, or keying data from questionnaires. For more information on sampling and estimation methods, confidentiality protection, and sampling and nonsampling errors, please see the 2017 ACS Accuracy of the Data document located at <https://www2.census.gov /programs-surveys/acs/tech docs/accuracy/ACS Accuracy _of_Data_2017.pdf>.

For more reports related to the commuting patterns of U.S. workers, go to the U.S. Census Bureau's Journey to Work and Migration Statistics Web site at <www.census.gov/topics /employment/commuting.html>, or contact the Journey to Work and Migration Statistics Branch at 301-763-2454.

²⁰ In 2019, the ACS modified public transportation categories to better reflect contemporary modes, and updated terminology from "Worked at home" to "Worked from home." At time of writing, content testing is underway for adding terminology on ride-hailing and electric cars.

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Appendix Table 1. Selected Characteristics of Labor Force Aged 16 and Older by Age: 2008 to 2017

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

	16 and	older	16 tc	24	25 to	54	55 to	64	65 to	o 74	75 and	older
		Mar-		Mar-		Mar-		Mar-		Mar-		Mar-
Characteristic		gin of		gin of		gin of		gin of		gin of		gin of
	Esti-	error	Esti-	error	Esti-	error	Esti-	error	Esti-	error	Esti-	error
	mate	(±)	mate	(±)	mate	(±)	mate	(±)	mate	(±)	mate	(±)
Percentage In Labor Force												
2008	65.8	0.1	61.4	0.2	82.8	0.1	64.6	0.1	24.6	0.2	5.7	0.1
2009	65.3	<0.1	59.5	0.1	82.6	0.1	64.6	0.1	24.8	0.2	5.6	0.1
2010	64.4	0.1	57.3	0.2	82.0	0.1	64.3	0.1	24.8	0.1	5.7	0.1
2011	64.0	<0.1	57.2	0.2	81.6	0.1	64.0	0.1	24.9	0.2	5.8	0.1
2012	63.8	<0.1	57.8	0.1	81.6	<0.1	64.1	0.1	25.5	0.1	5.9	0.1
2013	63.6	<0.1	58.2	0.1	81.4	0.1	64.2	0.1	25.6	0.1	6.3	0.1
2014	63.3	<0.1	58.4	0.1	81.3	0.1	64.2	0.1	25.3	0.1	6.3	0.1
2015	63.1	<0.1	58.4	0.1	81.4	0.1	64.1	0.1	25.3	0.1	6.3	0.1
2016	63.1	<0.1	58.9	0.1	81.6	0.1	64.3	0.1	25.5	0.1	6.5	0.1
2017	63.2	<0.1	58.7	0.1	82.0	0.1	64.9	0.1	25.8	0.1	6.8	0.1
Share of Total Labor Force												
2008	100.0	Х	15.1	<0.1	67.2	< 0.1	13.9	<0.1	3.2	<0.1	0.7	<0.1
2009	100.0	Х	14.8	<0.1	67.0	< 0.1	14.3	<0.1	3.3	<0.1	0.7	<0.1
2010	100.0	Х	14.4	<0.1	66.4	< 0.1	15.1	<0.1	3.5	<0.1	0.7	<0.1
2011	100.0	Х	14.4	<0.1	65.8	< 0.1	15.5	<0.1	3.6	<0.1	0.7	<0.1
2012	100.0	X	14.5	<0.1	65.3	<0.1	15.6	<0.1	3.9	<0.1	0.7	<0.1
2013	100.0	Х	14.6	<0.1	64.8	< 0.1	15.8	<0.1	4.1	<0.1	0.8	<0.1
2014	100.0	Х	14.5	<0.1	64.5	< 0.1	16.0	<0.1	4.2	<0.1	0.8	<0.1
2015	100.0	X	14.4	<0.1	64.3	<0.1	16.2	<0.1	4.3	<0.1	0.8	<0.1
2016	100.0	Х	14.3	<0.1	64.1	<0.1	16.4	<0.1	4.5	<0.1	0.8	<0.1
2017	100.0	Х	14.0	<0.1	63.9	<0.1	16.6	<0.1	4.7	<0.1	0.9	<0.1
Percentage at Work												
2008	60.2	0.1	51.6	0.2	76.7	0.1	60.4	0.1	23.0	0.1	5.3	0.1
2009	57.5	0.1	47.0	0.2	73.8	0.1	58.5	0.1	22.5	0.1	5.1	0.1
2010	56.2	0.1	44.6	0.2	72.6	0.1	57.7	0.1	22.2	0.1	5.1	0.1
2011	56.2	0.1	44.7	0.2	72.8	0.1	57.8	0.1	22.3	0.1	5.2	0.1
2012	56.7	<0.1	45.9	0.1	73.5	0.1	58.4	0.1	23.2	0.1	5.4	0.1
2013	57.0	<0.1	46.9	0.1	74.0	0.1	59.1	0.1	23.6	0.1	5.7	0.1
2014	57.5	<0.1	48.3	0.1	74.8	0.1	59.7	0.1	23.6	0.1	5.8	0.1
2015	57.9	<0.1	49.5	0.1	75.4	0.1	60.1	0.1	23.7	0.1	5.9	0.1
2016	58.3	0.1	50.4	0.1	76.1	0.1	60.5	0.1	24.1	0.1	6.1	0.1
2017	58.6	0.1	50.7	0.1	76.7	0.1	61.3	0.1	24.4	0.1	6.3	0.1

X Not applicable.

Note: Labor force participation=in labor force, including those currently not at work or unemployed. At work=Employed, at work or Armed Forces, at work.

Shares may not sum to 100.0 due to rounding.

Appendix Table 2.

Total Population (In Thousands) and Percentage at Work for Population Aged 16 and Older by Age and Selected Characteristics: . 2013-2017

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(For information on confidentiality pr	otection, s		d erroi, i	Innsam		, and de		, see <v< th=""><th>vww.ceusr</th><th>Is.gov/a</th><th>(<th></th><th></th><th>-</th><th></th><th></th></th></v<>	vww.ceusr	Is.gov/a	(<th></th> <th></th> <th>-</th> <th></th> <th></th>			-		
		16 to .	24			25 to !	40			55 to (4			55 and o	lder	
		Mar-		Mar-		Mar-		Mar-		Mar-		Mar-		Mar-		Mar-
Characteristic	Total	gin of		gin of	Total	gin of		gin of	Total	gin of		gin of	Total	gin of		gin of
	popula-	error	Per-	error	popula-	error	Per-	error	popula-	error	Per-	error	popula-	error	Per-	error
	tion	(=)	cent	(†)	tion	(†)	cent	(=)	tion	(1)	cent	(†)	tion	(+)	cent	(=)
Total	39,530	15	49.2	0.1	127,800	11	75.6	0.1	40,750	IJ	60.3	0.1	47,730	IJ	16.3	<0.1
Sex Men. Women	20,270	10	48.9 49.6	0.1	63,740 64 050	00 LC	81.0	0.1	19,640	MM	65.1 65.1	0.1	21,060 26 680	Μĸ	20.4	0.1
	2,2,0	1	2		000°f)	101		201,1-0)	2	1	2000)	1	
Race and Hispanic or Latino Origin White alone, not Hispanic or Latino	21,480	Ø	53.3	0.1	76,270	Q	78.0	0.1	29,190	N	62.3	0.1	37,100	0	16.7	<0.1
Black or African American alone, not Hispanic or Latino	5,709	11	41.5	0.2	16,180	10	68.6	0.1	4,575	М	51.2	0.2	4,192	М	14.6	0.1
Asian alone, not Hispanic or Latino	2,044	7	37.1	0.2	8,036	00	75.8	0.1	1,902	М	62.4	0.3	1,982	М	16.4	0.2
Hispanic or Latino origin (of any race)	8,558	œ	48.0	0.1	23,650	4	73.3	0.1	4,267	N	57.6	0.2	3,755	N	14.9	0.1
Education Less than high school graduate	12,210	23	24.0	0.1	14,510	82	56.6	0.1	4,722	26	42.1	0.2	8,207	28	8.5	0.1
High school graduate (includes equivalency) or some college or associate degree	24,060 3,259	23	58.4 75.7	0.1	70,710 42,580	160 242	73.7 85.2	0.1 0.1	24,080 11,940	28 48	58.7 70.9	0.1	27,160 12,370	19 28	15.2 24.1	<0.1 0.1
Disability Status No disability	37,100	20	50.5	0.1	116,400	42	79.5	0.1	32,970	25	68.2	0.1	30,030	29	21.7	<0.1
With any disability	2,422 372	12 4	29.3 21.2	0.2 0.6	11,440 5,085	34 30	36.0 24.2	0.1 0.1	7,778 4,936	24 20	26.8 18.9	0.1 0.1	17,710 11,590	26	7.3 5.0	<0.1 <0.1 <0.1
Geography Metropolitan area, principal city	14,460	19	48.5	0.1	43,960	17	75.3	0.1	11,840	14	59.1	0.1	13,430	12	16.7	0.1
city	19,590 5,476	20	50.0 48.8	0.1 0.2	67,140 16,680	18	76.9 70.9	0.1 0.1	22,420 6,492	13	62.3 55.7	0.1	25,980 8,330	12	16.7 14.7	<0.1 0.1
Notes: At work=Employed, at work or	Armed For	ces, at w	ork. "Wit	h a disal	oility" inclu	des any o	difficulty	in hearin	ig, vision, co	ognition,	walking	self-car	e, or indep	endent liv	/ing. "Wi	th an

ambulatory disability" is a subset of the population "with a disability." American Indian or Alaska Native alone, not Hispanic or Latino; Native Hawaiian or Other Pacific Islander alone, not Hispanic or Latino; Some other race, not Hispanic or Latino; or Two

or More Races, not Hispanic or Latino are not included in this table due to their small sample size. Percent columns present the percentage at work of each population subgroup and do not sum to 100. Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates.

Appendix Table 3. Margins of Error of Commuting Characteristics for Workers Aged 16 and Older by Sex and Age: 2013–2017

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

	All w	orkers	Se	ex			Ag	le		
Characteristic	(numl	bers in			16 to	25 to	55 to	65 to	65 and	75 and
	thou	sands)	Men	Women	24	54	64	74	older	older
Total	153	0.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Share by Means of Transportation										
Drove alone	115	<0.1	< 0.1	<0.1	0.1	<0.1	0.1	0.1	0.1	0.3
Carpooled	70	<0.1	< 0.1	0.1	0.1	<0.1	<0.1	0.1	0.1	0.1
Public transportation	20	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Other means	11	<0.1	<0.1	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Bicycle	7	<0.1	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1
Walked	20	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.1	< 0.1	< 0.1	0.1
Worked at home	20	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.2
Commuting Burden										
Mean travel time to work in minutes	164	<0.1	< 0.1	< 0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1
"Peak" departure time	175	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
60 or more minutes travel time to work .	37	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	0.1	0.1	0.1
Worked outside county of residence	85	<0.1	<0.1	<0.1	0.1	<0.1	0.1	0.1	0.1	0.2
Share by Vehicle Availability										
No vehicles available	22	<0.1	< 0.1	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
1 vehicle available	77	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3
2 or more vehicles available	222	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3

Notes: Vehicle availability is collected at the household level. All other variables are collected at the individual level.

Mean travel time to work estimate represents minutes.

Commuting burden refers to multiple measures of the effort and time spent getting to a place of work.

Peak departure time refers to departure for place of work from 6 to 8:59 a.m.

Universe for vehicle availability is restricted to workers living in households.

Appendix Table 4. Commuting Characteristics for Workers Aged 16 and Older by Age and Metropolitan Area/Principal City: 2013-2017

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

	Total (ir	n thou-				Ag	ge			
	sano	ds)	1	6 to 24	2	5 to 54	5	5 to 64	65 ar	nd older
Characteristic		Margin		Margin		Margin		Margin		Margin
		of		of		of		of		of
	Workors	error	Porcont	error	Porcont	error	Porcont	error	Porcont	error
	VIOIKEIS		Fercent	(-)	Fercent	(-)	Fercent	(-)	Fercent	
METROPOLITAN AREA, PRINCIPAL CITY										
Total	49,340	4/	36.0	0.1	54.5	<0.1	28.5	0.1	28.8	0.1
Share by Means of Transportation										
Drove alone	34,050	36	62.4	0.1	69.5	0.1	72.7	0.1	70.8	0.2
Carpooled	4,568	29	10.8	0.1	9.5		7.4	0.1	0.5	0.1
Other means	704	7	1.7	<0.1	1.4	<0.1	1.3	<0.1	1.4	0.1
Bicycle	545	5	1.5	< 0.1	1.1	<0.1	0.7	< 0.1	0.5	< 0.1
Walked	2,094	13	9.1	0.1	3.5	<0.1	3.0	<0.1	3.5	0.1
Worked at home	2,245	12	2.7	<0.1	4.3	<0.1	5.9	0.1	9.4	0.1
Commuting Burden										
Mean travel time to work in minutes	47,100	52	21.8	0.1	26.3	<0.1	26.1	0.1	24.7	0.1
"Peak" departure time	28,830	56	45.0	0.1	64.1	0.1	64.5	0.1	60.5	0.2
60 or more minutes travel time to work	3,936	16	6.2		8.8	<0.1	8./	0.1	16.1	0.1
worked outside county of residence	9,305	23	14.5	0.1	20.2	0.1	19.0	0.1	10.1	0.2
METROPOLITAN AREA, OUTSIDE PRINCIPAL CITY										
Total	79,760	87	50.3	0.1	53.5	<0.1	56.8	<0.1	55.5	0.1
Share by Means of Transportation										
Drove alone	63,850	69	75.1	0.1	80.6	<0.1	81.8	0.1	78.9	0.1
Carpooled	7,078	39	12.4	0.1	9.0	0.1	6.8	<0.1	6.1	0.1
Public transportation	2,363	13	3.2	< 0.1	3.0	<0.1	2.7	<0.1	2.3	< 0.1
Other means	887	8	1.6	<0.1		<0.1	1.0	<0.1		<0.1
Walked	1 374	11	0.7 4 7		0.5	<0.1	0.2	<0.1	1.8	<0.1
Worked at home	3.944	15	2.3	<0.1	4.7	<0.1	6.2	0.1	9.7	0.1
Commuting Burden			_							
Mean travel time to work in minutes	75.810	92	22.5	0.1	28.9	<0.1	28.5	<0.1	26.1	0.1
"Peak" departure time	47,870	97	45.6	0.1	66	0.1	65.7	0.1	61.7	0.1
60 or more minutes travel time to work	7,320	27	5.9	0.1	10.4	<0.1	9.9	0.1	8.3	0.1
Worked outside county of residence	26,060	56	25.2	0.1	34.5	0.1	32.9	0.1	27.1	0.1
OUTSIDE METROPOLITAN AREA										
Total	19,330	36	13.7	<0.1	12.2	<0.1	14.7	<0.1	15.7	0.1
Share by Means of Transportation										
Drove alone	15,560	33	75.0	0.2	81.2	0.1	83.0	0.1	78.6	0.2
Carpooled	1,943	12	13.0	0.2	10.7	0.1	7.1	0.1	6.4	0.1
Public transportation	105	3	0.8	0.1	0.5	<0.1	0.5	<0.1	0.5	< 0.1
Biovelo	231		1.4		1.2	<0.1				0.L
Walked	581	5	6.4		23	<0.1	25	<0.1	33	0.1
Worked at home	839	7	2.8	0.1	3.8	<0.1	5.5	0.1	9.7	0.2
Commuting Burden										
Mean travel time to work in minutes	18,490	38	19.0	0.1	23.2	0.1	22.9	0.1	20.1	0.1
"Peak" departure time	11,290	39	44.6	0.2	63.5	0.1	64.8	0.2	63.0	0.3
60 or more minutes travel time to work \ldots	1,323	9	4.8	0.1	7.7	0.1	7.5	0.1	5.8	0.1
Worked outside county of residence	5,570	17	24.6	0.2	30.8	0.1	28.2	0.1	20.9	0.2

Notes: Mean travel time to work estimate represents minutes.

Commuting burden refers to multiple measures of the effort and time spent getting to a place of work.

Peak departure time refers to departure for place of work from 6 to 8:59 a.m. Shares may not sum to 100.0 due to rounding.

Appendix Table 5. Commuting Characteristics for Workers Aged 16 and Older by Age and Disability Status: 2013-2017

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

	Tot	al				Ag	ge			
	(in thou	sands)	16 to	o 24	25 to	o 54	55 to	o 64	65 and	l older
Characteristic		Margin		Margin		Margin		Margin		Margin
		of		of		of		of		of
	Workers	error	Percent	error	Percent	error	Percent	error	Parcent	error
	WORKERS	(-)		(±)		(-)	rereent	(=)	rereent	(-)
Total	140 200	145	96.4	-01	05.7	-01	01 5	-01	97 5	0.1
	140,200	145	50.4	-0.1	33.7	-0.1	51.5	-0.1	05.5	0.1
Share by Means of Transportation	107 700	108	71.0	0.1	772	<01	70.7	0.1	771	0.1
Carpooled.	12.630	66	12.0	0.1	9.1	<0.1	6.8	<0.1	5.9	0.1
Public transportation	7,147	19	5.6	< 0.1	5.3	<0.1	4.1	< 0.1	3.7	<0.1
Other means	1,651	10	1.5	<0.1	1.1	<0.1	1.0	<0.1	1.1	<0.1
Bicycle	821	6	1.0	< 0.1	0.6	< 0.1	0.4	<0.1	0.3	< 0.1
Walked	3,//1 6 5 6 7	19	6.4	<0.1	2.1	<0.1	1.9	<0.1	2.5	<0.1
	0,505	20	2.5	V0.1	4.5	\U.1	0.0	10.1	5.5	0.1
Commuting Burden	133 700	155	21.8	<01	27.3	<01	27.0	<01	2/1.8	01
"Peak" departure time	83.580	166	45.4	0.1	65.3	0.1	65.7	0.1	62.1	0.1
60 or more minutes travel time to										_
work	11,860	36	5.8	<0.1	9.5	<0.1	9.2	<0.1	7.7	0.1
Worked outside county of residence	38,960	81	21.3	0.1	29.3	<0.1	28.4	0.1	23.2	0.1
WITH A DISABILITY										
Total	8,191	22	3.6	<0.1	4.3	<0.1	8.5	<0.1	16.5	0.1
Share by Means of Transportation										
Drove alone	5,806	18	58.3	0.4	69.9	0.2	75.5	0.2	73.4	0.2
Carpooled	960	8	18.3	0.4	13.1	0.1	9.0	0.1	8.1	0.2
Other means	461	5	7.6	0.2	0.5		4.9	0.1	3.6	0.1
Bicvcle	51	2	1.2	0.1	0.7	<0.1	0.4	<0.1	0.3	< 0.1
Walked	279	5	8.6	0.2	3.1	0.1	2.5	0.1	2.8	0.1
Worked at home	464	4	2.9	0.1	4.6	0.1	5.9	0.1	10.2	0.2
Commuting Burden										
Mean travel time to work in minutes	7,727	22	22.2	0.2	27.3	0.1	27.1	0.1	24.6	0.2
"Peak" departure time	4,420	16	41.7	0.4	58.3	0.2	59.5	0.2	58.8	0.3
work	719	7	6.6	0.2	10.1	01	96	0.1	78	0.2
Worked outside county of residence.	2,054	11	19.2	0.4	26.4	0.1	26.5	0.2	21.7	0.2
WITH AN AMBULATORY DIFFICULTY										
Total	2.826	12	0.4	<0.1	1.3	<0.1	3.8	<0.1	7.5	0.1
Share by Means of Transportation						_		_		
Drove alone	2.028	10	59.2	1.3	70.3	0.3	74.8	0.3	71.6	0.4
Carpooled	305	4	16.9	1.1	12.7	0.2	9.2	0.2	8.5	0.3
Public transportation	154	3	8.6	0.8	6.0	0.2	5.2	0.2	4.2	0.2
Other means	56	2	3.3	0.5	2.2	0.1	1.6	0.1	1.8	0.1
Walked	11		0.7	0.3	0.5		0.4		0.2	
Worked at home	194	3	3.6	0.8	5.5	0.1	6.5	0.1	10.9	0.1
Commuting Burden										
Mean travel time to work in minutes	2,632	12	23.1	0.6	27.0	0.2	26.6	0.2	24.6	0.2
"Peak" departure time	1,517	8	45.3	1.5	57.9	0.3	58.4	0.3	57.6	0.4
60 or more minutes travel time to		_								
Worked outside county of residence			/.5	0.8		0.2	9.3	0.2	/.8	0.2
WOINED OULSIDE COUTLY OF TESIDENCE.	000	. 0	1 19./	I T.S	1 23.0	0.5	1 ZO.L	I U.S	1 20.8	0.5

Notes: Mean travel time to work estimate represents minutes.

Commuting burden refers to multiple measures of the effort and time spent getting to jobs.

Peak departure time refers to departure for place of work from 6 to 8:59 a.m.

Shares may not sum to 100.0 due to rounding. Source: U.S. Census Bureau, 2013–2017 American Community Survey 5-Year Estimates.

Appendix Table 6. Commuting Characteristics for Workers Aged 16 and Older by Age and Annual Earnings: 2013–2017

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

	Tot	al				Ag	je			
	(in thou	sands)	16 to	24	25 to	o 54	55 to	o 64	65 and	lolder
		Margin		Margin		Margin		Margin		Margin
	Work-	of error	Per-	of error	Per-	of error	Per-	of error	Per-	of error
Characteristic	ers	(±)	cent	(±)	cent	(±)	cent	(±)	cent	(±)
LESS THAN \$25,000										
Total	51,720	54	79.7	0.1	27.4	0.1	25.2	0.1	45.1	0.1
Share by Means of Transportation										
Drove alone	36,530	49	68.9	0.1	70.4	0.1	73.3	0.1	75.2	0.1
Carpooled	6,089	23	12.8	0.1	12.5	0.1	9.0	0.1	6.9	0.1
Public transportation	2,932	15	5.6	<0.1	6.2 1 7		4.9	0.1	3.⊥ 1 z	
Bicycle	400	5	1.7	<0.1	0.8	<0.1	1.4	<0.1	0.3	<0.1
Walked.	2.374	15	7.4	0.1	3.5	<0.1	3.2	<0.1	2.9	0.1
Worked at home	2,560	12	2.6	<0.1	4.9	<0.1	7.8	0.1	10.4	0.1
Commuting Burden										
Mean travel time to work in minutes	49,160	51	20.8	<0.1	24.4	<0.1	23.5	0.1	22.0	0.1
"Peak" departure time	25,410	34	41.6	0.1	56.0	0.1	57.1	0.1	55.8	0.2
60 or more minutes travel time to work .	3,274	11	5.2	< 0.1	7.6	<0.1	6.9	0.1	5.7	0.1
Worked outside county of residence	10,380	23	19.3	0.1	20.9	0.1	19.5	0.1	18.1	0.1
\$25,000 TO \$49,999										
Total	44,350	51	16.8	0.1	33.1	0.1	29.7	0.1	23.1	0.1
Share by Means of Transportation										
Drove alone	35,510	52	77.7	0.2	80.0	0.1	81.8	0.1	78.2	0.2
Carpooled	4,036	24	10.5	0.1	9.5	0.1	7.4	0.1	6.5	0.1
Public transportation	1,798	10	5.1	0.1	4.1	<0.1	3.5	<0.1	3./	0.1
Bicycle	202	כ ז	1.2	<0.1	1.0	<0.1	0.9	<0.1	1.0	<0.1
Walked.	831	9	3.0	0.1	1.8	<0.1	1.7	<0.1	2.2	0.1
Worked at home	1,547	11	1.9	0.1	3.2	<0.1	4.4	0.1	8.2	0.1
Commuting Burden										
Mean travel time to work in minutes	42,800	48	25.0	0.1	26.2	<0.1	25.6	0.1	25.2	0.1
"Peak" departure time	27,550	38	58.7	0.2	65.0	0.1	64.4	0.1	63.5	0.2
60 or more minutes travel time to work .	3,446	14	7.6	0.1	8.2	<0.1	7.7	0.1	7.8	0.1
Worked outside county of residence	12,270	22	28.1	0.2	28.2	0.1	26.4	0.1	23.4	0.2
\$50,000 TO \$74,999										
Total	25,090	80	2.8	<0.1	19.3	0.1	19.9	0.1	12.8	0.1
Share by Means of Transportation										
Drove alone	20,400	63	75.8	0.5	81.1	0.1	83.5	0.1	78.6	0.3
Carpooled	1,850	20	8.0	0.3	7.8	0.1	6.1	0.1	5.5	0.1
Public transportation	1,104 219	8	8./	0.3	4.6		3.3	0.1	4.0	
Bicycle	111	2	0.7	0.1	0.9	<0.1	0.9	<0.1	0.2	<0.1
Walked.	373	5	3.1	0.2	1.5	<0.1	1.3	<0.1	2.0	0.1
Worked at home	1,025	8	2.2	0.1	3.8	<0.1	4.6	0.1	8.6	0.2
Commuting Burden										
Mean travel time to work in minutes	24,060	82	28.6	0.2	28.7	<0.1	28.2	0.1	27.5	0.2
60 or more minutes travel time to work	2 /75	6/ 1/	04.4 10.7	0.5	69.0		67.3 Q Q	0.1	06.5 07	0.3
Worked outside county of residence	8,385	31	34.7	0.5	34.0	0.1	32.4	0.1	28.1	0.3

See footnotes at end of table.

Appendix Table 6. Commuting Characteristics for Workers Aged 16 and Older by Age and Annual Earnings: 2013-2017-Con.

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

	To	tal	Age							
	(in thou	isands)	16 to 24		25 to 54		55 to 64		65 and older	
		Margin		Margin		Margin		Margin		Margin
	Work-	of error	Per-	of error						
Characteristic	ers	(±)	cent	(±)	cent	(±)	cent	(±)	cent	(±)
\$75,000 OR MORE										
Total	27,270	131	0.7	<0.1	20.1	0.1	25.2	0.1	19.0	0.1
Share by Means of Transportation										
Drove alone	21,030	102	65.2	0.9	76.5	0.1	79.3	0.1	76.2	0.2
Carpooled	1,614	17	9.5	0.6	6.2	0.1	5.3	0.1	4.9	0.1
Public transportation	1,774	13	12.5	0.6	7.1	< 0.1	4.9	< 0.1	4.7	0.1
Other means	334	4	2.0	0.3	1.2	< 0.1	1.2	< 0.1	1.3	0.1
Bicycle	159	3	1.1	0.3	0.6	< 0.1	0.4	< 0.1	0.3	<0.1
Walked	471	6	5.9	0.6	1.7	< 0.1	1.5	< 0.1	2.3	0.1
Worked at home	1,895	10	3.9	0.4	6.6	<0.1	7.4	0.1	10.4	0.2
Commuting Burden										
Mean travel time to work in minutes	25,380	128	29.4	0.4	31.8	<0.1	31.2	0.1	28.9	0.1
"Peak" departure time	18,560	106	59.2	1.2	73.7	0.1	72.5	0.1	69.5	0.2
60 or more minutes travel time to work .	3,385	22	12.1	0.6	13.6	0.1	13.0	0.1	11.4	0.2
Worked outside county of residence	9,974	57	31.7	0.8	37.3	0.1	35.9	0.1	30.5	0.2

Notes: Mean travel time to work estimate represents minutes.

Commuting burden refers to multiple measures of the effort and time spent getting to a place of work.

Peak departure time refers to departure for place of work from 6 to 8:59 a.m. Shares may not sum to 100.0 due to rounding.

Appendix Table 7a. Commuting Characteristics for Workers Aged 16 and Older by Age, Race and Hispanic/Latino Origin: 2013–2017

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

	Tot	al			Age					
	(in thou	isands)	16 to	o 24	25 t	o 54	55 to	o 64	65 and	dolder
Characteristic	Work- ers	Margin of error (±)	Per- cent	Margin of error (±)	Per- cent	Margin of error (±)	Per- cent	Margin of error (±)	Per- cent	Margin of error (±)
WHITE ALONE, NOT HISPANIC OR LATINO ORIGIN										
Total	95,340	112	58.8	0.1	61.6	<0.1	74.0	<0.1	79.4	0.1
Share by Means of Transportation Drove alone	76,020	93	75.4	0.1	80.1	<0.1	82.0	0.1	78.1	0.1
Public transportation Other means	7,120 2,970 986	38 11 7	10.3 2.9 1.2	<0.1 <0.1 <0.1	7.7 3.4 1.0	<0.1 <0.1 <0.1	5.7 2.5 1.0	<0.1 <0.1 <0.1	5.2 2.3 1.1	<0.1 <0.1 <0.1
Walked Worked at home	2,390 5,267	5 13 17	1.1 6.5 2.7	<0.1 0.1 <0.1	0.6 2.0 5.2	<0.1 <0.1 <0.1	0.4 1.8 6.7	<0.1 <0.1 <0.1	0.3 2.4 10.6	<0.1 <0.1 0.1
Commuting Burden Mean travel time to work in minutes "Peak" departure time	90,070 58,340	121 132	20.4 46.1	<0.1 0.1	26.4 67.8	<0.1 0.1	26.2 67.5	<0.1	23.9 62.9	<0.1 0.1
Worked outside county of residence	27,880	23 54	4.6 22.9	0.1	31.1	<0.1	29.2	0.1	23.1	0.1
BLACK OR AFRICAN AMERICAN ALONE, NOT HISPANIC OR LATINO ORIGIN										
Total	16,430	22	12.2	<0.1	11.5	<0.1	9.5	<0.1	7.8	0.1
Share by Means of Transportation Drove alone Carpooled. Public transportation. Other means Bicycle. Walked. Worked at home.	11,940 1,534 1,729 247 51 444 480	20 16 10 5 2 5 6	61.5 13.6 13.2 2.2 0.5 6.9 2.1	0.3 0.2 0.1 <0.1 0.1 0.1	74.6 8.8 10.0 1.4 0.3 2.0 2.9	0.1 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	74.7 8.0 10.5 1.3 0.3 1.9 3.3	0.2 0.1 0.2 0.1 <0.1 0.1 0.1	74.2 7.7 9.7 1.5 0.2 2.1 4.6	0.4 0.2 0.3 0.1 <0.1 0.1 0.2
Commuting Burden Mean travel time to work in minutes "Peak" departure time	15,950 8,923 1,745 4,730	23 22 11 17	24.6 41.2 8.6 22.0	0.1 0.3 0.2 0.2	28.9 58.5 11.3 30.3	0.1 0.1 0.1 0.1	29.7 58.8 11.8 29.3	0.1 0.2 0.1 0.2	28.1 56.1 10.4 25.1	0.2 0.4 0.2 0.4
ASIAN ALONE, NOT HISPANIC OR LATINO ORIGIN										
Total	8,361	13	3.9	<0.1	6.3	<0.1	4.8	<0.1	4.2	<0.1
Share by Means of Transportation Drove alone Carpooled Public transportation Other means Bicycle Warked Worked.at home	5,550 1,062 912 103 49 325 360	13 9 7 3 2 4	57.4 13.3 12.3 1.6 1.4 10.9	0.4 0.3 0.1 0.1 0.3 0.1	67.5 12.3 11 1.2 0.5 3.3	0.1 0.1 0.1 <0.1 <0.1 0.1 0.1	66.8 14.2 9.8 1.3 0.3 2.8	0.3 0.2 0.2 0.1 <0.1 0.1	64.5 13.9 9.7 1.5 0.3 3.2	0.6 0.3 0.2 0.1 0.2
Commuting Burden Mean travel time to work in minutes "Peak" departure time	8,001 4,769 966 2,379	14 14 8 10	24.1 44.2 8.0 21.1	0.2 0.4 0.2 0.3	30.2 62.1 12.5 29.8	0.1 0.2 0.1 0.1	30.4 57.7 12.4 27.5	0.1 0.3 0.2 0.3	29.7 55.6 11.9 24.8	0.3 0.7 0.4 0.5

See footnotes at end of table.

Appendix Table 7a. Commuting Characteristics for Workers Aged 16 and Older by Age, Race and Hispanic/Latino Origin: 2013-2017—Con.

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

	Total (in thousands)		Age							
			16 to 24		25 to 54		55 to 64		65 and older	
Characteristic		Margin		Margin		Margin		Margin		Margin
		of error	Per-	of error						
	Workers	(±)	cent	(±)	cent	(±)	cent	(±)	cent	(±)
HISPANIC OR LATINO ORIGIN (OF ANY RACE)										
Total	24,460	25	21.1	<0.1	18.0	<0.1	10.0	<0.1	7.2	0.1
Share by Means of Transportation										
Drove alone	17,200	26	65.5	0.2	71.3	0.1	71.6	0.2	68.8	0.4
Carpooled	3,445	21	16.4	0.2	13.9	0.1	12.2	0.2	11.5	0.4
Public transportation	1,761	10	7.6	0.1	7.0	<0.1	7.5	0.1	8	0.3
Other means	419	6	2.3	0.1	1.6	< 0.1	1.5	0.1	1.7	0.1
Bicycle	153	4	0.9	< 0.1	0.6	< 0.1	0.4	< 0.1	0.4	0.1
Walked	736	10	5.4	0.1	2.5	<0.1	2.6	0.1	3.3	0.2
Worked at home	752	7	1.9	0.1	3.1	<0.1	4.3	0.1	6.4	0.2
Commuting Burden										
Mean travel time to work in minutes	23,710	26	23.5	0.1	28.2	0.1	28.4	0.1	27.2	0.2
"Peak" departure time	13,860	27	46.1	0.2	61.4	0.1	59.2	0.2	56.8	0.5
60 or more minutes travel time to work .	2,409	14	7.2	0.1	10.8	0.1	10.9	0.1	10.3	0.3
Worked outside county of residence	5,106	22	16.8	0.2	21.9	0.1	21.0	0.2	17.9	0.4

Notes: Mean travel time to work estimate represents minutes.

Commuting burden refers to multiple measures of the effort and time spent getting to a place of work.

Peak departure time refers to departure origin for place of work from 6 to 8:59 a.m.

Shares may not sum to 100.0 due to rounding.

American Indian or Alaska Native alone, not Hispanic or Latino; Native Hawaiian or Other Pacific Islander alone, not Hispanic or Latino;

Some other race, not Hispanic or Latino; or Two or More Races, not Hispanic or Latino are not included in this table due to their small sample size.

Appendix Table 7b. Margins of Error of Means of Transportation for Workers Aged 16 and Older by Race and Hispanic or Latino Origin: 2013–2017

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

	Race and Hispanic or Latino Origin									
Means of transportation		Not Hispanic or Latino								
			Black or African		Hispanic or					
	Total	White alone	American alone	Asian alone	any race)					
Total	0.0	<0.1	<0.1	<0.1	<0.1					
Share by Means of Transportation										
Drove alone	<0.1	<0.1	0.1	0.1	0.1					
Carpooled	<0.1	<0.1	0.1	0.1	0.1					
Public transportation	<0.1	<0.1	0.1	0.1	<0.1					
Other means	<0.1	<0.1	<0.1	< 0.1	<0.1					
Bicycled	<0.1	<0.1	<0.1	< 0.1	<0.1					
Walked	<0.1	<0.1	<0.1	0.1	<0.1					
Worked at home	<0.1	<0.1	<0.1	0.1	<0.1					

Note: American Indian or Alaska Native alone, not Hispanic or Latino; Native Hawaiian or Other Pacific Islander alone, not Hispanic or Latino; Some other race, not Hispanic or Latino; or Two or More Races, not Hispanic or Latino are not included in this table due to their small sample size.