Home-Based Workers and the COVID-19 Pandemic

American Community Survey Reports

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INTRODUCTION

The COVID-19 pandemic began to affect U.S. commuting patterns and workplace conditions in March 2020, with social distancing measures, reduced transportation options, and uncertainty about workplace safety leading many people to work from home.[1] According to the American Community Survey (ACS), both the number and the percentage of home-based workers more than tripled from 2019 to 2021.[2] The percentage of U.S. workers who worked from home increased from 5.7 percent of workers in 2019 (roughly 9 million workers) to 17.9 percent in 2021 (about 27.6 million workers). The number and percentage of home-based workers in 2021 were unprecedented in the ACS, but the changed commuting patterns reflected uneven adoption of home-based work along a variety of key population characteristics. This report offers a close look at the sociodemographic, occupational, and geographic characteristics of home-based workers for 2019 and 2021.[3]

THE HISTORICAL TRAJECTORY OF HOME-BASED WORK IN THE UNITED STATES

For some workers, recent advancements in computing and communication technologies removed barriers to home-based work, allowing them to continue their work duties from home. However, home-based work has not always been associated with information technology. Prior to the widespread availability of home computers and internet access, home-based work was largely associated with agricultural activity such as farming and ranching. The decline of family farming led to sharp decreases in the number of home-based workers between 1960 and 1980, but by 1990 the

[1] 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-FY22-POP001-0131.

[2] This report uses "home-based workers" to refer to the population aged 16 and over who were employed and at work and reported their commuting mode as "worked from home."

[3] In 2020, the onset of the COVID-19 pandemic disrupted data collection and resulted in lower survey response rates. Those who responded to the survey had statistically different social, economic, and housing characteristics than those who did not. This resulted in unreasonable estimates, or ones that were inconsistent with benchmarks and administrative data. These inconsistencies signaled a serious quality issue and nonresponse bias in the 2020 ACS 1-year data. Rather than release the estimates using standard methodology, the Census Bureau created experimental estimates using a new weighting methodology aimed at mitigating the nonresponse bias in the 2020 data. Rather than comparing 2021 estimates to 2020 experimental estimates, this report compares the 2021 and 2019 data, which used consistent weighting methodologies. For additional information on the experimental data, visit <www.census.gov/programs-surveys/acs/data/experimental-data.html>.

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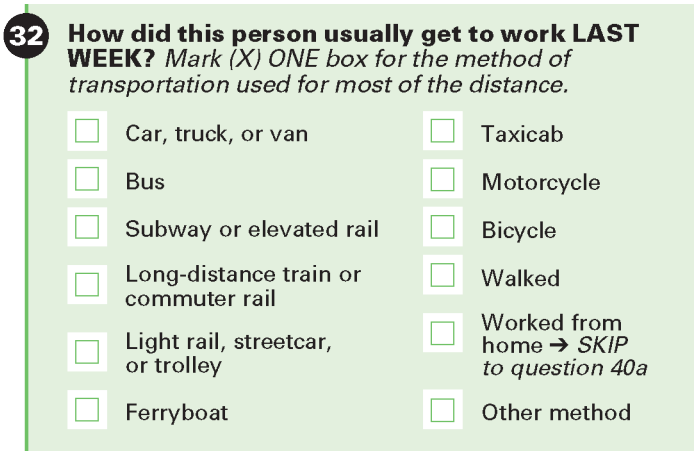
trend reversed as computers and internet access became more common, facilitating the emergence of new types of at-home work.[4] This trend continued through the first decade of the 2000s: in 2005, about 3.6 percent of workers worked the majority of the week at home, rising to 4.3 percent in 2010.[5] By 2018, 85 percent of U.S. households had a broadband internet subscription. This widespread availability of high-speed internet would facilitate the expansion in working from home during the pandemic.[6]

MEASURING HOME-BASED WORK IN THE ACS

The Census Bureau conducts the ACS annually to gather information about the socioeconomic, housing, and demographic characteristics of communities across the United States.[7] The ACS asks workers aged 16 and over to select how they usually got to work in the previous week from a list of options (Figure 1).[8] People commuting by more than one method are asked to report the one used to travel the longest distance. People commuting by different methods on different days are asked to select the method used on most of the days.[9]

Figure 1.
Question on Travel Mode From the 2021 American Community Survey



Note: For more information, refer to <www.census.gov/programs-surveys/acs/methodology/questionnaire-archive.html>.
Source: U.S. Census Bureau, 2021 American Community Survey.

In 2019, about 9 million people in the United States primarily worked from home (Appendix Table 1). They accounted for 5.7 percent of the total workforce (Figure 2). The only commuting modes reported by more workers in 2019 were driving alone (75.9 percent of workers) and carpooling (8.9 percent). By 2021, 17.9 percent of workers—27.6 million people—worked from home. Both the percentage and number are the highest ever recorded by the ACS. Notably, while the total number of home-based workers increased dramatically over this period, the total size of the workforce declined by roughly 2.6 million people, from 156.9 million in 2019 to 154.3 million in 2021.

As more people worked from home in 2021, fewer commuted by car, public transportation, or walking/bicycle. Figure 2 compares the percentages who traveled by key modes of transportation in 2019 and 2021

[4] These results are available from the decennial censuses conducted in 1960, 1970, 1980, and 1990. The "long form" was discontinued after 2000 and replaced by the American Community Survey. In 1960, roughly 4.7 million workers worked at home, compared to 2.7 million in 1970, 2.2 million in 1980, and 3.4 million in 1990, according to Phillip Salopek, "Increase in At-Home Workers Reverses Earlier Trend," Census Brief, CENBR/98-2, U.S. Census Bureau, Washington, DC, 1998.

[5] According to results from the American Community Survey, presented in Peter J. Mateyka, Melanie A. Rapino, and Liana Christin Landivar, "Home-Based Workers in the United States: 2010," *Current Population Reports*, P70-132, U.S. Census Bureau, Washington, DC, 2012.

[6] Michael Martin, "Computer and Internet Use in the United States: 2018," *American Community Survey Reports*, ACS-49, U.S. Census Bureau, Washington, DC, 2021.

[7] Estimates for Puerto Rico are not included in the national estimates provided in this report, but estimates for Puerto Rico are provided in tables and figures where specified.

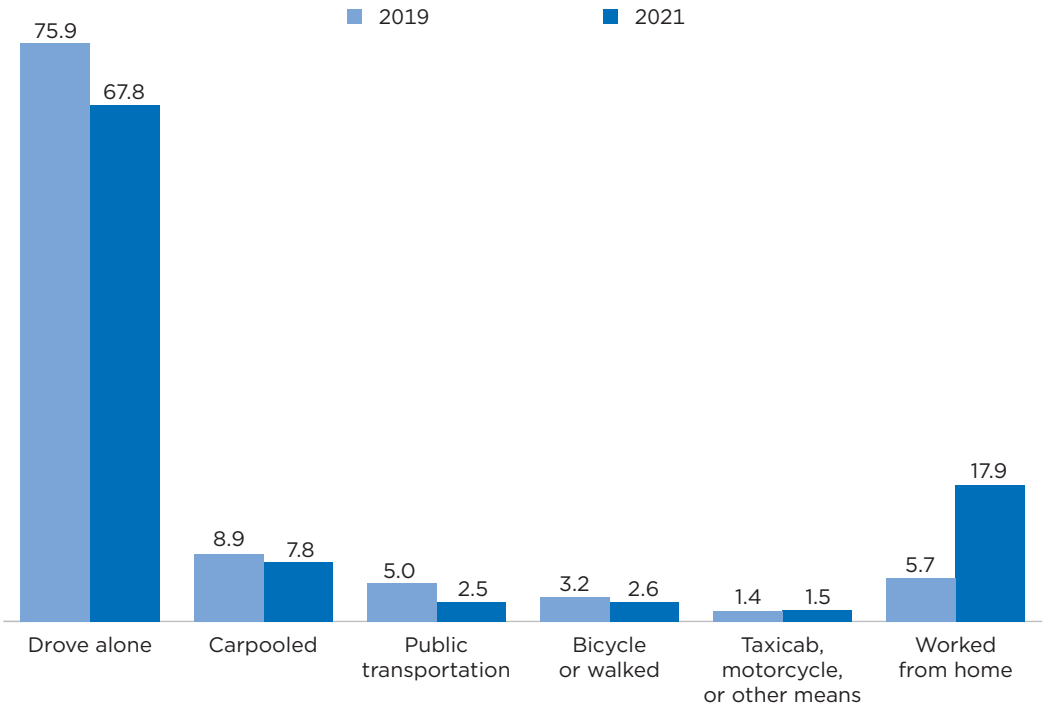
[8] The "worked from home" category was updated in 2019 to better reflect contemporary nomenclature. Prior to 2019, the category was labeled "worked at home." More information on the update is available at <www.census.gov/content/dam/Census/library/working-papers/2017/acs/2017_McKenzie_01.pdf>.

[9] Because it aims to capture the respondent's "usual" commuting mode, the ACS provides an estimate of workers who work from home for the majority of the workweek, and likely excludes those who work from home less frequently or less regularly. Other surveys conducted by the Census Bureau, such as the Survey of Income and Program Participation (SIPP) and the American Time Use Survey (ATUS), collect different detailed information about commuting and working from home.

Figure 2.

Means of Transportation to Work in the United States: 2019 and 2021

(Workers aged 16 and older living in the United States, excluding Puerto Rico. In percent)



Note: Margins of error for all estimates are 0.1 or less. Percentages and margins of error for all modes of transportation are available on ACS Table S0801 at <https://data.census.gov>. Percentages may not sum to 100 due to rounding. For information on confidentiality protection, sampling error, nonsampling error, and definitions, refer to <www.census.gov/acs>.
Source: U.S. Census Bureau, 2019 and 2021 American Community Survey, 1-year estimates.

(totals and percentages of all modes are reported in Appendix Table 1). The largest group of workers in both years drove alone to work (75.9 percent in 2019 and 67.8 percent in 2021). Carpooling declined from 8.9 percent of workers in 2019 to 7.8 percent in 2021. Public transportation commuting declined by about half over this period to 2.5 percent of workers—the lowest percentage ever recorded by the ACS. Bicycling or walking to work was less common in 2021 than in 2019, declining from 3.2 percent of workers in 2019 to 2.6 percent in 2021. The percentage of workers commuting by taxicab, motorcycle, or other means remained roughly the same over this period.

CHARACTERISTICS OF HOME-BASED WORKERS

Comparisons between the 2019 and 2021 workforce are challenged by the period of mass unemployment (especially among service workers) that followed the onset of the COVID-19 pandemic.[10] Looking specifically at the population that usually worked from home, there were notable shifts in the demographic composition of home-based workers between 2019 and 2021. Home-based workers have been increasingly female, educated, and residentially mobile compared to commuters, while the age and race/ethnicity profile of home-based workers has come to resemble more closely that of commuters.

Sex and Age

Though men made up the larger share of the workforce in both 2019 and 2021, more than half of home-based workers were

[10] Sean Smith, Roxanna Edwards, and Hao C. Duong, "Unemployment Rises in 2020, as the Country Battles the COVID-19 Pandemic," U.S. Bureau of Labor Statistics, *Monthly Labor Review*, June 2021, <www.bls.gov/opub/mlr/2021/article/unemployment-rises-in-2020-as-the-country-battles-the-covid-19-pandemic.htm>.

Table 1.

Selected Sociodemographic Characteristics of Commuters and Home-Based Workers: 2019 and 2021

(Workers aged 16 and over living in the United States, excluding Puerto Rico. For information on confidentiality protection, sampling error, nonsampling error, and definitions, refer to <www.census.gov/acs>)

Demographic characteristic	2019				2021			
	Commuters		Home-based workers		Commuters		Home-based workers	
	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)
Sex								
Male	53.0	0.1	49.3	0.3	53.9	0.1	48.7	0.2
Female	47.0	0.1	50.7	0.3	46.1	0.1	51.3	0.2
Age								
16 to 24	13.4	0.1	6.2	0.2	14.2	0.1	6.8	0.1
25 to 34	23.1	0.1	16.4	0.2	22.0	0.1	23.1	0.1
35 to 44	21.0	0.1	22.2	0.3	21.1	0.1	24.7	0.1
45 to 54	20.0	0.1	23.1	0.2	19.7	0.1	21.4	0.1
55 to 64	16.7	0.1	21.0	0.2	17.0	0.1	17.0	0.1
65 and over	5.8	0.1	11.0	0.2	6.0	0.1	6.9	0.1
Educational Attainment (Workers Aged 25 and Over)								
Less than high school graduate	8.1	0.1	4.8	0.1	8.5	0.1	2.5	0.1
High school graduate (includes equivalency)	24.0	0.1	15.6	0.2	25.4	0.1	10.4	0.1
Some college or other associate's degree	29.8	0.1	27.0	0.3	30.0	0.1	21.9	0.2
Bachelor's degree or higher	38.1	0.1	52.6	0.3	36.1	0.1	65.2	0.2
Race/Ethnicity								
One race	97.3	0.1	97.5	0.1	88.1	0.1	90.5	0.1
White	72.8	0.1	80.5	0.3	62.2	0.1	66.8	0.2
Black	12.2	0.1	7.8	0.2	11.4	0.1	9.5	0.1
Asian	6.2	0.1	5.7	0.1	5.5	0.1	9.6	0.1
Some other race (including American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander)	6.1	0.1	3.5	0.1	9.0	0.1	4.5	0.1
Two or more races	2.7	0.1	2.5	0.1	11.9	0.1	9.5	0.1
Hispanic or Latino origin (of any race)	18.1	0.1	11.9	0.2	19.5	0.1	11.7	0.1
White alone, not Hispanic or Latino	61.0	0.1	72.1	0.3	59.1	0.1	64.6	0.2
Geographic Mobility								
Same residence 1 year ago (nonmovers)	85.5	0.1	86.5	0.2	86.4	0.1	83.9	0.1
Moved within same state	11.7	0.1	9.3	0.2	10.9	0.1	11.8	0.1
Moved from different state, Puerto Rico, or U.S. Island Area	2.4	0.1	3.7	0.1	2.3	0.1	4.0	0.1
Moved from abroad	0.4	0.1	0.5	0.1	0.3	0.1	0.4	0.1

Note: The Hispanic origin and race codes were updated in 2020. Percentages may not sum to 100 due to rounding. For more information on the Hispanic origin and race code changes, please visit the American Community Survey Technical Documentation website at <www.census.gov/programs-surveys/acs/technical-documentation/code-lists.html>.

Source: U.S. Census Bureau, 2019 and 2021 American Community Survey, 1-year estimates.

women (Table 1).[11] Women made up a larger share of home-based workers in 2021 (51.3 percent) compared to 2019 (50.7 percent). Over the same period, women made up a declining share of commuters—from 47.0 percent in 2019 to 46.1 percent in 2021. The expansion of remote work among white-collar workers has likely contributed to the increasing share of women among home-based workers, and their corresponding decline among commuters.[12]

In 2019, older workers were over-represented in home-based work.[13] By 2021, the age distribution of home-based workers

[11] Refer to 2019 and 2021 American Community Survey, 1-year estimates, Table S0802.

[12] Tim Henderson, "As Women Return to Jobs, Remote Work Could Lock in Gains," The Pew Charitable Trusts, Stateline Article, May 2022, <www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2022/05/03/as-women-return-to-jobs-remote-work-could-lock-in-gains>.

[13] Earlier research using 2013–2017 ACS data also indicated that older workers were more likely than younger workers to work from home; refer to Michael Burrows, Charlynn Burd, Adam Smith, Wan He, and Brian McKenzie, "The Commuting Patterns of Older Workers: 2013–2017," U.S. Census Bureau, *American Community Survey Reports*, ACS-45, U.S. Government Printing Office, Washington, DC, November 2020.

was generally closer to that of commuters. People aged 55 to 64 made up about 17 percent of commuters and 21 percent of home-based workers in 2019; by 2021, 55- to 64-year-olds made up 17 percent of commuters and home-based workers alike. The share of home-based workers aged 65 and older also declined from 11.0 percent in 2019 to 6.9 percent in 2021. Conversely, workers younger than 45 made up a larger share of home-based workers in 2021 than in 2019. Workers aged 25 to 34 made up around 23 percent of home-based workers in 2021, up from 16 percent in 2019, and those aged 35 to 44 made up roughly 25 percent of home-based workers in 2021 compared to about 22 percent in 2019.

Education, Race, and Ethnicity

Home-based workers had a distinctly higher level of education than commuters in 2019. About 38 percent of commuters had a bachelor's degree or higher, compared to about 53 percent of home-based workers. Over 8 percent of commuters did not graduate from high school, compared to less than 5 percent of home-based workers. By 2021, just 2.5 percent of home-based workers had not graduated from high school, while 65.2 percent had a bachelor's degree or higher.

Black and Hispanic workers were generally less likely to work from home.[14] In 2019, before the onset of the pandemic, more than 80 percent of home-based workers reported their race as White only (compared to 73 percent of commuters), and less than 8 percent of home-based workers reported their race as Black only (compared to 12 percent of commuters).[15] Similarly, Hispanic or Latino origin workers (of any race) made up 18.1 percent of commuters in 2019, compared to 11.9 percent of home-based workers. These racial and ethnic disparities decreased by some measures in 2021, when White-only workers made up roughly 67 percent of home-based workers and the share of Black-only home-based workers increased to about 10 percent.[16]

Geographic Mobility

In 2021, home-based workers were more likely than commuters to have moved to a different residence in the past year. This was a reversal of the relationship in 2019, when commuters were more likely to have moved. The overall difference in 2019 between home-based workers and commuters was linked to home-based workers having been more than 2 percentage points less likely to move within the same state (9.3 percent compared to 11.7 percent), despite having been more likely to move from a different state, Puerto Rico, or U.S. Island Area (3.7 percent compared to 2.4 percent). In 2021, the share of home-based workers who moved from a different state, Puerto Rico, or U.S. Island Area rose to 4.0 percent, and the share of home-based workers who moved within state increased by 2.5 percentage points to 11.8 percent. The share of commuters who moved within the same state declined from 11.7 percent in 2019 to 10.9 percent in 2021, and the share of commuters who moved from a different state, Puerto Rico, or U.S. Island Area did not change. Thus, in 2021, 86.4 percent of commuters reported living in the same residence a year earlier, compared to 83.9 percent of home-based workers, indicating that home-based workers were more geographically mobile during this period of the pandemic.

INDUSTRY AND OCCUPATION

Not all work can be carried out from home, and several pandemic-era analyses attempted to summarize which jobs can. For example, a 2020 McKinsey Global Institute report on remote work indicated that the ability to work remotely was concentrated in the finance, management, professional services, and information sectors, estimating that about 20 percent of the workforce could conduct most work duties from home.[17] Other analysis by Dingel and Neiman (2020) suggested that about 38 percent of

[14] Michael Karpman, Stephen Zuckerman, Dulce Gonzalez, and Genevieve M. Kenney, "The COVID-19 Pandemic Is Straining Families' Abilities to Afford Basic Needs," Urban Institute, 2020.

[15] Individuals who responded to the question on race by indicating only one race are referred to by that race alone. "Some Other Race" refers to individuals who did not identify with any of the five race categories, and "Two or More Races" denotes the population that identified with more than one race. People of Hispanic origin may be of any race. The use of these categories and terminology does not imply that this is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches.

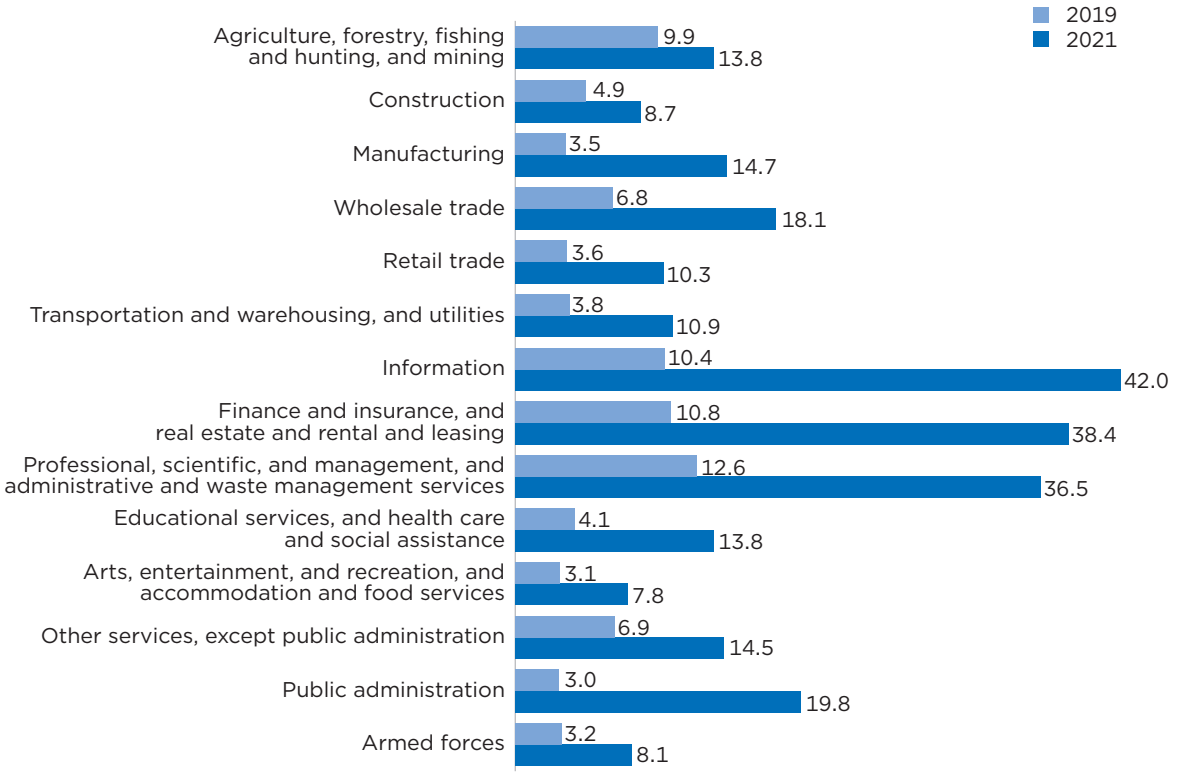
[16] Comparability of these estimates is limited by an update to Hispanic origin and race codes implemented in 2020. For more information on the Hispanic origin and race code changes, please visit the American Community Survey Technical Documentation website at <https://www.census.gov/programs-surveys/acs/technical-documentation/code-lists.html>.

[17] Susan Lund, Anu Madgavkar, James Manyika, and Sven Smit, "What's Next for Remote Work: An Analysis of 2,000 Tasks, 800 Jobs, and Nine Countries," McKinsey Global Institute, 2020.

Figure 3.

Percentage of Home-Based Workers by Industry Group: 2019 and 2021

(Workers aged 16 and older living in the United States, excluding Puerto Rico. In percent)



Note: Margins of error for all estimates are presented in Table 2 and Appendix Table 2. For information on confidentiality protection, sampling error, nonsampling error, and definitions, refer to <www.census.gov/acs>.
Source: U.S. Census Bureau, 2019 and 2021 American Community Survey, 1-year estimates.

workers could potentially work from home.[18] ACS data offer an opportunity to assess recent changes in such patterns using reported commuting behavior by industry and occupation.

The Census Bureau defines industry as the kind of business conducted by a person's primary employing organization.[19] Figure 3 illustrates that there were large differences in the percentage of home-based workers within 14 aggregated industry groups in 2019. Among the industry groups with the lowest likelihood of working from home were public administration (3.0 percent); arts, entertainment, and recreation, and accommodation and food services (3.1 percent); and armed forces (3.2 percent). Those with the highest percentages of home-based workers included professional, scientific, and management, and administrative and waste management services (12.6 percent); finance and insurance, and real estate and rental and leasing (10.8 percent); and information (10.4 percent). By 2021, a larger percentage of workers in every industry group worked from home, with notable variation. In 2019, about 10 percent of workers in the agriculture, forestry, fishing and hunting, and mining industry worked from home; this share increased to 14 percent in 2021—one of the smallest increases among all industries. The percentage of home-based workers in the Information industry increased to 42 percent, the most observed among industries in 2021. Roughly 20 percent of public administration workers in 2021 worked from home, along with over 36 percent of professional, scientific,

[18] Jonathan I. Dingel and Brent Neiman, "How Many Jobs Can Be Done at Home?" NBER Working Paper Series, Working Paper 26948, National Bureau of Economic Research, Cambridge, MA, 2020.

[19] The ACS only collects information on a person's primary job during the reference period ("last week"). If respondents worked more than one job, then they are to describe the job at which they worked the most hours.

Table 2.

Percentage of Home-Based Workers by Industry and Occupation: 2021

(Workers aged 16 and over living in the United States, excluding Puerto Rico. For information on confidentiality protection, sampling error, nonsampling error, and definitions, refer to <www.census.gov/acs)

Industry	Occupation													
	All occupations		Management, Business, Science and Arts		Service		Sales and Office		Natural Resources, Construction, Maintenance		Production, Transportation, Material Moving		Military	
	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)
All industries	**17.9**	**0.1**	**27.9**	**0.1**	**7.5**	**0.1**	**18.5**	**0.1**	**5.7**	**0.1**	**5.3**	**0.1**	**10.7**	**0.9**
Agriculture, forestry, fishing, hunting, mining	13.8	0.4	24.5	0.8	9.4	2.2	18.5	1.9	6.6	0.4	3.6	0.8	X	X
Construction	8.7	0.2	16.1	0.4	4.7	1.2	19.3	0.9	5.4	0.2	4.7	0.6	X	X
Manufacturing	14.7	0.2	28.6	0.4	4.8	0.8	21.0	0.5	4.4	0.4	4.4	0.1	X	X
Wholesale trade	18.1	0.4	29.7	1.0	5.2	1.5	21.4	0.7	5.2	1.0	4.5	0.4	X	X
Retail trade	10.3	0.1	25.2	0.5	5.0	0.5	9.4	0.2	4.8	0.6	4.4	0.2	X	X
Transportation, warehousing, utilities	10.9	0.2	28.2	0.7	5.8	0.9	12.0	0.5	4.1	0.4	6.2	0.3	X	X
Information	42.0	0.7	49.4	0.8	11.0	2.7	35.7	1.4	10.9	1.2	15.1	2.5	X	X
Finance, insurance, real estate	38.4	0.3	45.3	0.4	15.4	1.3	33.2	0.5	8.2	1.2	14.6	1.8	X	X
Professional, scientific, management, administrative	36.5	0.2	47.1	0.2	8.0	0.3	37.8	0.5	9.3	0.8	8.0	0.5	X	X
Educational services, healthcare, social assistance	13.8	0.1	15.1	0.2	9.5	0.2	15.2	0.3	4.5	0.6	4.9	0.6	X	X
Arts, entertainment, recreation, accommodation, food services	7.8	0.1	18.0	0.4	4.6	0.1	7.2	0.4	5.7	1.2	5.2	0.6	X	X
Other services (except public administration)	14.5	0.3	26.5	0.6	10.3	0.4	14.1	0.6	7.1	0.4	7.3	0.6	X	X
Public administration	19.8	0.2	29.9	0.4	7.8	0.4	17.7	0.6	6.1	1.0	9.8	1.3	X	X
Armed forces	8.1	0.5	6.7	1.0	5.2	1.7	5.8	3.1	5.4	1.3	3.2	1.0	10.7	0.9

X Not applicable.
Source: U.S. Census Bureau, 2021 American Community Survey, 1-year estimates.

management, and administrative workers and nearly 40 percent of finance, insurance, and real estate workers.

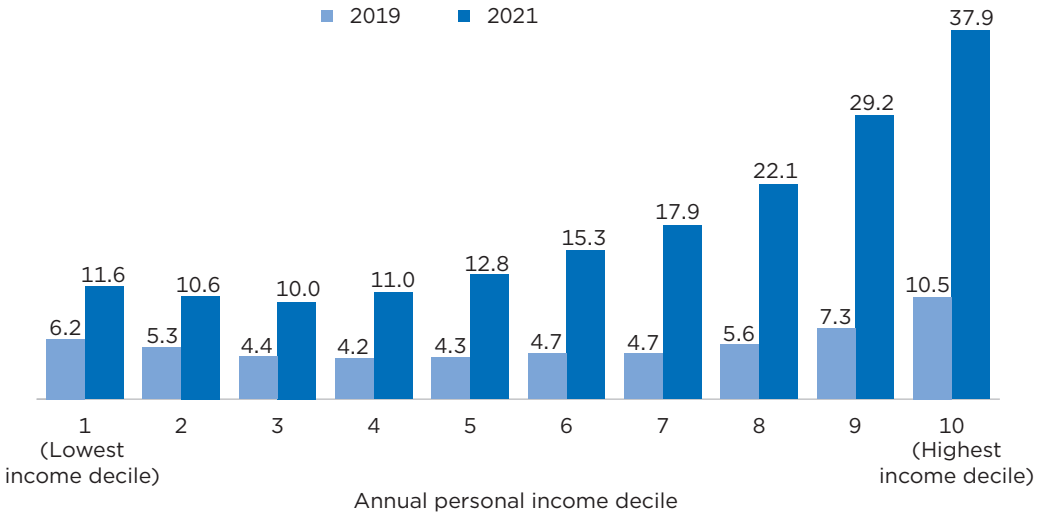
Occupation is the kind of work people do to earn a living at their primary job. Unsurprisingly, certain occupations appear to lend themselves to much higher levels of home-based work. In 2021, just over 5 percent of workers in production, transportation, and material moving occupations engaged in home-based work–the lowest percentage among the six occupation groups (Table 2). About 28 percent of workers in management, business, science and arts occupations worked from home. A small percentage of natural resources, construction, and maintenance workers (5.7 percent) and service workers (7.5 percent) worked from home.

Crossing industry by occupation highlights the specific groups most likely to work from home. Table 2 displays the percentage working from home for each of six occupation groups across each of 14 industry groups in 2021 (estimates from 2019 are in Appendix Table 2). Notably, nearly half of information industry workers in management, business, science and arts occupations worked from home—the highest percentage observed in 2021. This represents almost 10 times that of retail trade industry workers in service occupations who worked from home during the same period (5 percent). The next two highest percentages were also found among management, business, science and arts occupations, with roughly 47 percent of professional,

Figure 4.

Percentage of Home-Based Workers by Income: 2019 and 2021

(Workers aged 16 and older living in the United States, excluding Puerto Rico. In percent)



Note: Margins of error for all estimates are 0.2 or less. For information on confidentiality protection, sampling error, nonsampling error, and definitions, refer to <www.census.gov/acs>.
Source: U.S. Census Bureau, 2019 and 2021 American Community Survey, 1-year estimates.

scientific, management and administrative industry workers and 45 percent of finance, insurance, and real estate industry workers engaging in home-based work.

INCOME

Given the previously described relationship with industry and occupation, there is likely a strong link between home-based work and income. Prior to the pandemic, Dingel and Neiman (2020) identified a positive correlation between the ability to work from home and hourly earnings. Less than 1 year into the pandemic, the Census Bureau's Household Pulse Survey found that almost three-quarters of workers in households earning more than $200,000 per year switched to working from home, compared to about 13 percent of workers earning under $25,000.[20]

The ACS collects detailed income data and permits an exploration of the relationship between income and home-based work. In this analysis, annual personal income is divided into deciles, with equally sized groups of workers occupying each of ten groups according to their place in the income distribution. This approach facilitates comparisons of outcomes at different places in the income distribution in 1 year, or at the same place in the income distribution at different years.

Figure 4 displays, in paired bars, the percentage of home-based workers in each income decile in 2019 and 2021. Working from home was more common for workers within every income decile in 2021 compared to 2019, and the highest-paid workers (that is, workers within the tenth income decile) were the most likely to work from home. Among the lowest (first) income decile of workers, the percentage working from home nearly doubled, increasing from about 6 percent in 2019 to nearly 12 percent in 2021. Within the highest decile, the percentage working from home more than tripled, rising from 10.5 percent in 2019 to 37.9 percent in 2021. The remainder of the distribution followed a similar pattern both in 2019 and 2021—a decline after the first decile followed by increases after the third or fourth decile—but with uniformly higher percentages in 2021. The baseline for working from home shifted

[20] Joey Marshall, Charlynn Burd, and Michael Burrows, "Those Who Switched to Telework Have Higher Income, Education and Better Health," *America Counts: Stories Behind the Numbers*, U.S. Census Bureau, Washington, DC, March 2021, <www.census.gov/library/stories/2021/03/working-from-home-during-the-pandemic.html>.

Table 3.

Percentage of Home-Based Workers by Region and Community Type: 2021

(Workers aged 16 and over living in the United States, excluding Puerto Rico. For information on confidentiality protection, sampling error, nonsampling error, and definitions, refer to <www.census.gov/acs>)

Community type	United States		Region							
			Northeast		Midwest		South		West	
	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)
All communities	**17.9**	**0.1**	**20.3**	**0.2**	**15.8**	**0.1**	**16.2**	**0.1**	**20.6**	**0.1**
Metropolitan area	19.2	0.1	20.9	0.2	17.7	0.1	17.6	0.1	21.4	0.1
In principal city	20.7	0.1	22.4	0.4	18.9	0.2	18.6	0.2	23.4	0.2
Remainder	18.2	0.1	20.3	0.2	17.1	0.2	17.0	0.2	19.4	0.2
Micropolitan area	8.9	0.2	11.7	0.4	8.0	0.2	7.1	0.2	12.6	0.5
In principal city	8.0	0.3	11.5	1.3	7.1	0.3	6.8	0.4	11.0	0.6
Remainder	9.3	0.2	11.7	0.4	8.6	0.3	7.2	0.3	13.5	0.7
Outside metropolitan or micropolitan area	8.3	0.2	11.7	0.6	8.5	0.2	6.6	0.3	12.0	0.7

Source: U.S. Census Bureau, 2021 American Community Survey, 1-year estimates.

dramatically over this period. Only the top decile (representing the highest-paid tenth of home-based workers in that year) exceeded 10 percent in 2019, but by 2021, roughly 10 percent or more of workers in every income decile worked from home.

GEOGRAPHIC VARIATION

Geographic factors including community type, state, and metropolitan (metro) areas all likely play a role in workers' ability to work from home.[21] Part of this could be due to the geographical limitations of technology infrastructure in the United States. According to a Stanford University study, around one-third of people working from home during the pandemic reported poor internet service that made working from home difficult.[22] Another factor might be the tendency of information technology jobs to cluster around and within particular cities, a relationship that appeared empirically intact through the outset of the pandemic.[23] Many other factors such as local amenities, housing costs, and transportation infrastructure also likely contribute to commuting choices.

Working from home varied by community type differently in 2021 than in 2019. Communities situated in the principal cities of metro areas had the highest percentage of home-based workers in 2021 compared to other community types (20.7 percent, Table 3). This marked a departure from 2019, when workers living in the remainder of metro areas (rather than their principal cities) were more likely to work from home (6.0 percent compared to 5.6 percent, Appendix Table 3). By region, home-based work was most reported in the West (20.6 percent) and the Northeast (20.3 percent). Workers in the Midwest reported the lowest percentage of home-based workers (15.8 percent), with the South slightly higher (16.2 percent). The West also had the largest share (6.7 percent) of home-based workers in 2019. Within each region, communities situated in metro areas had a higher percentage of home-based workers in 2021 than communities situated in micropolitan (micro) areas and communities outside metro or micro areas. The Northeast, Midwest, and West regions, in 2019, had a higher percentage working from home in communities outside metro or micro areas; only in the South was the highest percentage of home-based workers located in metro areas (Appendix Table 3).

Working from home increased in all 50 states, as well as the District of Columbia and Puerto Rico (described here as "state equivalents"). Many states and state equivalents with high

[21] Metropolitan Statistical Areas are based on urbanized areas of 50,000 or more population, and Micropolitan Statistical Areas are based on urban clusters of at least 10,000 population but less than 50,000 population. The largest incorporated place in each statistical area is designated a "principal city." Additional places may also qualify as principal cities if specific requirements are met. For more information about metropolitan statistical areas, refer to <www.census.gov/programs-surveys/metro-micro/about.html>.

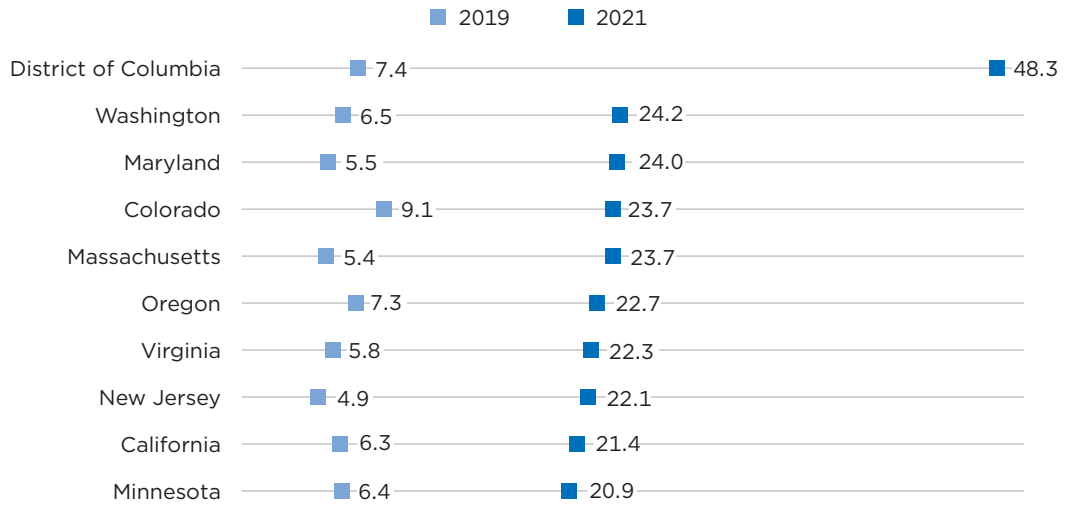
[22] Nicholas Bloom, "How Working from Home Works Out," SIEPR Policy Briefs, Stanford Institute for Economic and Policy Research, Stanford, CA, 2020.

[23] Lanu Kim, "Geographical Locations of Occupations and Information and Communication Technology: Do Online Tools Impact Where People in the United States Live and Work?," *SAGE Open*, July 2021, <https://doi.org/10.1177/21582440211037663>.

Figure 5.

Percentage of Home-Based Workers by Selected State or State Equivalent: 2019 and 2021

(Workers aged 16 and older living in the United States, excluding Puerto Rico. In percent)



Note: Refer to Appendix Table 4 for estimates and margins of error. For information on confidentiality protection, sampling error, nonsampling error, and definitions, refer to <www.census.gov/acs>.
Source: U.S. Census Bureau, 2019 and 2021 American Community Survey, 1-year estimates.

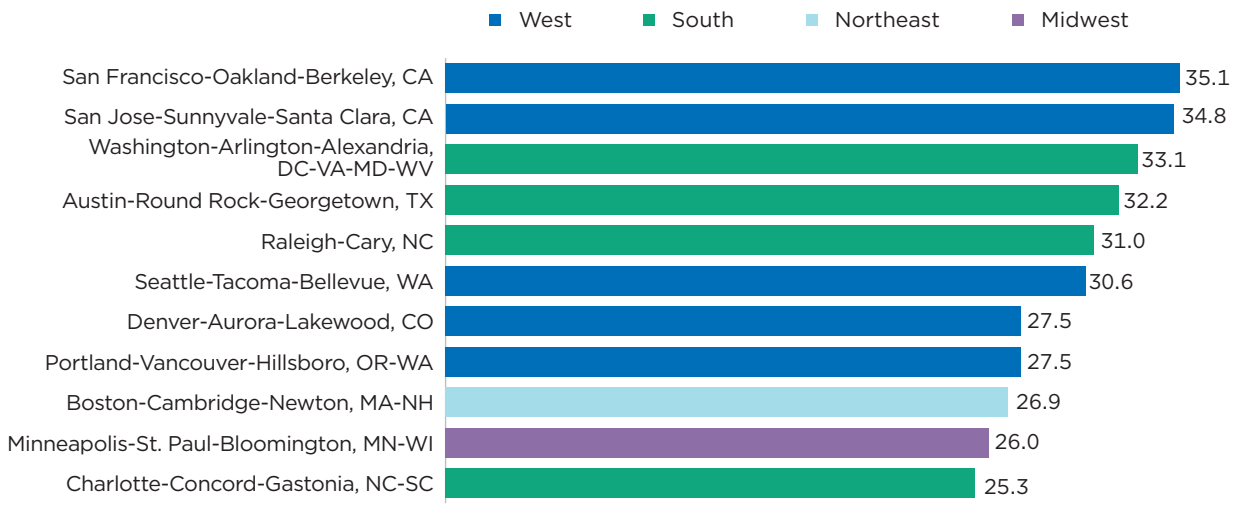
percentages of home-based workers in 2019 maintained relatively high percentages in 2021, though some notable changes occurred during this period (Figure 5 and Appendix Table 4). The District of Columbia moved far ahead of other U.S. states and state equivalents, increasing from 7.4 percent home-based workers in 2019 to 48.3 percent in 2021; thus, nearly half of workers residing in the District of Columbia worked from home in 2021. Colorado had the highest percentage of home-based workers in 2019 and remained among the highest with 23.7 percent in 2021. Other states among those with the highest percentages of home-based workers included Washington (24.2 percent), Maryland (24.0), Massachusetts (23.7), and Oregon (22.7). A few states and state equivalents notable for their relatively small increases included Louisiana (3.9 in 2019 to 8.4 percent in 2021), Mississippi (3.1 to 6.3 percent), Puerto Rico (2.4 percent to 7.4 percent), and Wyoming (5.7 to 8.9 percent).

Among metro areas with 1 million or more residents, the San Francisco and San Jose metros had the highest percentage of home-based workers in 2021 at around 35 percent, an increase from 7.2 and 4.8 percent, respectively (Appendix Table 5). Both metros are notable for their connection to the information and technology sectors. Within the Washington, DC metro, about one-third of workers worked from home in 2021 (33.1 percent), up from about 6.3 percent in 2019. The Austin and Raleigh-Cary metro areas each saw an increase from around 10 percent in 2019 to over 30 percent in 2021. Among all metro areas with 1 million or more residents, 11 had 25 percent or more home-based workers in 2021 (Figure 6). Of these 11 metro areas, 5 are situated in the West, 4 in the South, and 1 each in the Northeast and Midwest. Although the Northeast is home to a higher percentage of home-based workers (refer to Table 3), their concentration within metro areas in the South is evident through the South's prominence among metro areas where working from home is more common.

Figure 6.

Percentage of Home-Based Workers by Selected Metro Area: 2021

(Workers aged 16 and older living in the United States, excluding Puerto Rico. In percent)



Note: Refer to Appendix Table 5 for estimates and margins of error. For information on confidentiality protection, sampling error, nonsampling error, and definitions, refer to <www.census.gov/acs>.
Source: U.S. Census Bureau, 2021 American Community Survey, 1-year estimates.

CONCLUSION

During 2019, the year before the start of the COVID-19 pandemic in the United States, almost 9 million people worked from home. Over the next 2 years, the number of home-based workers more than tripled, even as the total number of workers declined in the face of the pandemic's sharp economic fallout.[24] The increase in home-based workers corresponded with a decline in drivers, carpoolers, transit riders, and most other types of commuters.

In terms of age and race, the home-based workforce during the pandemic more closely resembled the commuting workforce in 2021 than it did in 2019. Along other measures like sex and education, the composition of home-based workers during the pandemic differed from that of commuters. The prevalence of working from home in certain industries and occupations—especially the information industry and management, business, science and arts occupations—highlights the limitations for many workers who cannot perform their duties using a computer and an internet connection. Some of the implications of these industrial and occupational constraints are reflected through the high rates of working from home among the highest-earning workers. Commuting is generally accepted to come at some cost—fuel, vehicle maintenance and repair, tolls, transit tickets, taxi fare, and the like—and these commuting costs are disproportionately shouldered by lower-income workers.

Looking toward geography, in 2021, home-based workers were more likely than commuters to have moved in the past year—a notable reversal of the pre-pandemic relationship. This phenomenon undoubtedly contributed to some fluctuation in the geography of home-based work, but home-based work remains most common in certain geographies that host industries with well-publicized home-based work policies—such as the District of Columbia, with its high concentration of federal employees, and metro areas around Silicon Valley with its many information technology workers. In general, working from home was much more common in metro areas in 2021, compared to micro areas or communities outside metro or micro areas. Notably, most metro areas with the highest percentages of home-based workers in 2021 were in the

[24] "Tracking the COVID-19 Economy's Effects on Food, Housing, and Employment Hardships," February 10, 2022, Center on Budget and Policy Priorities, <www.cbpp.org/research/poverty-and-inequality/tracking-the-covid-19-economys-effects-on-food-housing-and>.

South and West regions (as was the case in 2019). Every type of community saw, on average, a large increase in the percentage of home-based workers, but the highest percentages were routinely reported in the principal cities of metro areas.

Most pandemic-related restrictions had been relaxed at time of publication, and it was far from certain that home-based work would continue at the same levels observed during 2021. If only temporarily, the COVID-19 pandemic generated a massive shift in the way people in the United States related to their workplace location. With the centrality of work and commuting in American life, the widespread adoption of home-based work was a defining feature of the pandemic era. Given the differential impact that home-based work policies have on American workers—in particular, accruing disproportionately to the best-educated and highest-paid workers—the expansion of home-based work also provides a new lens through which to observe inequalities. As the COVID-19 pandemic evolves and work routines continue to change, the ACS will remain a vital source of information about the commuting behaviors of workers in the United States.

MORE INFORMATION

For more information about commuting in the United States, refer to the Census Bureau's website on commuting at <www.census.gov/topics/employment/commuting.html>.

SOURCE AND ACCURACY OF THE ESTIMATES

The data presented in this report are based on the ACS samples interviewed from January 1, 2019, through December 31, 2019, and January 1, 2021, through December 31, 2021. The estimates based on these samples describe the actual average values of person, household, and housing unit characteristics over these periods of collection. Sampling error is the uncertainty 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 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 confidence level. 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, refer to the 2019 and 2021 ACS 1-year Accuracy of the Data documents at <www.census.gov/programs-surveys/acs/technical-documentation/code-lists.html>.

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Appendix Table 1.

Means of Transportation to Work: 2019 and 2021

(Workers 16 years and over living in the United States, excluding Puerto Rico. For information on confidentiality protection, sampling error, nonsampling error, and definitions, refer to <www.census.gov/acs>)

Means of transportation	2019				2021			
	Number	Margin of error	Percent	Margin of error	Number	Margin of error	Percent	Margin of error
Total	**156,941,346**	**161,399**	**100.0**	**0.1**	**154,314,179**	**151,398**	**100.0**	**0.1**
Car, truck, or van	133,054,328	173,377	84.8	0.1	116,668,475	149,726	75.6	0.1
Drove alone	119,153,349	145,368	75.9	0.1	104,650,121	137,202	67.8	0.1
Carpooled	13,900,979	82,351	8.9	0.1	12,018,354	70,749	7.8	0.1
Public transportation	7,778,444	42,450	5.0	0.1	3,793,329	36,923	2.5	0.1
Bus	3,601,403	34,897	2.3	0.1	1,971,235	29,462	1.3	0.1
Subway or elevated rail	2,935,633	29,091	1.9	0.1	1,400,185	21,845	0.9	0.1
Long-distance train or commuter rail	921,391	17,465	0.6	0.1	294,566	10,120	0.2	0.1
Light rail, streetcar or trolley	242,776	8,667	0.2	0.1	82,915	5,760	0.1	0.1
Ferryboat	77,241	5,055	0.0	0.1	44,428	4,309	0.0	0.1
Taxicab	385,756	13,467	0.2	0.1	296,457	11,839	0.2	0.1
Motorcycle	221,923	7,785	0.1	0.1	166,676	7,927	0.1	0.1
Bicycle or walked	4,958,772	50,498	3.2	0.1	4,015,558	38,836	2.6	0.1
Bicycle	805,722	19,868	0.5	0.1	616,153	16,425	0.4	0.1
Walked	4,153,050	43,355	2.6	0.1	3,399,405	37,071	2.2	0.1
Other means	1,571,323	27,465	1.0	0.1	1,805,586	31,124	1.2	0.1
Worked from home	8,970,800	53,611	5.7	0.1	27,568,098	105,493	17.9	0.1

Note: Percentages may not sum to 100 due to rounding.
Source: U.S. Census Bureau. 2019 and 2021 American Community Survey, 1-year estimates.

Appendix Table 2.

Percentage of Home-Based Workers by Industry and Occupation: 2019

(Workers aged 16 and over living in the United States, excluding Puerto Rico. For information on confidentiality protection, sampling error, nonsampling error, and definitions, refer to <www.census.gov/acs>)

Industry	Occupation													
	All occupations		Management, business, science and arts		Service		Sales and office		Natural resources, construction, maintenance		Production, transportation, material moving		Military	
	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)
All industries	**5.7**	**0.1**	**7.9**	**0.1**	**4.1**	**0.1**	**6.2**	**0.1**	**3.3**	**0.1**	**2.3**	**0.1**	**4.4**	**0.5**
Agriculture, forestry, fishing, hunting, mining	9.9	0.4	18.3	0.7	10.1	1.8	9.5	1.2	5.1	0.4	1.7	0.5	X	X
Construction	4.9	0.2	8.9	0.4	3.0	1.5	10.0	0.7	3.4	0.2	2.3	0.4	X	X
Manufacturing	3.5	0.1	5.8	0.2	1.2	0.3	7.0	0.3	1.5	0.2	1.6	0.1	X	X
Wholesale trade	6.8	0.2	8.7	0.6	3.4	1.5	9.5	0.4	1.8	0.5	1.4	0.3	X	X
Retail trade	3.6	0.1	6.1	0.3	1.8	0.3	3.9	0.1	2.1	0.3	1.5	0.1	X	X
Transportation, warehousing, utilities	3.8	0.1	5.4	0.3	2.1	0.6	4.0	0.2	1.5	0.3	3.7	0.2	X	X
Information	10.4	0.3	12.9	0.4	1.9	0.5	8.0	0.6	3.0	0.7	3.7	1.4	X	X
Finance, insurance, real estate	10.8	0.2	11.5	0.2	6.8	0.9	10.8	0.3	4.1	0.8	3.7	0.8	X	X
Professional, scientific, management, administrative	12.6	0.1	16.2	0.2	4.9	0.2	12.5	0.4	4.5	0.6	2.7	0.3	X	X
Educational services, health care, social assistance	4.1	0.1	3.6	0.1	6.1	0.2	3.4	0.2	1.4	0.4	2.3	0.3	X	X
Arts, entertainment, recreation, accommodation, food services	3.1	0.1	8.5	0.3	1.6	0.1	2.6	0.2	2.7	0.7	1.6	0.3	X	X
Other services (except public administration)	6.9	0.2	8.9	0.3	7.3	0.3	5.4	0.4	5.1	0.4	4.5	0.5	X	X
Public administration	3.0	0.1	3.2	0.2	3.6	0.2	2.2	0.3	1.5	0.4	2.0	0.5	X	X
Armed forces	3.2	0.3	1.8	0.5	2.3	1.0	1.3	1.0	1.5	0.4	4.0	1.3	4.4	0.5

X Not applicable.
Source: U.S. Census Bureau, 2019 American Community Survey, 1-year estimates.

Appendix Table 3.

Percentage of Home-Based Workers by Region and Community Type: 2019

(Workers aged 16 and over living in the United States, excluding Puerto Rico. For information on confidentiality protection, sampling error, nonsampling error, and definitions, refer to <www.census.gov/acs>)

Community type	United States		Region							
			Northeast		Midwest		South		West	
	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)	Percent	Margin of error (±)
All communities	**5.7**	**0.1**	**5.2**	**0.1**	**5.0**	**0.1**	**5.7**	**0.1**	**6.7**	**0.1**
Metropolitan area	5.8	0.1	5.2	0.1	5.1	0.1	6.0	0.1	6.6	0.1
In principal city	5.6	0.1	4.6	0.2	4.7	0.1	5.7	0.1	6.4	0.1
Remainder	6.0	0.1	5.4	0.1	5.3	0.1	6.2	0.1	6.8	0.1
Micropolitan area	4.6	0.1	5.1	0.3	4.2	0.2	3.8	0.2	7.1	0.4
In principal city	3.7	0.2	4.0	0.6	3.5	0.3	3.2	0.3	4.6	0.4
Remainder	5.1	0.2	5.4	0.3	4.6	0.2	4.0	0.2	8.5	0.5
Outside metropolitan or micropolitan area	5.2	0.1	6.4	0.5	5.8	0.2	3.7	0.1	8.3	0.5

Source: U.S. Census Bureau, 2019 American Community Survey, 1-year estimates.

Appendix Table 4.

Percentage of Home-Based Workers by State (or State Equivalent): 2019 and 2021

(Workers aged 16 and over living in the United States and Puerto Rico. For information on confidentiality protection, sampling error, nonsampling error, and definitions, refer to <www.census.gov/acs>)

State	2021 Population	2019		2021	
		Percent	Margin of error (±)	Percent	Margin of error (±)
Alabama	5,039,877	3.4	0.2	9.6	0.4
Alaska	732,673	4.3	0.5	10.3	0.9
Arizona	7,276,316	7.6	0.3	20.7	0.4
Arkansas	3,025,891	3.5	0.3	9.7	0.5
California	39,237,836	6.3	0.1	21.4	0.2
Colorado	5,812,069	9.1	0.3	23.7	0.5
Connecticut	3,605,597	5.6	0.3	19.5	0.5
Delaware	1,003,384	5.2	0.7	18.6	1.1
District of Columbia	670,050	7.4	0.8	48.3	1.7
Florida	21,781,128	7.0	0.2	16.6	0.3
Georgia	10,799,566	6.9	0.3	18.2	0.4
Hawaii	1,441,553	4.8	0.5	10.7	0.8
Idaho	1,900,923	7.4	0.6	13.3	0.6
Illinois	12,671,469	5.4	0.2	19.3	0.3
Indiana	6,805,985	4.3	0.2	11.9	0.3
Iowa	3,193,079	5.8	0.3	13.4	0.6
Kansas	2,934,582	5.1	0.3	13.8	0.5
Kentucky	4,509,394	4.3	0.3	11.5	0.5
Louisiana	4,624,047	3.9	0.3	8.4	0.4
Maine	1,372,247	6.3	0.5	17.7	0.8
Maryland	6,165,129	5.5	0.2	24.0	0.5
Massachusetts	6,984,723	5.4	0.2	23.7	0.4
Michigan	10,050,811	4.5	0.2	16.4	0.3
Minnesota	5,707,390	6.4	0.3	20.9	0.4
Mississippi	2,949,965	3.1	0.4	6.3	0.4
Missouri	6,168,187	5.1	0.2	14.7	0.5
Montana	1,104,271	6.5	0.5	14.0	0.9
Nebraska	1,963,692	4.6	0.4	12.8	0.5
Nevada	3,143,991	4.9	0.3	13.0	0.6
New Hampshire	1,388,992	7.3	0.6	19.3	0.9
New Jersey	9,267,130	4.9	0.2	22.1	0.3
New Mexico	2,115,877	5.1	0.4	15.2	0.8
New York	19,835,913	4.8	0.1	19.6	0.3
North Carolina	10,551,162	6.7	0.2	18.8	0.4
North Dakota	774,948	3.6	0.5	8.9	0.9
Ohio	11,780,017	4.6	0.2	14.8	0.3
Oklahoma	3,986,639	4.4	0.3	10.4	0.4
Oregon	4,246,155	7.3	0.3	22.7	0.6
Pennsylvania	12,964,056	5.4	0.2	18.7	0.3
Puerto Rico	3,263,584	2.4	0.3	7.4	0.6
Rhode Island	1,095,610	4.5	0.7	17.5	1.0
South Carolina	5,190,705	5.1	0.3	11.7	0.5
South Dakota	895,376	6.1	0.5	11.1	0.8
Tennessee	6,975,218	5.6	0.2	14.0	0.4
Texas	29,527,941	5.7	0.1	16.3	0.2
Utah	3,337,975	7.4	0.4	20.0	0.6
Vermont	645,570	7.0	0.6	19.6	1.1
Virginia	8,642,274	5.8	0.2	22.3	0.3
Washington	7,738,692	6.5	0.2	24.2	0.4
West Virginia	1,782,959	3.9	0.4	10.2	0.7
Wisconsin	5,895,908	5.1	0.2	14.8	0.3
Wyoming	578,803	5.7	0.9	8.9	1.0

Source: U.S. Census Bureau, 2021 Population Estimates, 2019 and 2021 American Community Survey, 1-year estimates.

Appendix Table 5.

Percentage of Home-Based Workers by Metro Area With Population of 1 Million or More: 2019 and 2021

(Workers aged 16 and over living in the United States and Puerto Rico. For information on confidentiality protection, sampling error, nonsampling error, and definitions, refer to <www.census.gov/acs)

Metro	2021 Population	2019		2021	
		Percent	Margin of error (±)	Percent	Margin of error (±)
Atlanta-Sandy Springs-Alpharetta, GA	6,144,050	8.8	0.4	24.2	0.6
Austin-Round Rock-Georgetown, TX	2,352,426	10.5	0.6	32.2	1.0
Baltimore-Columbia-Towson, MD	2,838,327	5.5	0.3	22.2	0.6
Birmingham-Hoover, AL	1,114,262	4.0	0.5	13.7	1.2
Boston-Cambridge-Newton, MA-NH	4,899,932	5.6	0.3	26.9	0.5
Buffalo-Cheektowaga, NY	1,162,336	3.5	0.4	14.3	0.8
Charlotte-Concord-Gastonia, NC-SC	2,701,046	8.0	0.4	25.3	0.8
Chicago-Naperville-Elgin, IL-IN-WI	9,509,934	5.7	0.2	21.5	0.3
Cincinnati, OH-KY-IN	2,259,935	5.4	0.4	17.1	0.7
Cleveland-Elyria, OH	2,075,662	4.8	0.3	16.5	0.6
Columbus, OH	2,151,017	5.4	0.4	23.0	0.8
Dallas-Fort Worth-Arlington, TX	7,759,615	6.6	0.3	20.7	0.4
Denver-Aurora-Lakewood, CO	2,972,566	9.1	0.4	27.5	0.6
Detroit-Warren-Dearborn, MI	4,365,205	4.4	0.2	19.8	0.4
Fresno, CA	1,013,581	5.4	0.6	11.2	1.0
Grand Rapids-Kentwood, MI	1,091,620	4.8	0.5	13.9	0.9
Hartford-East Hartford-Middletown, CT	1,211,906	5.3	0.6	20.3	1.0
Houston-The Woodlands-Sugar Land, TX	7,206,841	5.1	0.3	15.5	0.6
Indianapolis-Carmel-Anderson, IN	2,126,804	5.7	0.4	17.7	0.8
Jacksonville, FL	1,637,666	7.5	0.7	17.9	1.0
Kansas City, MO-KS	2,199,490	6.4	0.4	20.0	0.6
Las Vegas-Henderson-Paradise, NV	2,292,476	4.7	0.4	13.3	0.7
Los Angeles-Long Beach-Anaheim, CA	12,997,353	6.3	0.2	21.2	0.3
Louisville/Jefferson County, KY-IN	1,284,566	5.1	0.5	15.4	0.8
Memphis, TN-MS-AR	1,336,103	3.6	0.5	11.7	0.9
Miami-Fort Lauderdale-Pompano Beach, FL	6,091,747	6.3	0.3	16.1	0.5
Milwaukee-Waukesha, WI	1,566,487	4.7	0.4	17.9	0.7
Minneapolis-St. Paul-Bloomington, MN-WI	3,690,512	6.5	0.3	26.0	0.6
Nashville-Davidson--Murfreesboro--Franklin, TN	2,012,476	7.8	0.4	20.6	0.8
New Orleans-Metairie, LA	1,261,726	5.4	0.6	12.2	0.9
New York-Newark-Jersey City, NY-NJ-PA	19,768,458	4.8	0.1	22.8	0.3
Oklahoma City, OK	1,441,647	4.4	0.5	12.3	0.8
Orlando-Kissimmee-Sanford, FL	2,691,925	7.0	0.5	19.0	0.7
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	6,228,601	5.9	0.2	23.6	0.5
Phoenix-Mesa-Chandler, AZ	4,946,145	7.9	0.4	23.4	0.5
Pittsburgh, PA	2,353,538	5.8	0.3	21.1	0.6
Portland-Vancouver-Hillsboro, OR-WA	2,511,612	8.0	0.4	27.5	0.9
Providence-Warwick, RI-MA	1,675,774	4.0	0.5	15.8	0.8
Raleigh-Cary, NC	1,448,411	10.2	0.8	31.0	1.2
Richmond, VA	1,324,062	5.8	0.6	23.0	0.9
Riverside-San Bernardino-Ontario, CA	4,653,105	5.9	0.4	13.6	0.5
Rochester, NY	1,084,973	4.6	0.4	15.3	0.9
Sacramento-Roseville-Folsom, CA	2,411,428	7.8	0.5	23.3	0.8
Salt Lake City, UT	1,263,061	6.5	0.6	22.9	1.0
San Antonio-New Braunfels, TX	2,601,788	4.8	0.4	15.8	0.8
San Diego-Chula Vista-Carlsbad, CA	3,286,069	7.5	0.4	22.1	0.6
San Francisco-Oakland-Berkeley, CA	4,623,264	7.2	0.3	35.1	0.6
San Jose-Sunnyvale-Santa Clara, CA	1,952,185	4.8	0.4	34.8	0.9
San Juan-Bayamón-Caguas, PR	2,068,451	2.1	0.3	8.1	0.7
Seattle-Tacoma-Bellevue, WA	4,011,553	6.5	0.3	30.6	0.7
St. Louis, MO-IL	2,809,299	5.1	0.3	18.7	0.7
Tampa-St. Petersburg-Clearwater, FL	3,219,514	8.6	0.4	21.2	0.7
Tucson, AZ	1,052,030	6.9	0.7	17.9	1.2
Tulsa, OK	1,023,988	4.4	0.3	12.5	0.6
Urban Honolulu, HI	1,000,890	3.9	0.5	10.9	0.8
Virginia Beach-Norfolk-Newport News, VA-NC	1,803,328	4.5	0.4	13.8	0.7
Washington-Arlington-Alexandria, DC-VA-MD-WV	6,356,434	6.3	0.2	33.1	0.5

Source: U.S. Census Bureau, 2021 Population Estimates, 2019 and 2021 American Community Survey, 1-year estimates.