

2022

# STATE OF THE COMMUTE “AT-A-GLANCE” SURVEY SECTION

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WASHINGTON DC  
METROPOLITAN  
REGION

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COMMUTE PATTERNS



THIS IS AN “AT-A-GLANCE” SECTION FROM THE 2022 STATE OF THE COMMUTE (SOC) REPORT SHOWING KEY FIGURES AND TABLES FOR COMMUTE PATTERNS. TO VIEW THE FULL REPORT, GO TO [WWW.COMMUTERCONNECTIONS.ORG](http://WWW.COMMUTERCONNECTIONS.ORG).

## COMMUTE PATTERNS

The SOC survey inquired about respondents weekly commute patterns. Commute questions in the survey included:

- Number of days worked per week, work schedules, and work location
- Current commute mode
- Length of commute
- Alternative mode characteristics

A primary objective of the SOC survey is to document trends in regional commute trip patterns. These data were obtained in the 2022 survey and in past surveys by asking respondents about their commute “in a typical week” at the time of the survey. These results could be analyzed for sub-groups of workers, compared with previous survey data to define commute trends, and through additional analysis, examine awareness and opinions of commuters who use different commute modes.

This straightforward approach to collecting and reporting commute data was complicated in 2022 by the coronavirus pandemic. Pandemic stay-at-home directives were implemented in March 2020, disrupting typical commutes for many workers. Many employees shifted to working remotely, some changed jobs, and some workers who commuted changed their commute mode.<sup>2</sup>

In the early months of the pandemic, workplace and commuting adjustments were anticipated to be temporary. However, as the pandemic continued into 2021 and, to a lesser but still notable extent, into 2022, it became clear that work and commuting patterns remained unsettled. For this reason, questions were added to the 2022 questionnaire to examine commute patterns at the time of the survey and in February 2020, just prior to the start of the pandemic. Several new questions were added to examine telework/work from home experience. Additionally, the wording of some existing questions was modified to be relevant both to workers who were working from home and those who were traveling to outside workplaces. These question modifications are described to assist readers to interpret changes in reported travel patterns between 2019 and 2022.

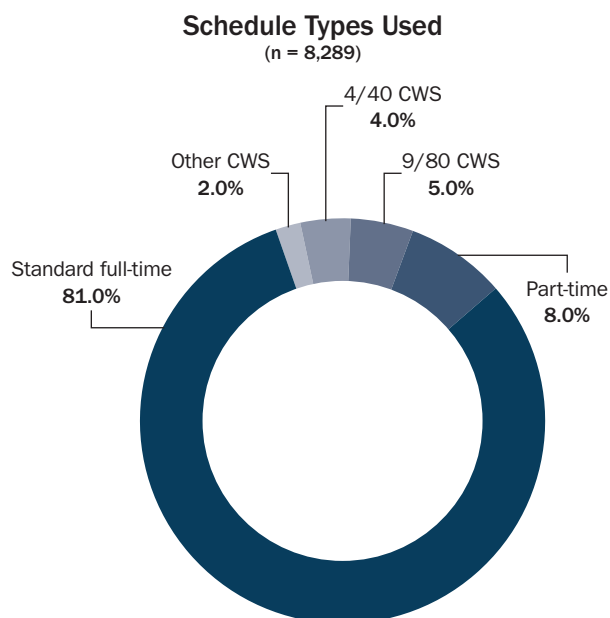
<sup>2</sup> MWCOCG, Commuter Connections, 2020 Employer Telework Survey, June 30, 2020. VDOT Virginia Commuter Survey, July 2020; <https://www.virginiadot.org/travel/commuter-survey.asp>.

## Number of Days Worked Per Week and Work Schedules

### WORKDAYS AND NON-STANDARD WORK SCHEDULES

Eight in ten (81%) respondents worked five weekdays (Monday through Friday) per week. Seven percent worked four weekdays, 6% worked three weekdays, and 5% worked one or two weekdays. A very small share (1%) of respondents worked all their work days on weekends. On average, respondents were assigned to work 4.6 weekdays per week. The average was less than five days per week because some respondents worked part-time and some worked one or more of their work days on the weekend.

Eight in ten (81%) respondents worked a “standard” full-time schedule, defined as five or more days per week. Eight percent worked part-time and 11% worked a compressed work schedule (CWS), in which they worked a full-time week in fewer than five days per week. Five percent worked a 9/80 schedule (80 hours over nine days in two weeks), 4% worked a 4/40 schedule, with four 10-hour days per week, and 2% worked another compressed schedule. The share of respondents who worked a compressed schedule in 2022 was about the same as the 12% who reported compressed schedules in 2019.



## AVAILABILITY OF FLEXIBLE WORK SCHEDULES

Some employers also permit employees to work a “flexible” work schedule, in which they can choose their work start and end times, so long as they meet a minimum number of weekly or daily work hours. About half (51%) of commuters said their employers offered some work schedule flexibility and 78% of respondents who had access to a flexible schedule had used it, about the same as the 81% who used flexible schedules in 2019.

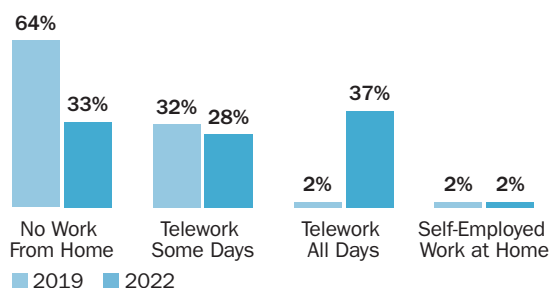
## Work From Home

Because it was anticipated that many respondents could be working remotely, in response to the coronavirus pandemic, respondents were asked if they worked from home any of their workdays at the time of the survey. Two-thirds of all workers said they worked from home at least occasionally: the next figure shows 28% worked from home some of their days and four in ten worked from home all their workdays (37% full-time telework and 2% self-employed work at home). The remaining 33% did not work from home any workdays; they traveled to an outside work location every day they worked.

Thirty-seven percent of 2022 respondents worked for an outside employer and teleworked all their workdays. This 37% share of full-time telework was a dramatic departure from the 2019 survey, in which only 2% of workers teleworked full-time; without doubt much of, if not all, the increase was an outcome of the coronavirus pandemic. Most full-time teleworkers worked for an employer located in the Washington metropolitan region, but in 2022, about one in ten (13%) worked remotely for an employer located outside the region. Full-time teleworkers were excluded from questions about commute travel, but were asked telework follow-up questions. Respondents who worked from home some workdays also were asked telework questions as well as questions about their commute on the days they worked outside their homes.

### Work From Home/Telework – 2019 and 2022

(2019 n = 8,219, 2022 n = 8,312)



## Current Commute Mode

Respondents who did not telework/work from home full-time were asked what modes they used to travel to work Monday through Friday during a typical work week. By asking about an entire week, rather than simply “usual” travel mode, the survey captures use of modes that are used just one or two days per week.

### WEEKLY WORK DAYS BY MODE IN 2022

The next figure presents mode shares as a percentage of commuters’ weekly work days for six “on the road” travel mode groups: drive alone, carpool/vanpool, train, bus, bike/scooter/walk, and taxi/ridehail. The figure also includes the mode share for compressed work schedule and telework. These are not actually travel modes but are included to show the percentage of weekly work trips eliminated through use of these options.

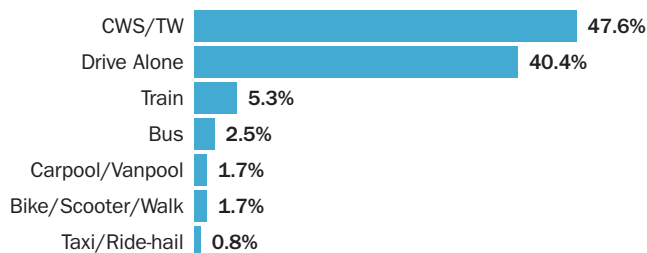
Commuters drove alone to work for 40.4% of their total work days. They rode on a train for 5.3% of work days and used a bus for 2.5% of work days. Respondents carpooled or vanpooled to work for 1.7% of work days and bicycled, rode a scooter, or walked for 1.7%.

About 0.8% of weekly commute trips were made by riding as a passenger in a taxi or ridehail vehicle. In surveys before 2019, use of taxi/ridehail was reported within the drive-alone mode group. While they are still considered “driving alone” for purposes of vehicle use, they do not eliminate a drive alone work trip.

Compressed work schedule days off and telework (TW) days eliminated nearly half (47.6%) of weekly work trips. As noted earlier, two-thirds of all workers said they were teleworking/working from home at least some of their workdays and more than one-third were teleworking full-time at the time of the survey. These days are officially assigned as part of the work week and commuters would make a trip if they did not use these work arrangements.

### Weekly Commute Trips by Modes – 2022

(n = 8,114)



If telework and CWS days off were excluded, to estimate the “on the road” mode share of commute trips made to outside work locations, the percentage use of each of the travel modes would be higher. Without telework and CWS, the drive alone share would rise to 77.0% of weekly commute trips. Excluding telework and CWS, the weekly commute trip distribution for all travel modes would be:

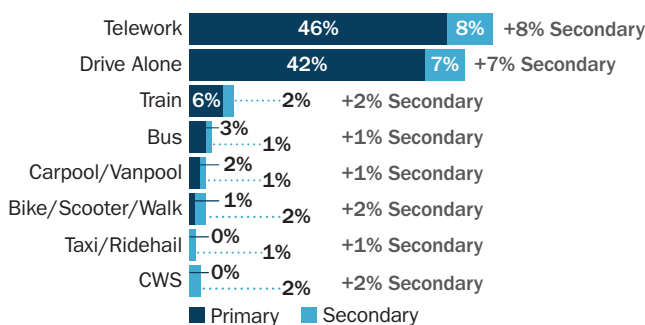
- Drive alone (including motorcycle) 77.0%
- Train 10.2%
- Bus 4.8%
- Carpool/vanpool 3.3%
- Bike/scooter/walk 3.3%
- Taxi/Ridehail 1.4%

## FREQUENCY OF CURRENT MODE USE

**Primary Mode** – Mode split also can be portrayed as the percentage of respondents who use each mode. The next figure presents the percentage of respondents who used a mode as their “primary” mode, defined as the mode used the greatest number of days per week. Most respondents worked five weekdays per week, so primary mode generally equated to use three or more days per week. For a small percentage of respondents who worked fewer than five weekdays or who used more than two modes, the primary mode could be used just two days per week.

As with mode split by weekly trips, telework was the most common primary mode; nearly half (46%) of respondents reported this as the mode they used most of their workdays. The second most common primary mode, used by 42% of respondents, was driving alone. Six percent said they primarily rode a train, 3% rode a bus, and 2% carpooled or vanpooled. One percent of respondents primarily biked, rode a scooter, or walked. Less than 1% primarily rode in a taxi or ridehail vehicle. No commuters worked a primary compressed work schedule, but that is because those schedules eliminate at most two of the regular work days, so commuters would have at least one other mode during the week.

**Primary Modes and Secondary Modes**  
(n = 8,114)



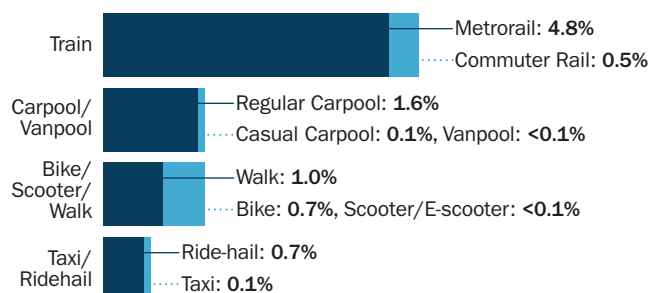
**Secondary Modes** – The figure also shows the percentages of respondents who used a mode as a secondary mode, meaning they used it one or two days per week, in addition to their primary mode. The top two primary modes also had the greatest secondary use. Eight percent of respondents teleworked one or two days per week and 7% drove alone as a secondary mode. Two modes, train and bike/walk/scooter, each was used by 2% of respondents as a secondary mode. Two percent had a compressed schedule day off one or two days per week or one day off every two weeks. The remaining three modes each was used by just 1% of respondents as a secondary mode.

In most cases, the percentage of respondents who used a mode as their primary mode was higher than the percentage of total work days on which commuters used that mode. For example, 49% of respondents primarily drove alone to work but only 40.4% of weekly work trips were made by this mode. The difference was largely due to the incidence of telework and CWS as secondary schedules.

## MODE USE WITHIN MODE GROUPS

The mode groupings shown are comprised of several related individual modes. The large sample size of the 2022 survey enables some analysis not only of grouped modes, but also of individual modes. The next figure shows the relative use of individual modes within the four main combined mode groups: train, carpool/vanpool, bike/scooter/walk, and taxi/ridehail.

**Composition of Combined Mode Groupings**  
– Percentage of Weekly Commute Trips  
(n = 8,114)



Note: scale extends only to 8% to highlight mode group composition.

**Train** – The train mode group was comprised of Metrorail and three commuter rail companies: MARC (Maryland commuter rail), VRE (Virginia Railway Express), and Amtrak. Metrorail dominated this category, with nine in ten train riders using this mode (4.8% of total 5.3% train ridership). The balance of train ridership was in commuter rail (0.5% of total train use).

**Carpool/Vanpool** – Regular carpooling dominated the carpool/vanpool mode group. Nearly all carpool/vanpool trips were in regular carpools (1.6% of total 1.7% carpool/vanpool use). Casual carpools (also called “slugs”) accounted for about one in twenty of the total trips in the carpool/vanpool group (0.1% of total 1.7%).<sup>3</sup> Vanpool trips accounted for very few trips in this mode group (< 0.1% of 1.7%).

**Taxi/Ridehail** – Within the taxi/ridehail group, ridehail was by far the more common mode. About nine in ten of the taxi/ridehail mode group trips were made in Uber, Lyft, or another ridehail services (0.7% of the total 0.8%). Traditional taxi accounted for just one in ten trips in this group (0.1% of 0.8%).

Ridehail services have been operating in the region for several years and even with travel disruptions during the coronavirus pandemic some commuters appear to use ridehail for commuting. The 71 respondents who used ridehail to get to work during their typical week were asked which ridehail services they had used. Note that respondents were permitted to check more than one type of transportation, so the total will add to more than 100%. Uber and Lyft (riding alone as a passenger) were reported by a similar share of respondents; 76% used Uber for commuting and 70% used Lyft.

Six respondents (9%) said they used a shared-ride ridehail service, in which they rode with another passenger; three had used Lyft Shared Ride or Lyft XL and four used UberPool or Uber Express Pool. Because shared-ride ridehail groups could be considered carpools, respondents who used these services were asked how many riders, excluding the driver, typically rode in the vehicle, but the sample of six respondents was too small for reliable analysis.



Ridehail users also were asked how they would have made these commute trips if ridehail service had not been available. About one-third said they would have driven in a personal vehicle (19%) or ridden in a taxi (16%). But seven in ten (70%) said transit would have been a likely option, 28% likely would have walked, and 16% likely would have bicycled; this suggests some ridehail trips create a vehicle trip that would not have occurred in the absence of the ridehail service.

MODE USED IF RIDEHAIL NOT AVAILABLE	PERCENTAGE OF RIDEHAIL RESPONDENTS (N = 67)
• Drive alone in personal vehicle	19%
• Taxi	16%
• Public transit (train, bus)	70%
• Walk	28%
• Bike	16%
• Carpool/casual carpool	7%

**Bike/Scooter/Walk** – Walking and biking were about equally represented in the bike/scooter/walk mode group. Walking accounted for 1.0% of the total 1.7% trips in this group and 0.7% were made by bicycle. A very small share, less than 0.1%, of these trips were made by scooter or E-scooter.

In recent years, numerous shared-bike and shared-scooter options have been introduced in the Washington metropolitan region. Commuters who reported one or more days of bike/scooter use were asked what type(s) of bike/scooter they used. This distribution is shown below. Respondents were permitted to check more than one bike/scooter type, so the total will add to more than 100%:

BIKE/SCOOTER TYPE	PERCENTAGE OF BIKE/SCOOTER RESPONDENTS (N = 153)
• Personal bike	81%
• Capital Bikeshare bike	18%
• Dockless bike	3%
• Rented scooter/E-scooter	8%
• Personal scooter/E-scooter	7%

<sup>3</sup> Casual carpooling is ridesharing without any prearrangement between the driver and riders. During commute hours, riders and drivers line up at predetermined meeting points and create spontaneous, single-trip carpools.





Commuters who reported using a bike or scooter overwhelmingly rode personal bikes for their commute; 81% said they rode a personal bike on some or all their bike/scooter commute days. About two in ten used a rented bike, either a Capital Bikeshare bicycle (18%) or a dockless bike (3%). About one in ten bike/scooter commuters typically used either a rented scooter (8%) or a personal scooter (7%).

Use of both personal bikes and rented bikes and scooters was strongly related to respondent characteristics. 100% worked in the Core area, and 68% traveled less than five miles to work (Table 5). Rented bike/scooter users also were predominantly young (76% under 45 years old), male (59%), and higher income (61% with household income of \$160,000 or more). Commuters who used personal bikes/scooters followed a generally similar profile for income and gender, but they were less likely to be as young. They also traveled somewhat farther to work and were less likely to be concentrated in the Core area.

#### Predominant Characteristics of Commuters Who Used Rented and Personal Bikes/Scooters

RESPONDENT CHARACTERISTIC	RENTED (N = 41)	PERSONAL (N = 135)
Lived in Core area	97%	59%
Worked in Core area	100%	66%
Travel distance less than 5 miles	68%	57%
Age under 45 years old	76%	58%
Income \$160,000 or more	61%	61%
Male	59%	65%

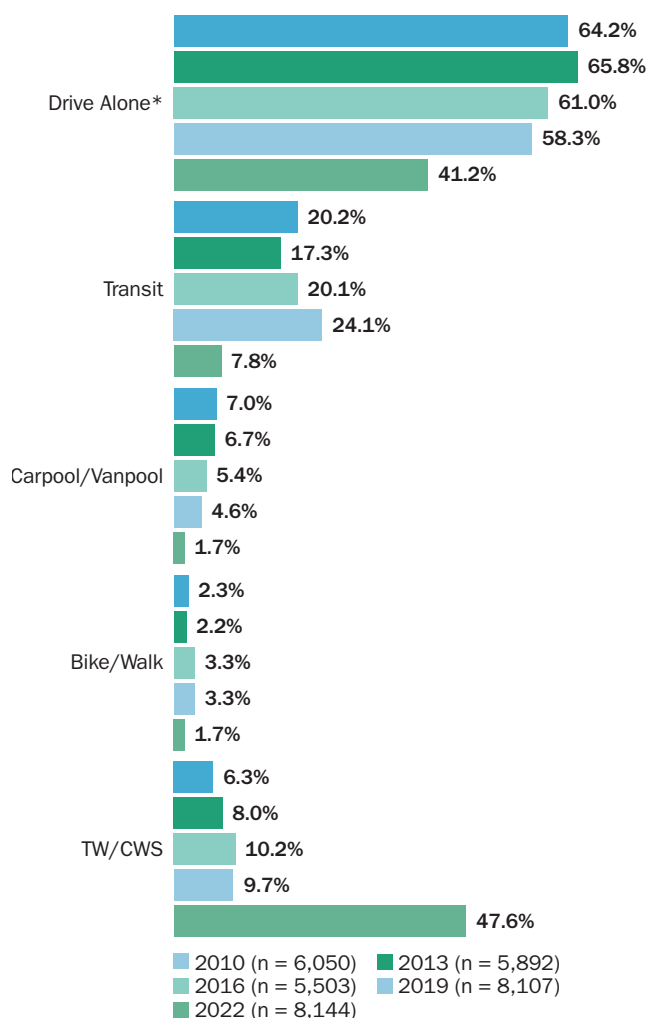
#### WEEKLY TRIPS BY MODE – TRENDS FROM 2010 TO 2022

The next figure presents weekly commute trip mode use for 2022 and four previous surveys. The share of drive alone trips in 2022 (41.2%) was by far the lowest of all surveys since 2010 and 17.1 percentage points lower

than in 2019. As evidenced by the 37.9 percentage point increase in telework's share of commute days/trips in 2022, however, the drive alone trips eliminated were overwhelmingly shifted to telework, rather than to other travel modes. Driving alone exhibited a declining pattern also between 2013 and 2019, with trips shifted both to transit and telework. Commute trips in each non-drive alone travel mode other than telework also dropped from 2019 to 2022, with transit losing 16.3 percentage points from 24.1% in 2019 to 7.8% in 2022. Commute use of carpool/vanpool and bike/walk also fell between 2019 and 2022. All 2019-2022 mode differences were statistically significant.

#### Percentage of Weekly Trips by Mode – 2010 to 2022

(Including telework and compressed schedules)



\*Note: taxi/ridehail was reported as part of "drive alone" in the 2010–2016 surveys. For consistency, "drive alone" percentages shown for 2019 and 2022 follow the same approach. In 2022, taxi/ridehail accounted for 0.8% of the total 41.2% drive alone.

### Change in Mode Use from 2019 to 2022, Excluding

**Telework** – The overwhelming change in telework mode share between 2019 and 2022 obscures shifts in use of other modes. If telework/CWS are excluded from both the 2022 and 2019 mode distributions, a clearer pattern of shifting mode use emerges for commute trips to outside work locations. The table below presents percentages of weekly commute trips by mode for 2019 and 2022 and the percentage point changes for each mode.

#### Change in Percentage of Weekly Commute Trips by Mode, Excluding Telework – 2019 to 2022

(2019 n = 8,107, 2022 n = 8,144)

COMMUTE MODE (EXCLUDING TW/CWS)	2019 SOC	2022 SOC	CHANGE (PERCENTAGE POINTS)
<b>GAINED MODE SHARE</b>			
Drive alone (incl. taxi/ridehail)	64.6%	78.4%	+ 13.8
<b>LOST MODE SHARE</b>			
Train	20.2%	10.2%	- 10.0
Carpool/vanpool	5.1%	3.3%	- 1.8
Bus	6.5%	4.8%	- 1.7
<b>NO STATISTICAL CHANGE</b>			
Bike/scooter/walk	3.6%	3.3%	- 0.3

While the previous figure showed that driving alone declined as a share of all commute days, driving alone increased as a share of trips for days workers traveled to outside work locations. When telework is excluded, workers drove alone for 78.4% of work trips in 2022, 13.8 percentage points more than in 2019 (64.6%). Transit and carpool/vanpool both lost mode share; train use fell 10.0 percentage points from 20.2% to 10.2%, carpool/vanpool and bus dropped 1.8 and 1.7 percentage points, respectively.

Some of the loss in alternative mode use is explained by shifts to telework. Thirty-seven percent of respondents who primarily teleworked at the time of the survey said they commuted by transit or rideshare most days pre-pandemic, compared with only 22% of respondents who were traveling to outside work locations most days in early 2022. The 2019 percentages include these pre-pandemic alternative mode trips, while they are missing from the 2022 percentages. Alternative mode loss also is due to some commuters who shifted away from shared modes to driving alone, perhaps to minimize their interactions with other people to avoid contracting COVID-19; 8% of 2022 respondents who were driving

alone in 2022 said they primarily used alternative modes pre-pandemic.

### Commute Changes Related to Coronavirus Pandemic and Pre-pandemic Mode

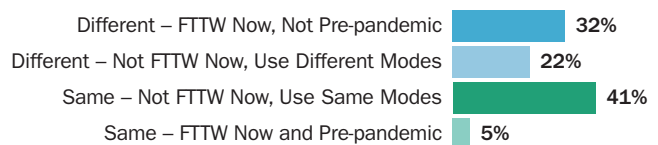
The 2022 survey added questions to examine other changes workers made that could have altered their commute. Respondents were asked a general question; “Is your current travel to work as you just described it about the same as your commute before the coronavirus pandemic began or is it different than before the pandemic?” They were then asked to indicate if they had made any work or commute changes. Finally, they were asked what commute modes they used one or more days per week and which of those modes they had used most of their work days (primary mode) in early 2020.

#### COMMUTE SAME AS OR DIFFERENT THAN BEFORE PANDEMIC

Given the large increase in use of telework and declines in use of other travel modes in 2022, it is not surprising that 54% of respondents reported that their commute was different at the time of the survey (January-March 2022) than it had been before the coronavirus pandemic (February 2020).

#### Current Commute (Early 2022) Same or Different than Pre-pandemic (Early 2020)

(n = 7,952)



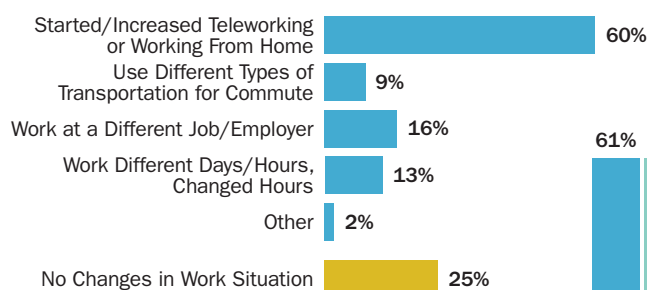
One-third (32%) of all respondents said their commute had changed because they were full-time teleworking (FTTW) now and had not been doing so before the pandemic. About two in ten (22%) respondents said they were not currently teleworking all their workdays but their commute was different because they were using a different mix of commute options. The remaining 46% of respondents said their commute was essentially the same; 41% were using the same commute option mix as before the pandemic and 5% had been teleworking full-time before the pandemic and still were doing so.

**Commute and Work Situation Changes Since the Start of the Pandemic** – Both respondents who said their commutes were the same and those who said they were different were asked a follow-up question to explore various work situations or commute components that might have changed. Overall, three-quarters of respondents reported at least one of the changes shown in the figure below.

Six in ten (60%) respondents either started teleworking or increased the number of days per week that they teleworked. One in ten (9%) said they started using different types of transportation to get to work on days they traveled to an outside work location. About three in ten made a work situation change, such as changing jobs or employers (16%) or a change in their work days or hours (13%). Two percent said their commute had changed for some other reason.

Respondents whose commutes were different because they shifted to FTTW contributed to the telework growth shown. But some telework growth between 2019 and 2022 was from workers who were still commuting to an outside work location at least some workdays and were working from home some days. Across all workers who reported a different commute than before the pandemic, 88% said starting or increasing telework was part of their commute change.

**Commute and Work Situation Changes Since Start of Pandemic**  
(n = 7,745; multiple responses permitted)



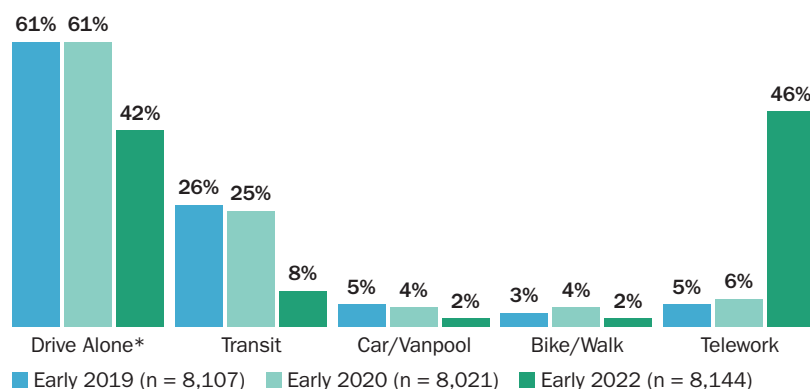
## PRIMARY COMMUTE MODE IN 2022 COMPARED WITH EARLY 2020, PRE-PANDEMIC

Substantial commute mode shifts occurred between 2019 and 2022. The 2019 survey was conducted just one year before the start of the pandemic and it is reasonable to expect that commute patterns would not have changed dramatically over the next year. However, to test this assumption, respondents in the 2022 survey were asked what modes they had used to get to work in early 2020, just before the pandemic began.

They first were asked to select all modes that they used at least one day per week, then to indicate the single type of transportation that they used most days for their commute, their primary mode. For consistency with other mode questions in the survey, respondents who typically used more than one mode on a single day were instructed to choose the mode they used for the longest distance part of their trip. The middle bar of each mode in the figure below shows the results for primary mode in early 2020, and immediate pre-pandemic period. Also shown are the distributions of primary mode from the 2019 survey and for the 2022 survey, in early 2022.

As is evident, the mode distribution in early 2020 was essentially the same as that observed in the 2019 survey. The mode changes observed between 2019 and 2022 can be largely, or perhaps entirely, attributed to the influence of the pandemic rather than other factors.

**Primary Mode (Mode Used Most Days per Week) – 2019, 2020, and 2022**



\*Note: "Drive alone" includes taxi/ridehail.



## COMMUTE CHANGES BY RESPONDENT CHARACTERISTICS

### Pre-pandemic Commute Mode –

Further analysis of the new questions on commute change revealed that some groups of respondents were more likely than others to have reported a change in their commute. A particularly important finding was that respondents who had been commuting by public transit, carpool/vanpool, and or bike/walk reported commute changes at a much higher rate than did commuters who primarily drove alone prior to the pandemic.



### Current Commute Same or Different than Pre-pandemic – By Pre-pandemic Primary Mode

PRE-PANDEMIC PRIMARY MODE	COMMUTE SAME AS PRE-PANDEMIC	COMMUTE DIFFERENT THAN PRE-PANDEMIC		
		DIFFERENT (TOTAL)	NOW FULL-TIME TELEWORK	USE DIFFERENT MIX OF MODES
Train (n = 1,473)	20%	80%	55%	26%
Bus (n = 552)	26%	74%	42%	31%
Carpool/vanpool (n = 228)	32%	68%	39%	29%
Bike/walk (n = 407)	40%	60%	43%	17%
Drive alone (n = 4,759)	53%	47%	25%	22%
Telework (n = 439)	89%	11%	9%	2%

### Comparison of Current Primary Mode with

**Pre-pandemic Primary Mode –** The table below compares the primary modes that respondents were using at the time of the survey (current mode) with the modes they used pre-pandemic (early 2020). The percentages in each row will add to 100%.

## Primary Commute Mode by Geographic and Demographic Group

Following are tables and figures examining primary mode distribution by respondents' home and work location and demographic characteristics: gender, race/ethnicity, age, income, and vehicle availability. Any of these characteristics, and indeed many other factors, might be related to or influence commuters' mode choice and relationships observed in each individual case should be viewed as mode associations, rather than independent or causal relationships. Because the 2022 mode distribution

was so strongly skewed toward telework and the figures were designed to highlight sub-group differences, the results for both the 2022 period (current) and the 2019 survey show the share of respondents who teleworked, then the distribution of primary mode when telework is excluded. The discussion for each table and figure describes notable differences from the 2019 case.

### Current Primary Commute Mode by Pre-pandemic (Early 2020) Primary Commute Mode

PRE-PANDEMIC PRIMARY MODE (EARLY 2020)	CURRENT PRIMARY COMMUTE MODE (EARLY 2022)					
	TELEWORK	DRIVE ALONE	CARPOOL/VANPOOL	BUS	TRAIN	BIKE/WALK
<b>All respondents (N = 8,126)</b>	45%	42%	2%	3%	6%	2%
Drive alone (n = 4,874)	34%	62%	1%	1%	1%	1%
Carpool/vanpool (n = 231)	50%	16%	32%	1%	1%	0%
Bus (n = 556)	50%	14%	2%	28%	4%	2%
Train (n = 1,495)	63%	10%	1%	2%	23%	1%
Bike/walk (n = 413)	55%	10%	2%	1%	4%	28%
Telework (n = 442)	97%	3%	0%	0%	0%	0%

## RESIDENCE AND EMPLOYMENT LOCATION

**Residence State –** Each line of the table below shows the share of commuters in the sub-group who primarily teleworked. The last four columns of the table show the primary mode distribution with primary telework excluded. This provides a clearer comparison between 2022 and 2019 of modal distributions for travel to workplaces outside the home.

### Primary Mode by State of Residence – 2022 and 2019

(Shading indicates statistically higher percentages of mode use)

RESIDENCE STATE	TELEWORK	PRIMARY COMMUTE MODE (EXCLUDING TELEWORK*)			
		DRIVE ALONE	CARPPOOL/ VANPOOL	TRANSIT	BIKE/ WALK
CURRENT (2022 SOC)					
District of Columbia (n = 956)	55%	41%	2%	41%	16%
Maryland (n = 3,434)	42%	84%	2%	13%	1%
Virginia (n = 3,750)	46%	80%	5%	12%	3%
PRE-PANDEMIC (2019 SOC)					
District of Columbia (n = 735)	3%	32%	2%	49%	17%
Maryland (n = 3,828)	7%	69%	4%	26%	1%
Virginia (n = 3,544)	4%	68%	8%	22%	2%

\*Note: distribution of Drive alone, Car/vanpool, Transit, Bike/walk equals 100%; it excludes Primary Telework.

The bottom section of the table displays mode use patterns in 2019. The major difference between 2019 and 2022 is the overall share of telework, which was a very small component of primary mode in 2019. When telework is excluded, however, the relative use of modes in 2022 was essentially the same as in 2019.

**Employment State** – The table in the next column displays primary mode distributions by respondents' employment state. Respondents who were FTTW at the time of the survey were asked to report where they would be working if they were not working from home. The 2022 mode patterns by employment state were similar to those observed by residence state.

### Primary Mode by State of Employment – 2022 and 2019

(Shading indicates statistically higher percentages of mode use)

EMPLOYMENT STATE	TELEWORK	PRIMARY COMMUTE MODE (EXCLUDING TELEWORK)*			
		DRIVE ALONE*	CARPPOOL/ VANPOOL	TRANSIT	BIKE/ WALK
CURRENT (2022 SOC)					
District of Columbia (n = 2,871)	55%	56%	5%	32%	7%
Maryland (n = 2,170)	38%	87%	2%	9%	2%
Virginia (n = 2,881)	41%	85%	4%	8%	3%
PRE-PANDEMIC (2019 SOC)					
District of Columbia (n = 2,720)	2%	33%	6%	54%	7%
Maryland (n = 2,447)	7%	81%	5%	12%	2%
Virginia (n = 2,846)	4%	80%	5%	13%	2%

\*Note: distribution of Drive alone, Car/vanpool, Transit, Bike/walk equals 100%; it excludes Primary Telework.

### PRIMARY MODE BY DEMOGRAPHIC CHARACTERISTICS

Analysis of survey data also showed some differences in choice of primary mode (mode used most days per week) among demographic groups. The following tables present distributions of primary mode by respondent age, gender, income, race/ethnicity, and vehicle availability. As was presented for mode by home and work areas, the tables show primary telework percentages, then present primary use of other modes, with telework excluded.

**Age** – Telework was most common among respondents in the middle age groups; about half of respondents between 35 and 54 years of age primarily teleworked, compared with 44% of respondents who were younger than 35 and 39% who were 55 or older. Respondents who were younger than 35 years old were less likely to drive alone than were older respondents.

**Gender** – In 2022, male and female respondents reported primary telework at about the same rate. Other modes showed no statistical differences.

### Primary Mode by Age – 2022 and 2019

(Shading indicates statistically higher percentages of mode use)

AGE	TELEWORK	PRIMARY COMMUTE MODE (EXCLUDING TELEWORK*)			
		DRIVE ALONE	CARPPOOL/ VANPOOL	TRANSIT	BIKE/ WALK
CURRENT (2022 SOC)					
Under 35 years (n = 1,788)	44%	74%	3%	19%	4%
35-44 years (n = 1,843)	51%	78%	4%	14%	4%
45-54 years (n = 1,782)	48%	79%	4%	15%	2%
55+ years (n = 2,409)	39%	81%	3%	13%	3%
PRE-PANDEMIC (2019 SOC)					
Under 35 years (n = 1,725)	4%	59%	5%	31%	5%
35-44 years (n = 1,795)	6%	64%	5%	28%	3%
45-54 years (n = 1,998)	5%	67%	5%	25%	3%
55+ years (n = 2,297)	5%	68%	5%	25%	2%

\*Note: distribution of Drive alone, Car/vanpool, Transit, Bike/walk equals 100%; it excludes Primary Telework.

### Primary Mode by Gender – 2022 and 2019

(Shading indicates statistically higher percentages of mode use)

GENDER	TELEWORK	PRIMARY COMMUTE MODE (EXCLUDING TELEWORK*)			
		DRIVE ALONE	CARPPOOL/ VANPOOL	TRANSIT	BIKE/ WALK
CURRENT (2022 SOC)					
Female (n = 3,670)	46%	76%	4%	17%	3%
Male (n = 3,809)	45%	79%	3%	14%	4%
PRE-PANDEMIC (2019 SOC)					
Female (n = 3,806)	5%	64%	5%	28%	3%
Male (n = 3,859)	5%	64%	6%	26%	4%

\*Note: distribution of Drive alone, Car/vanpool, Transit, Bike/walk equals 100%; it excludes Primary Telework

**Income** – Primary telework showed a strong increasing pattern as income increased. Only 18% of respondents with incomes under \$60,000 primarily teleworked, compared with at least four in ten higher income respondents and more than six in ten (61%) respondents

with incomes of \$180,000 or more. Except for bike/walk use, which was highest among high income respondents, use of other modes did not follow a particular pattern with increasing or decreasing income and differences by income were not statistically significant for most modes.

### Primary Mode by Annual Household Income – 2022 and 2019

(Shading indicates statistically higher percentages of mode use)

HOUSEHOLD INCOME	TELEWORK	PRIMARY COMMUTE MODE (EXCLUDING TELEWORK*)			
		DRIVE ALONE	CARPPOOL/ VANPOOL	TRANSIT	BIKE/ WALK
CURRENT (2022 SOC)					
Less than \$60,000 (n = 610)	18%	74%	4%	19%	3%
\$60,000 – 99,999 (n = 1,226)	40%	80%	1%	16%	3%
\$100,000 – 139,999 (n = 1,162)	48%	78%	4%	14%	4%
\$140,000 – 179,999 (n = 1,043)	51%	74%	4%	18%	4%
\$180,000 or more (n = 1,999)	61%	77%	5%	12%	6%
PRE-PANDEMIC (2019 SOC)					
Less than \$60,000 (n = 633)	2%	65%	3%	28%	4%
\$60,000 – 99,999 (n = 1,234)	3%	66%	4%	26%	4%
\$100,000 – 139,999 (n = 1,267)	5%	61%	6%	29%	4%
\$140,000 – 179,999 (n = 1,103)	4%	62%	5%	29%	4%
\$180,000 or more (n = 1,537)	8%	63%	8%	24%	5%

\*Note: distribution of Drive alone, Car/vanpool, Transit, Bike/walk equals 100%; it excludes Primary Telework.

**Race/Ethnicity** – Hispanic respondents were more likely to carpool/vanpool than were other race/ethnicity groups and Non-Hispanic Blacks rode transit at higher rates than did other groups. Bike/walk was most common among Non-Hispanic White and Asian respondents. The 2022 pattern was similar in proportions to that from 2019, excepting the shifts from transit to driving alone that were noted for other demographic sub-populations. One other difference in the pattern was that carpool/vanpool use grew among Hispanic respondents between 2019 and 2022, while it substantially decreased among Asian respondents.



## Primary Mode by Race/Ethnicity – 2022 and 2019

(Shading indicates statistically higher percentages of mode use)

RACE/ETHNICITY	TELEWORK	PRIMARY COMMUTE MODE (EXCLUDING TELEWORK*)			
		DRIVE ALONE	CARPPOOL/ VANPOOL	TRANSIT	BIKE/ WALK
CURRENT (2022 SOC)					
Hispanic (n = 486)	37%	75%	8%	15%	2%
Non-Hispanic Black (n = 1,220)	39%	78%	2%	19%	1%
Non-Hispanic White (n = 4,577)	48%	78%	3%	13%	6%
Asian (n = 656)	60%	79%	2%	14%	5%
PRE-PANDEMIC (2019 SOC)					
Hispanic (n = 502)	5%	66%	4%	27%	3%
Non-Hispanic Black (n = 1,351)	4%	63%	5%	31%	1%
Non-Hispanic White (n = 5,466)	5%	64%	5%	25%	6%
Asian (n = 586)	5%	63%	8%	27%	2%

\*Note: distribution of Drive alone, Car/vanpool, Transit, Bike/walk equals 100%; it excludes Primary Telework.

## Length of Commute

Both the 2022 survey and past surveys have asked about the distance and time commuters spend traveling to work and the time at which they arrive at work. However, because it was expected that a notable share of workers still could be working from home full-time in 2022, the 2022 survey adjusted this series of questions. First, respondents who teleworked full-time were excluded from the questions on the time they spent commuting and their work arrival time, because it asked about a current activity (commuting to an outside location) that was not relevant to their situation.

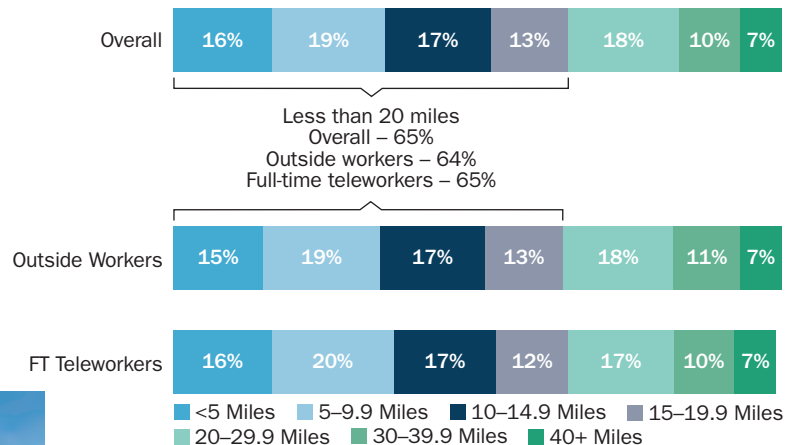
A different change was made to the commute mileage question to include two question forms. Respondents who were traveling to an outside work location one or more days per week were asked the same question that had been asked in the 2019 survey: “How long is your typical daily commute one-way in miles?” Respondents who were teleworking full-time were asked: “You said you are working from home full-time now. How many miles is it one-way from your home to where you would work if you were not working from home?” Because the non-telework location would be a physical location, it was reasonable to expect respondents could provide a valid response to the question.

## NUMBER OF MILES

Respondents reported a wide range of commute distances, ranging from less than one mile to more than 100 miles, with an overall average of 16.7 miles. Slightly more than one-third (35%) of respondents said they commuted, or would commute if they were not teleworking full-time, fewer than 10 miles one-way. Three in ten (30%) reported a distance between 10 and 19 miles. Seven percent reported a commute distance of 40 or more miles.

## Commute Distance (Miles) – Overall, Outside Workers, and Full-time Teleworkers

(Overall n = 7,291, Outside workers n = 4,854, Full-time teleworkers n = 2,452)



The drop could be related to work location changes. said their average travel distance would be 16.3 miles if they were not teleworking. About two thirds of both groups reported they traveled or would travel less than 20 miles (full-time teleworkers 65%, outside workers 64%) and 7% of each group reported 40 or more miles.

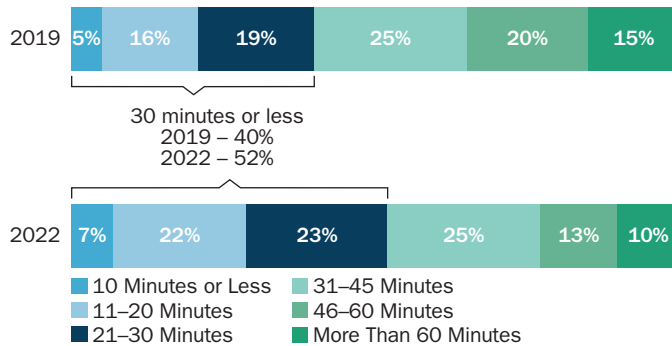


## COMMUTE TRAVEL TIME

Respondents who were traveling to an outside work location commuted, on average, about 37 minutes one-way.

The 2022 reported average commute time (37 minutes) was notably shorter than the time reported in 2019 (43 minutes). This could be related to the slight drop in commute distance, but it is likely the elimination of commute trips due to expanded telework was the more significant factor. One-third of workers were teleworking full-time at the time of the survey and another one-third were teleworking at least occasionally. This would have removed a much larger number of commuting trips from the peak period in 2022 than in 2019.

**Commute Time (Minutes) – 2019 and 2022**  
(2019 n = 7,862, 2022 n = 5,088)



## COMMUTE DISTANCE BY MODE

Survey respondents' travel mileage and travel time differed by the type of transportation they used to commute.

**Average Commute Distance and Commute Time by Primary Mode**

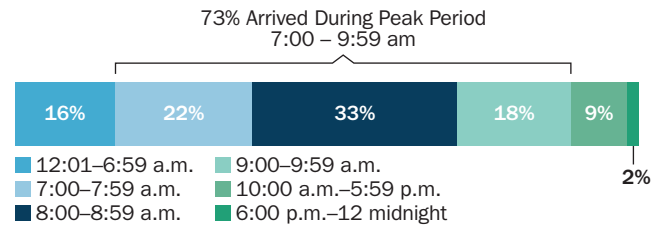
PRIMARY COMMUTE MODE	AVERAGE DISTANCE (MI.)		AVERAGE TIME (MIN.)	
	(N = __)	AVERAGE	(N = __)	AVERAGE
Commuter rail	38	31.1 mi.	47	76 min.
Drive alone	3,247	18.1 mi.	3,434	35 min.
Carpool	104	16.7 mi.	110	37 min.
Bus	175	13.9 mi.	206	50 min.
Metrorail	320	12.4 mi.	383	49 min.
Bike	88	4.5 mi.	88	25 min.
Walk	91	1.3 mi.	98	20 min.

Note: Distances greater than 120 miles and times greater than 150 minutes are excluded from the averages; vanpool is excluded from the mode list due to insufficient sample size for reliable analysis.

## WORK ARRIVAL TIME

More than half (55%) of all respondents typically arrived at work between the hours of 7:00 am and 8:59 am.

**Arrival Time at Work**  
(n = 5,137)



**Arrival Time in 2022 versus 2019** – The question of arrival time was asked only of respondents who were traveling to an outside work location at least one day per week; full-time teleworkers were not asked the question. Thus, the results shown in the figure above represent work arrival time for only about six in ten respondents. But the distribution of arrival times was not substantially different in 2022 than in 2019, when 97% of respondents were asked the question. In 2019, 57% of respondents arrived between 7:00 am and 8:59 am and 77% of respondents arrived during the peak period.

## Alternative Mode Use Characteristics

### CARPOOL OCCUPANCY

About 2% of respondents reported carpooling one or more days per week. On average, respondents' carpools carried 2.3 occupants, including the driver. Average carpool occupancy declined slightly from the 2019 survey, when carpools carried an average of 2.6 occupants. This could reflect a reduction in carpooling with non-family members, but carpool occupancy had fluctuated between 2.4 to 2.6 occupants over the past 15 years of surveys, so the 2022 average does not necessarily indicate a longer-term declining trend. In 2022, two-thirds (67%) of carpoolers rode with just one other person. It was not possible to calculate a reliable vanpool occupancy, because only eight respondents reported vanpooling. But all vanpoolers said their vanpools had eight or fewer occupants.

Seven respondents said they used a pooled form of ridehail, such as UberPool, Uber Express Pool, Lyft Shared Ride, or Lyft XL at least one day per week for their commute. Although ridehail services are not typically considered carpools, in the traditional sense of the word, these pooled options are comparable to casual carpooling because passengers share rides with other passengers.

on a one-time basis. These respondents were asked how many passengers (excluding the driver) were usually in the vehicle, but as with vanpooling, the sample of shared-ride ridehail users was too small to analyze.

## CARPOOL FORMATION ASSISTANCE

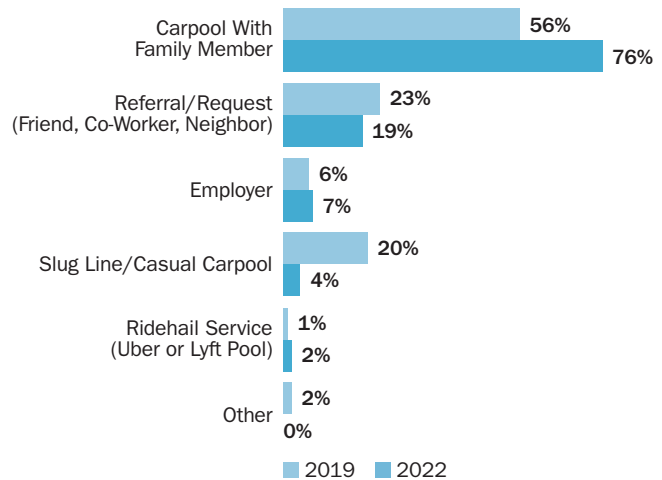
Carpoolers have numerous ways to find rideshare partners. More than three-quarters (76%) of respondents who carpooled at the time of the survey rode with family members. This was a notable increase over the 2019 survey, when only 56% of carpoolers reported household carpooling. This most likely indicates that while the share of regional workers who carpool had declined, household carpooling had continued through the pandemic, representing a larger component of the overall lower carpool population in 2022 than it did in 2019.

The other notable change between 2019 and 2022 was the drop in carpoolers who said they casual carpooled/slugged, so they traveled with different people each day they carpooled. These commuters either pick up riders at slug line pick-up points or wait in the line to travel as a passenger. In 2022, only 4% of carpoolers found their partners through slug lines, compared with 20% in 2019.

For more than 25 years, slug lines that facilitate use of this mode, primarily located in Virginia near the I-95 and I-395 HOV lanes, have provided both a substantial time-saving motivation for commuters to carpool and an opportunity to carpool without committing to a full-time carpool arrangement. The coronavirus pandemic could have had two impacts on these arrangements. First, the shift of many workers to work from home/telework would have reduced the number of potential slug drivers and riders. The second possible factor is commuters' desire to minimize their risk of contracting coronavirus by avoiding travel with commuters whose virus and or vaccination status they did not know.

The percentages of carpoolers who found carpool partners by other methods did not change substantially from 2019 to 2022. The second highest share of carpool formation in 2022 was by referral or simple request from a friend, co-worker, or neighbor who knew that their work locations and schedules were compatible; 19% of respondents cited this source. Presumably these respondents did not need assistance from an outside group to find rideshare partners, although they might have received other services, such as preferential or reserved carpool parking at work or information about the location of Park & Ride lots, which influenced their decisions to rideshare. The 2022 percentage was near the 23% for referrals in the 2019 survey.

**How Carpool Riders Found Rideshare Partners – 2019 and 2022**  
(2019 n = 420, 2022 n = 153; multiple responses permitted)



Seven percent of carpoolers said they found their rideshare partners through their employer, about the same as the 6% who reported this source in 2019.

Although some employers do provide pool formation assistance, it is likely that many of these ridersharers used regional or local commuter ridematching resources, which were provided to them at transportation information meetings and fairs at their worksites, with the agreement and encouragement of their employers. Two percent said they carpooled through a pooled ridehail service, such as UberPool or Lyft Shared Ride.

## ACCESS MODE TO ALTERNATIVE MODE MEETING POINTS AND FROM DROP OFF TO WORKSITE DESTINATION

The table in the next column presents how carpoolers, vanpoolers, and transit riders traveled to where they met their rideshare partners or where they started their transit trip. The table also shows results for a question asking transit commuters how they got from where they departed the bus or train to their work location. This question was designed particularly to examine use of bikeshare and E-scooters as a "last mile" option to get from a transit stop to the workplace.



## Means of Getting from Home to Alternative Mode Meeting Place and from Alternative Mode “Drop Off” Location to Worksite Destination

(Access to alternative mode n = 1,039; Worksite destination access n = 878)

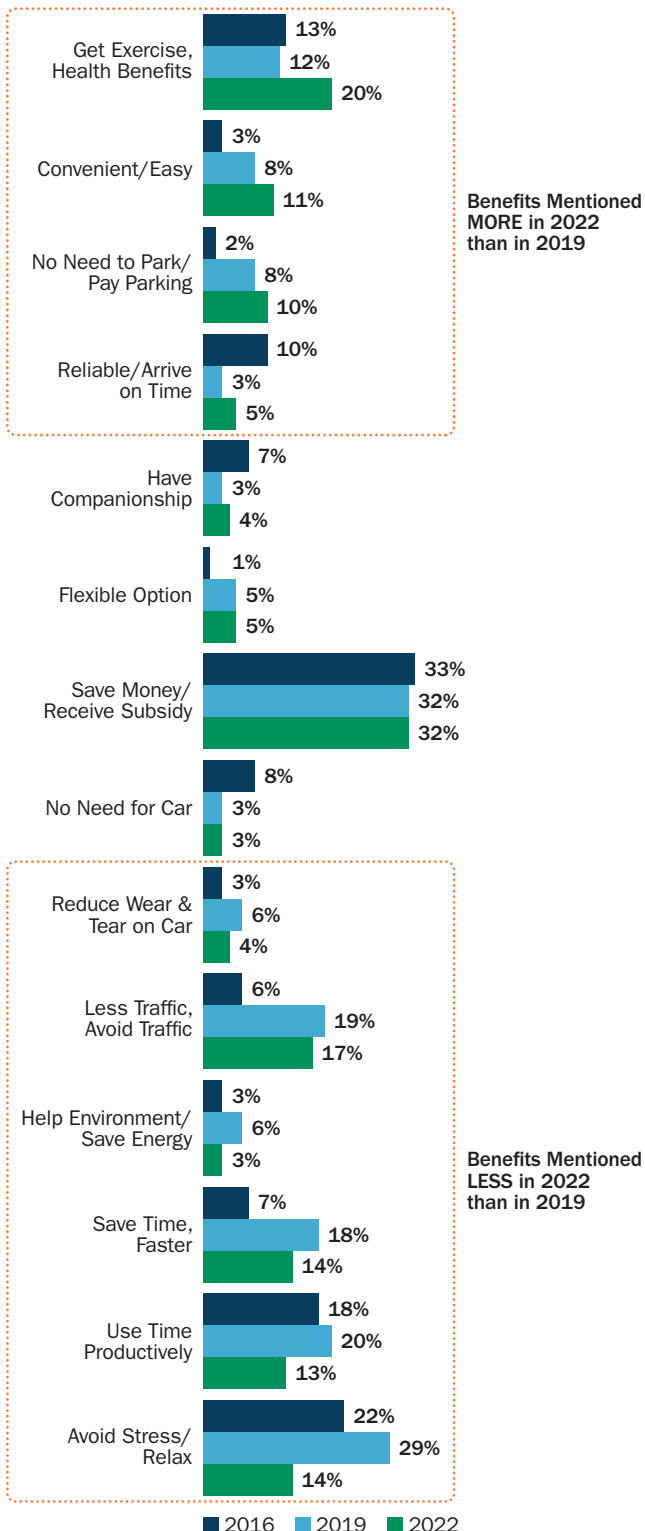
ACCESS/DESTINATION MODE	ACCESS MODE PERCENTAGE	DESTINATION MODE PERCENTAGE
<b>DRIVING ACCESS</b>	<b>22%</b>	
Drive to a central location (e.g., Park & Ride)	21%	
Drive alone to driver's/passenger's home	1%	
<b>NON-DRIVING ACCESS</b>	<b>78%</b>	
Walk	45%	
Picked up at home by carpool/vanpool driver	13%	
Bus/transit	13%	
Dropped off/rode in another carpool/vanpool	3%	
I drive the carpool/vanpool or carpool with family members	2%	
Bike	2%	
<b>NON-DRIVING DESTINATION MODE (TRANSIT USERS)</b>		<b>100%</b>
Walk		93%
Ridehail (Uber, Lyft)		2%
Bike (personal, bikeshare, dockless), scooter/E-scooter		1%
Bus, shuttle, Metrorail		4%

## PERSONAL BENEFITS OF ALTERNATIVE MODE USE

Respondents who used alternative modes were asked what benefits they personally had received from traveling to work this way. Saving money or receiving a financial incentive that reduced their transportation cost topped the list of personal benefit; 32% of alternative mode users mentioned this benefit. convenient/easy way to travel (11%) and 10% benefitted by not needing to find or pay for parking.

## Personal Benefits of Alternative Mode Use – 2016, 2019, and 2022

Asked Only of Alternative Mode Users  
(2016 n = 1,555, 2019 n = 2,610, 2022 n = 1,203)  
(Scale extends only to 60% to highlight differences between years)



Responses that were mentioned less often in 2022 than in 2019 are shown in the orange box at the bottom of the figure. These included reducing wear and tear, avoiding traffic, environmental concern, saving time, using time productively, and avoiding stress. Benefits in the center of the figure were mentioned at statistically the same rates in 2022 as in 2019.

#### Differences in Personal Benefits by Alternative Mode –

Saving money was a common personal benefit named by all alternative mode users, with about two in ten in each mode group naming this benefit and bike/walk users noted this benefit at a much higher rate than did transit riders. [cc]

#### Personal Benefits of Alternative Mode Use by Primary Alternative Mode

(Shaded percentages indicate statistically higher values for benefits)

PERSONAL BENEFIT	CARPPOOL (N = 135)	TRANSIT (N = 800)	BIKE/WALK (N = 261)
Save money	16%	22%	17%
Save time, travel faster	21%	11%	24%
Have companionship during commute	24%	1%	1%
Save gas, save energy	12%	7%	2%
Can use HOV lane	10%	0%	0%
Less traffic/don't need to drive	5%	23%	6%
Use travel time productively	5%	17%	4%
Avoid stress, relax	3%	16%	16%
No need to park/look for parking	3%	13%	5%
Receive financial benefit for mode use	0%	10%	0%
Get exercise	0%	5%	78%
Less wear and tear on car	7%	4%	2%
Flexibility/control/always available	6%	4%	8%
Arrive at work on time	4%	4%	6%
No need for a car	1%	3%	1%



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