



2013

STATE OF THE COMMUTE

"At-a-Glance" Survey Section

FROM THE METROPOLITAN WASHINGTON DC REGION

Commute Patterns



This is a “At-a-Glance” section from the 2013 State of the Commute (SOC) Report showing key figures and tables for commute patterns. To view the full report, go to www.commuterconnections.org.

CURRENT COMMUTE MODE

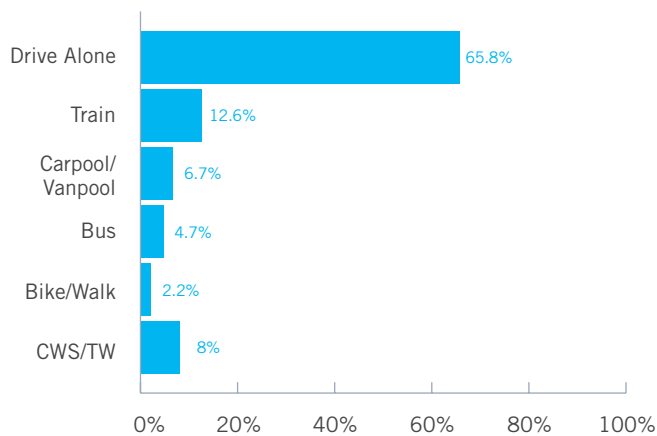
Respondents were asked what modes they used to travel to work each weekday (Monday–Friday) during the survey week. If they were sick, on holiday or vacation, or otherwise absent from work one or more days during the week, they were asked to report how they likely would have traveled to work on those days. The following figures present several different views of modal distribution.

Weekly Work Days by Mode in 2013

This figure presents mode shares as a percentage of commuters’ weekly work days. The figure includes five traditional “on the road” mode groups for travel to job locations outside the home: drive alone, train (subway/commuter rail), carpool/vanpool, bus, and bike/walk. The figure also includes the mode share for telework and compressed work schedule. These are not actually travel modes, but this figure includes them to show the percentage of weekly work trips that are eliminated through use of these work schedule options.

Weekly Commute Trips by Modes—2013

(n = 5,882)



If the telework and compressed schedule days off are excluded, to estimate the “on the road” mode share of commute trips that actually are made, the percentage use of each of the five travel modes increases. Without telework and CWS, the drive alone share would rise to 71.5% of weekly commute trips. The weekly commute trip distribution would be:

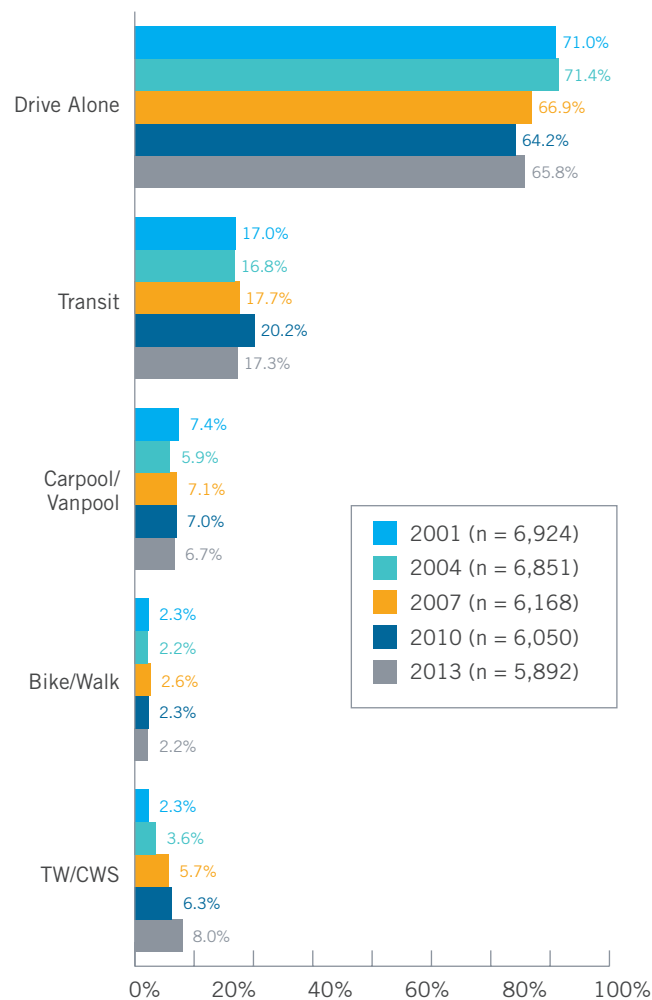
- Drive alone 71.5%
- Train 13.7%
- Carpool/vanpool 7.3%
- Bus 5.1%
- Bike/walk 2.4%

Weekly Trips by Mode 2013, 2010, 2007, 2004, and 2001

The next figure presents mode shares as a percentage of weekly commute trips for the past five SOC surveys: 2013, 2010, 2007, 2004, and 2001. The comparison shows that the share of drive alone trips remains below the rates for 2001, 2004, and 2007, and is about the same as in 2010.

Percentage of Weekly Trips by Mode—2013, 2010, 2007, 2004, and 2001

(Including telework and compressed schedules)



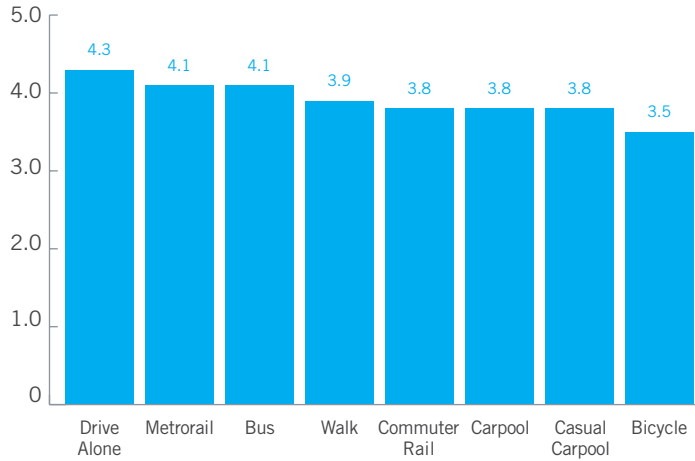
Mean Days Used

The next figure shows the average number of days each mode/ mode group was used. All of modes average at least three days use per week. Driving alone, Metrorail, and bus all are used four days per week or more. This is consistent with other results in the survey, which show that 86% of commuters used a single mode for four or more of their commute days and 68% used a single mode for five commute days per week.



Average Days Modes Used

(Drive Alone n = 4,303, Metrorail n = 674, Bus n = 326, Walk n = 128, Commuter Rail n = 73, Carpool n = 378, Casual Carpool n = 30, Bicycle n = 54; Note Vanpool not included due to insufficient sample size)



Mode Use within Mode Groups

This figure shows relative use of individual modes within the following four travel alternative mode groups: train, carpool/vanpool, bus, bike/walk.

Train—The train mode group is comprised of Metrorail and three commuter rail companies: MARC (Maryland commuter rail), Virginia Railway Express (VRE), and Amtrak.

Carpool/Vanpool—Among respondents who carpool, regular carpooling dominates.

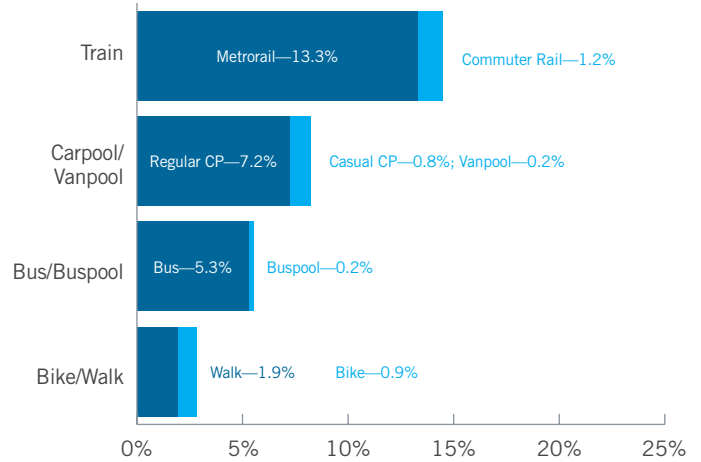
Bus—Regular, scheduled bus/shuttles accounts for nearly all bus use.

Bike/Walk—Walking accounts for about two-thirds of the bike/walk mode group.

Composition of Alternative Mode Groupings

Modes Used 1+ Days per Week

(n = 5,892)

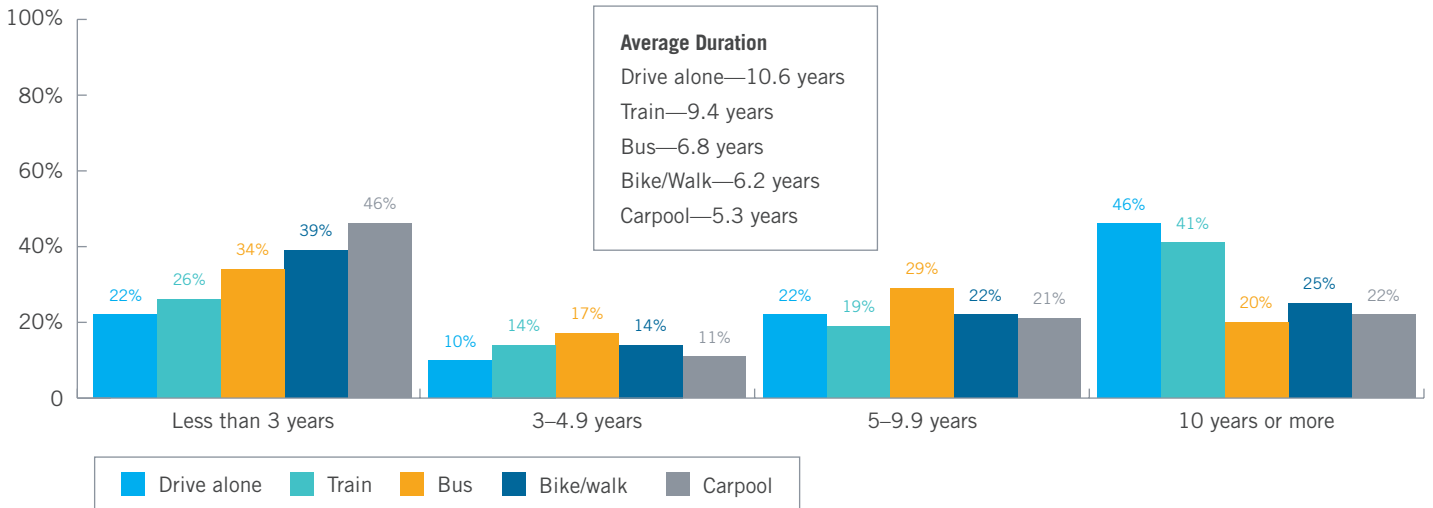


Length of Time Using Mode

Respondents were asked how long they have used each mode they reported using one or more days per week. Results are shown in the next figure for commuters who drive alone, ride a train, ride a bus, bike/walk, and carpool.

Duration of Mode Use

(Drive alone n = 3,123, Train n = 665, Bus n = 302, Bike/Walk n = 171, Carpool n = 390)



PRIMARY COMMUTE MODE BY DEMOGRAPHIC GROUP

Analysis of survey data showed some modest differences in choice of primary mode (mode used most days per week) among various demographic groups. The next few tables present distributions of primary mode by respondent sex, ethnic group, age, income, vehicle availability, and location of residence and employment. Note that telework percentages are excluded from the tables.

Sex

There are no significant differences in mode use rates for any modes between men and women; they are equally likely to drive alone, carpool/vanpool, ride a train, ride a bus, and walk or bicycle.

Primary Mode by Sex

(Note: row totals might not add to 100% because telework is not included)

Sex	(n=)	Primary Commute Mode				
		Drive Alone	Carpool/Vanpool	Bus	Train	Bike/Walk
Female	3,035	68%	7%	5%	14%	2%
Male	2,857	68%	7%	5%	13%	2%

Ethnic Group

This table shows primary mode distribution for respondents of the four primary ethnic groups.

Primary Mode by Ethnic Group

(Note: row totals might not add to 100% because telework is not included)

Ethnic Group	(n=)	Primary Commute Mode				
		Drive Alone	Carpool/Vanpool	Bus	Train	Bike/Walk
Hispanic	359	73%	9%	5%	11%	1%
White	1,094	68%	6%	4%	13%	3%
African-American	4,066	64%	7%	6%	18%	1%
Asian	372	68%	8%	7%	9%	2%

Age

Respondents who are younger than 25 years old are less likely to drive alone and more likely to use the bus and to walk than are older respondents.

Primary Mode by Age Group

(Note: row totals might not add to 100% because telework is not included; Shaded percentages indicate statistical differences)

Age	(n=)	Primary Commute Mode				
		Drive Alone	Carpool/Vanpool	Bus	Train	Bike/Walk
<25 years old	184	56%	11%	12%	15%	5%
25–34 years old	640	69%	8%	6%	13%	3%
35–44 years old	1,262	69%	6%	3%	13%	3%
45–54 years old	1,766	68%	7%	5%	13%	2%
55 years or older	1,848	67%	7%	4%	13%	2%

Income

This table presents primary mode by annual household income.

Primary Mode by Annual Household Income

(Note: row totals might not add to 100% because telework is not included; Shaded percentages indicate statistical differences)

Income	(n=)	Primary Commute Mode				
		Drive Alone	Carpool/Vanpool	Bus	Train	Bike/Walk
Less than \$30,000	194	48%	13%	15%	16%	6%
\$30,000–59,999	501	74%	5%	6%	11%	2%
\$60,000–79,999	447	72%	7%	7%	12%	1%
\$80,000–99,999	394	65%	8%	6%	15%	3%
\$100,000–119,999	676	73%	5%	6%	11%	1%
\$120,000–139,999	511	68%	7%	7%	13%	2%
\$140,000–159,999	484	62%	5%	6%	18%	3%
\$160,000–179,999	312	72%	7%	3%	11%	1%
\$180,000 +	654	62%	10%	3%	15%	2%

Vehicles Available

This table shows the primary mode distribution by the number of vehicles in the respondent's household.

Primary Mode by Number of Vehicles in the Household

(Note: row totals might not add to 100% because telework is not included; Shaded percentages indicate statistical differences)

Number of Vehicles	(n=)	Primary Commute Mode				
		Drive Alone	Carpool/Vanpool	Bus	Train	Bike/Walk
0	229	4%*	4%	27%	48%	16%
1	1,330	54%	8%	8%	21%	3%
2	2,199	73%	7%	3%	11%	2%
3 or more	2,010	77%	7%	2%	7%	1%

* Respondents in this group could be passengers in taxi

Residence and Employment Location

Residence State—As illustrated in this table, respondents' commute modes differ by where they live.

Primary Mode by State of Residence and State of Employment

(Note: row totals might not add to 100% because telework is not included; Shaded percentages indicate statistical differences)

State	(n=)	Primary Commute Mode				
		Drive Alone	Carpool/Vanpool	Bus	Train	Bike/Walk
State of Residence						
District of Columbia	577	38%	7%	12%	29%	10%
Maryland	2,878	74%	6%	3%	12%	1%
Virginia	2,880	69%	8%	5%	10%	2%
State of Employment						
District of Columbia	1,794	41%	11%	8%	33%	4%
Maryland	2,130	83%	5%	3%	3%	1%
Virginia	2,306	77%	5%	4%	6%	2%

Employment State—The table also displays Primary Mode by state of employment.

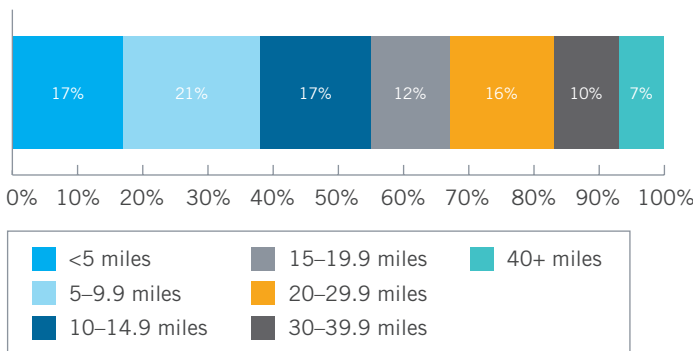
LENGTH OF COMMUTE

Number of Miles

Commuters in the sample have a wide range of commute distances, ranging from less than one mile to more than 100 miles, with an overall average of 16.0 miles one-way. This figure presents the distribution of distance.

Commute Distance (miles)

(n = 5,122)

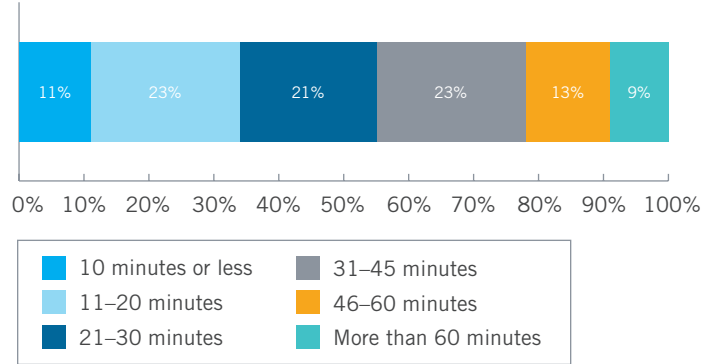


Commute Travel Time

Survey respondents commute, on average, about 36 minutes one way.

Commute Distance (minutes)

(n = 5,605)



The reported average commute distance fell during the past three years, from 16.3 miles in 2010 to 16.0 miles in 2013, but the average travel time has remained stable since 2004. In 2013, commuters traveled on average of 36 minutes, the same time as in 2010, one minute longer than measured in 2007 and just two minutes longer than observed in 2004. None of these differences are statistically significant.

Commute Distance By Mode

Survey respondents' travel distance varies by the type of transportation they used to commute.

Commute Distance by Primary Mode

Primary Commute Mode*	Average Distance (mi.)		Average Time (min.)	
	(n=)	Average	(n=)	Average
Commuter rail	56	32.0 mi.	72	62 min.
Carpool	351	17.5 mi.	400	38 min.
Drive alone	3,812	16.3 mi.	3,980	33 min.
Bus	235	14.2 mi.	294	52 min.
Metrorail	479	13.3 mi.	669	47 min.
Bike	54	4.6 mi.	54	22 min.
Walk	119	1.0 mi.	124	16 min.

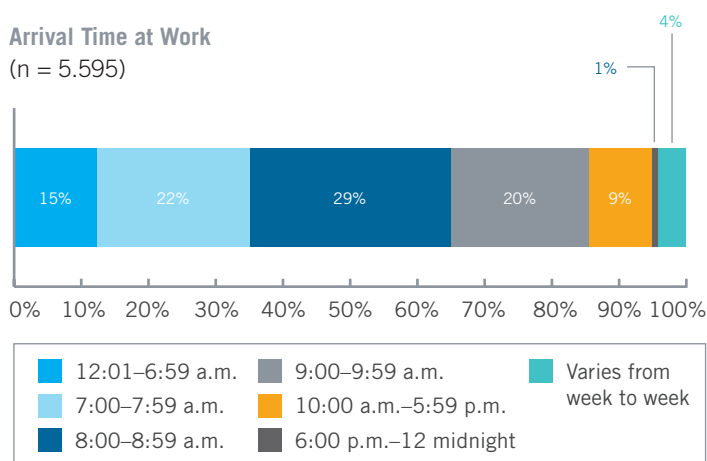
* Vanpool is excluded due to very small sample size.

Work Arrival Time

About half of all respondents typically arrive at work between the hours of 7:00 a.m. and 9:00 a.m.



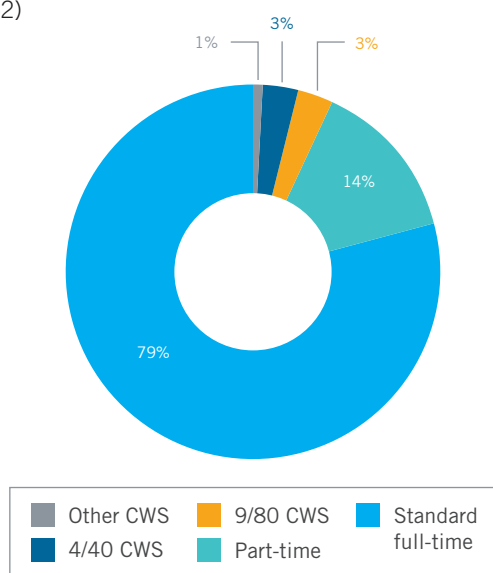
Arrival Time at Work (n = 5,595)



NON-STANDARD WORK SCHEDULES *Non-Standard Work Schedules Used*

This figure shows the distribution of work schedules for respondents who said they commute to an outside work location.

Non-Standard Schedule Types Used (n = 5,052)



Primary Mode by Non-Standard Schedule

Use of non-standard work schedules sometimes has been assumed to reduce the use of alternative modes for commuting, by making it more difficult to maintain a carpool or vanpool or by reducing the possibility of using transit for early or late hour commuting. But as seen from the next table, respondents who work a compressed schedule actually drive alone less and have a higher rate of train use than do respondents who work a standard, non-compressed, schedule. Compressed schedule workers use carpool/vanpool, bus, and bike/walk at the same rate as do employees who work a standard schedule.

Primary Mode by Use of Non-Standard Schedules

(Note: row totals might not add to 100% because telework is not included; Shaded percentages indicate statistical differences)

Type of Schedule	n(=)	Primary Mode				
		Drive Alone	Carpool/Vanpool	Bus	Train	Bike/Walk
Compressed schedule	441	65%	6%	5%	19%	2%
Standard schedule	4,573	70%	7%	5%	14%	2%

ALTERNATIVE MODE USE CHARACTERISTICS *Carpool and Vanpool Occupancy*

Overall average pool occupancy is 2.7—10.8 for vanpools and 2.4 for carpools. Carpool occupancy appears to be on a slight downward trend. The average occupancy in 2001 and 2004 was 2.6. In 2007 and 2010, the average was 2.5. About two-thirds (67%) of carpools ride with just one other person.

The vanpool average of 10.8 is considerably higher than the averages estimated in 2010 (7.6) and 2007 (9.9), but about the same as the 11.4 average occupancy estimated in 2001. This survey-to-survey variability could be related to the small sample size for vanpools; only 21 of the 2013 respondents said they rode in a vanpool and past SOC vanpool sample sizes were similarly small.

Access Mode to Alternative Mode Meeting Points

This table presents how carpools, vanpools, and transit riders travel to where they meet their rideshare partners or where they start their transit trip.

Means of Getting from Home to Alternative Mode Meeting Place (n = 1,442)

Access Mode to Alternative Mode	Percentage
Driving access	29%
Drive to a central location (e.g., Park & Ride)	19%
Drive alone to driver's/passenger's home	10%
Non-driving access	71%
Walk	34%
Bus/transit	13%
I am the carpool/vanpool driver or carpool with family member	6%
Picked up at home by carpool/vanpool driver	16%
Dropped off/rode in another carpool/vanpool	2%



79% of respondents said they work a "standard" full-time schedule, defined as five or more days per week.



MODE SHIFTS AND MODE SHIFT MOTIVATIONS

Modes Used Before Starting Current Alternative Modes

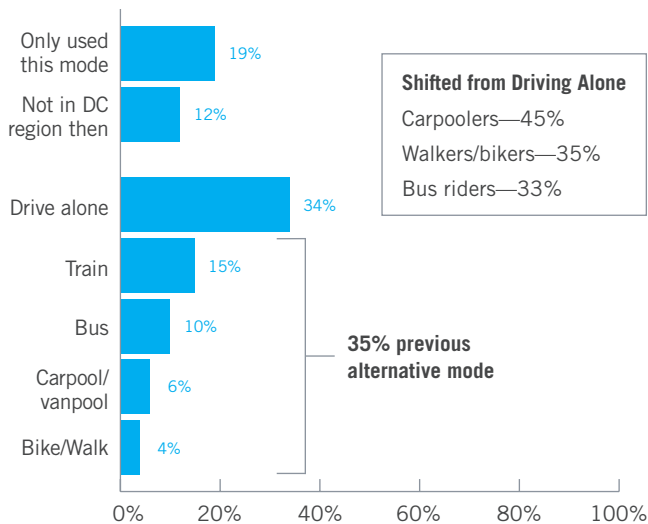
Respondents who used an alternative mode and said they have used that mode three years or less were asked what modes they previously used. As shown in the next figure, 12% said they did not have a previous mode to report because they were not working or commuting in the Washington metropolitan area then and another 19% said they have used only this mode.

The inset box in the figure shows the share of previous drive alone use for current alternative mode users.

Previous Mode of Current Alternative Mode Users:

Respondents who have Used Current Alternative Mode Three Years or Less

(n = 686, multiple responses permitted)



Reasons for Using Alternative Modes

Respondents who used an alternative mode, either during the survey week or within the past two years were asked why they began using those modes. The reasons are listed in this next figure, divided into three broad categories of motivations:

- **Personal benefits**—benefits the respondent would expect to receive by using an alternative mode
- **Commuter program**—commute assistance services the respondent received that encouraged or assisted use of the alternative mode
- **Personal circumstances**—personal circumstances or changes experienced by the respondent

Current alternative mode users noted motivations in each of the three categories.



67% of carpoolers ride with just one other person.



Motivations to Start Using Current Alternative Mode

(Note: Scale extends only to 30% to highlight difference in responses)
 (n = 576, multiple responses permitted)

