ITEM #2

COMMUTER CONNECTIONS
STATE OF THE COMMUTE SURVEY
2013

Technical Survey Report

Draft

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Metropolitan Washington Council of Governments

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SECTION 1 – INTRODUCTION

This report presents the results of the State-of-the-Commute (SOC) Survey conducted for the Commuter Connections program of the Metropolitan Washington Council of Governments (COG).[1] Commuter Connections provides a wide range of transportation information and assistance services in the Washington metropolitan area designed to inform commuters of the availability and benefits of alternatives to driving alone and to assist them to find alternatives that fit their commute needs. COG administers these services, called Transportation Emission Reduction Measures (TERMs), in a regional effort to reduce vehicle trips, vehicle miles of travel, and emissions resulting from commute travel.

COG has a strong interest in evaluating the effectiveness of its commuter services programs. In 1997 Commuter Connections established an evaluation framework that outlined a methodology and data collection activities to evaluate several of its commuter programs. This framework was updated and revised four times, in 2001, 2004, 2007, 2010, and 2013, to include several enhancements.[2] A major addition to the 2001 framework was the State of the Commute (SOC) survey, a random sample survey of employed persons in the Washington metropolitan region.

The SOC survey serves several purposes. First, it documents trends in commuting behavior, such as commute mode shares and distance traveled, and prevalent attitudes about specific transportation services, such as public transportation, that are available to commuters in the region.

Second, the SOC survey is used to help estimate the impacts of some TERMs, such as Commuter Connections' Telework Assistance and Mass Marketing, two TERMs that might influence the population-at-large as well as commuters who directly participate in Commuter Connections' programs. Third, by querying commuters about sources of information on alternative modes and their reasons for choosing alternative modes for commuting, the survey examines how other commute alternative programs and marketing efforts might influence commuting behavior in the region. Finally, the survey includes questions to explore commuters' opinions about and interest in current transportation initiatives.

This report summarizes the survey methodology, presents key results of the survey, and offers conclusions about regional commute travel based on the results. The report is divided into three sections following this introduction:

- Section 2 – Description of the survey and sampling methodology
- Section 3 – Presentation of the survey results
- Section 4 – Conclusions from the survey results

Following these four main sections are five appendices dealing with survey procedures. They include: Appendix A – Survey weighting and data expansion, Appendix B – Dialing dispositions, Appendix C – Survey questionnaire, Appendix D – Instructions and definitions of terms, and Appendix E – Comparison of key SOC Results – 2013, 2010, 2007, 2004, and 2001.

[1] Commuter Connections is administered through the National Capital Region Transportation Planning Board (TPB) at COG and funded through the District Department of Transportation, the Maryland Department of Transportation, and the Virginia Department of Transportation, with state and federal funds.

[2] For more information on the evaluation framework in effect at the time of this survey, readers may refer to *Transportation Emissions Reduction Measures (TERMs) Revised Evaluation Framework – FY2012 –FY2014*, available from COG.

SECTION 2 – SURVEY AND SAMPLING METHODOLOGY

Overview

The geographic scope of COG's responsibility encompasses the 11 independent cities and counties that make up the Washington metropolitan region. All households within this geographic area that had at least one employed person residing in the household were eligible for selection in the 2013 study. A minimum of 575 random telephone surveys were conducted in each of the 11 jurisdictions of the study area, resulting in 6,335 completed interviews.

The primary purpose of conducting this survey was to meet multiple objectives, including trend analysis and TERM evaluation. Wherever possible, an attempt was made to replicate questions used in previous transportation demand management studies to allow for trend analysis. Additionally, the SOC Survey included survey modules specific to three TERMs: Maryland Telework, Employer Outreach, and Mass Marketing.

Questionnaire Design

The 2013 SOC questionnaire was based on the questionnaire used in 2010, with modifications and additions as needed. LDA Consulting, CIC Research, and COG/TPB staff modified the survey questionnaire, with input from a TDM Evaluation Group comprised of representatives from the District of Columbia, Maryland, and Virginia. The survey was intended to meet multiple objectives, including trend analysis and evaluation of two TERMs: Telework and Mass Marketing.

Wherever possible, the study team retained the 2010 SOC questions to allow trend analysis, but changes were made when the revisions were expected to add substantially to the accuracy of the data. Minor changes were made to the 2010 questionnaire to enhance respondents' understanding of the questions and several questions were deleted to shorten the survey. New questions were added to identify major roadways that commuters used in their travel to work and to examine commuters' interest in new transportation services, such as bikeshare and dynamic rideshare, which are currently offered or might be offered or expanded in the region in the future.

Finally, new questions were added to determine if the respondent was speaking on a cell phone or landline and to collect other information related to the availability of cell phones and landlines in the household. The 2013 survey included both landline and cell phone numbers in the sample and the additional data were used in the pre-weighting calculations to adjust the survey results for the overlapping, dual-frame sampling design. Cell phone respondents were also asked pre-screening questions concerning whether they were in a safe place to answer the survey questions, and then upon completing the interview, they were asked if they would like to receive a $5 Amazon gift card to help compensate for cell phone minutes used.

Prior to the start of the full survey, CIC conducted two survey pretests. In early December 2012, a pretest was conducted with 103 respondents in the landline sample to check the initial survey administration and interview responses. Due to the long initial average length of interview, several questions were deleted from the questionnaire. Following the modification of the survey instrument, a second pretest was administered in mid-December. Ninety-two surveys were completed: 51 from the landline sample and 41 from the cell phone sample. After examining the responses to these interviews, the study team deleted several additional questions and finalized the survey instrument at the end of December. The questionnaire also was translated into Spanish.

The survey instrument was programmed for telephone administration using Computer Assisted Telephone Interviewing (CATI) with predictive dialing for the landline calls and preview dialing for the cell phone calls. A copy of the English questionnaire is included in Appendix C. A Spanish version of the questionnaire is available upon request and 97 of the total 6,335 interviews (1.5%) were conducted using the Spanish-language version.

Sample Selection

The survey described in this report was conducted using a random sample of residents in the 11-jurisdiction Washington, DC region. Eligible respondents were 18-years of age or older, employed, and residing within the study area. Quotas were set at a minimum of 600 completed surveys in each of the 11 jurisdictions. Sample points were chosen randomly from the database developed by CIC Research. A total of 367,139 sample points were generated internally through CIC's random digit dialing sampling system, GENESYS. This system was used to randomly draw telephone numbers by county and, where prefixes overlapped counties, by ZIP code, from all working prefixes. Next, CIC used its Voxco CATI system in the sample cleaning process. The Voxco system uses a Pronto dialer which pre-screens the sample points for disconnected, fax, and business telephone numbers. This procedure was completed prior to starting the survey and resulted in 195,685 ineligible sample points being purged from original sample. The remaining 171,454 sample points were eligible to be included for random selection in the survey. A detailed list of dialing results can be found in Appendix B.

The survey described in this report was conducted using a random sample of residents in the 11-jurisdiction Washington, DC region. Eligible respondents were 18-years of age or older, employed, and residing within the study area. Survey quotas were set at a minimum of 575 completed interviews in each of the 11 jurisdictions (6,335 total interviews). This sample size represents a slight decrease from the 2010 level of 600 completed surveys per jurisdiction (total of 6,600 interviews), but the 2013 sample provides the same level of confidence, as did the 2010 survey for all regional analysis (95% $\pm$ 1.2%) and state and multi-jurisdiction sub-group analysis. The level of confidence for analysis at the individual jurisdiction (e.g., county / city) level decreased very slightly, from 95% $\pm$ 4.02% to 95% $\pm$ 4.1%; this change did not affect the reliability of comparisons with 2010 results.

Sample points were chosen randomly from the database developed by CIC Research using an overlapping, dual frame sampling design. That is, the sample was drawn randomly from two separate sample groups: landline phone respondents, and cell phone respondents.

This was a departure from the 2010 survey, in which only landline sample points were surveyed. But it was deemed necessary to include cell phone numbers because the proportion of "cell phone only" (CPO) households (i.e., households that have a cell phone but do not have a landline) has increased in the past few years and is now estimated at 30% region-wide and CPO households have been found to have different demographics (younger, more non-white, lower income) than those with landlines.

A total of 576,677 sample points were generated for the landline survey through CIC's access to Marketing Systems Group's (MSG), random-digit-dialing sampling system, GENESYS. The objective of the survey was to complete at least 5,016 landline interviews. The GENESYS system was used to randomly draw telephone numbers by county and, where prefixes overlapped counties, by ZIP code, from all working prefixes. Next, the sample was pre-screened to remove disconnected, fax, and business telephone numbers. This procedure together with removing duplicate sample points was completed prior to starting the landline survey and resulted in 214,849 ineligible sample points being purged from the original landline sample. The remaining 361,828 landline sample points were eligible to be included for random selection in the landline survey, and were loaded into the VOXCO browser.

For the cell phone survey, a total of 153,538 sample points with cell phone prefixes were specified by CIC and generated through MSG's random-digit-dialing sampling system, GENESYS. The pre-survey goal was to complete at least 1,309 random cell phone interviews. To pre-screen the generated cell phone sample, two processes were run on the sample. The first process identified active cellular numbers so that non-active numbers could be eliminated. The second process appended a billing ZIP code to the cell numbers where possible so that cell phone users who don't live in the 11-jurisdiction area could be eliminated. This resulted in 72,838 ineligible sample points being purged from the original cell phone sample. The remaining 80,700 cell phone sample points were eligible to be included for random selection in the cell phone survey and were loaded into the VOXCO browser.

The Federal Telephone Consumer Protection Act of 1991 prohibits the use of autodialers for dialing cellular phone numbers, including those made for research purposes. Thus, instead of using the predictive dialer, CIC used pre-

view dialing for the cell phone calls included in this study, in which interviewers see the available sample point before manually placing the call. This system did not introduce any bias in the selection of calls, because the phone numbers in the sample appeared in a random order and the CIC interviewers selected the next available number on the list.

Interviews in the cell phone sample included both CPO respondents as well as respondents who had both a landline and cell phone, thus individual jurisdictions had different proportions of CPO households within them. The jurisdictions with the highest proportions of CPO households also had the highest share of CPO interviews completed in their sample. A detailed list of dialing results for the survey can be found in Appendix B.

Survey Administration

The telephone survey was conducted in CIC's telephone survey facility, with landline calls made using predictive dialing and cell phone calls using preview dialing. Interviews were conducted using the Voxco CATI system. The Voxco system is an integrated survey system encompassing both CATI and Web applications which simplifies survey management while boosting interviewer performance. Before beginning the full survey effort, CIC conducted an interviewer-training session. Items included in the session were:

- Explanation of the purpose of the study
- Identification of the group to be sampled
- Overview of COG and its function
- Review of the definition and instruction sheet to familiarize interviewers with the terminology
- Verbatim reading of the questionnaire
- Paper/CATI review of skip-patterns to familiarize interviewers with questionnaire flow
- Practice session on the CATI system in full operational mode
- Additional training for experienced interviewers on cell phone interviewing techniques

Interviews were conducted between January 5 and April 10,2013. The landline survey was completed on April 10, 2013 and the cell phone survey was completed on March 30, 2013. All calls were made to the respondents' home numbers. Weekday calls were made from 5:30 pm to 8:30 pm local time and weekend calls from 10:00 am to 6:30 pm local time. CIC interviewers conducted a minimum of five callback attempts at different times and over different days throughout the data collection period. CIC adopted measures to assure confidentiality of responses. Bilingual interviewers surveyed all Spanish-speaking respondents using the Spanish version of the questionnaire. A total of 94 interviews were conducted in Spanish; 57 land line interviews (1.1%) and 37 cell phone interviews (3.6%).

All interviewing was conducted with survey supervisors present. The survey supervisors were responsible for overseeing the CATI server, checking quotas, editing call-back appointment times, monitoring interviews, answering questions, and reviewing completed surveys. To ensure quality control, the survey supervisors monitored a minimum of 10% of each surveyor's interviews. Other quality assurance logical checks were applied as the survey data was collected. Overall, the landline interviews took an average of 17.0 minutes to complete in 2013 as compared to 21.1 minutes in 2010, and 16.5 minutes in 2007. In 2013, the cell phone interviews took an average of 18.5 minutes to complete.

A minimum of 575 interviews were completed in each of the 11 jurisdictions, resulting in a total sample size of 6,335 completed surveys (5,301 on landlines and 1,034 on cell phones). The 2013 landline refusal rate of 9.0 percent[3] was lower than 14.3 percent rate in 2010 and 14.8 percent rate in the 2007 study. The cell phone refusal rate for the 2013 survey was 18.0 percent. An average of 62.8 call attempts was made for each completed landline interview. This was a decrease from 73.0 call attempts in the 2010 study and similar to the 62.2 call attempts in the

[3] Refusal rates are calculated as the number of initial refusals plus the number terminated during the interview, divided by the total sample. See Appendix B.

2007 study. The large number of call attempts is likely due to extensive use of personal answering machines, caller-ID services, and other technical services that make it possible for respondents to screen telephone calls and avoid answering calls from unknown persons. The average number of call attempts for each completed cell phone interview was 27.6 calls.

Weighting of Survey Data

A three-part sample weighting process was implemented to ensure that the survey results were representative of each of the 11 study areas and of the region as a whole. First, a pre-weight adjustment was made to equalize selection probabilities related to multiple telephone (landline and cell phone) access. Second, using methodologies utilized in the 2007 and 2010 SOC surveys, results were aligned by published employment information contained in the Bureau of Labor Statistics' (BLS) Local Area Unemployment Statistics (LAUS). The employment information for each of the 11 areas was used to compute expansion factors which were applied to the survey results. Third, again using methodologies previously used, survey results were aligned by the following ethnic groups: Black, Hispanic, White and Other. Weighting factors were calculated using ethnicity distributions published in the U.S. Census Bureau's American Community Survey (ACS). This is an on-going study which surveys populations throughout the United States and thus includes the 11 study areas. Details of the weighting/expansion process are found in Appendix A.

SECTION 3 – SURVEY RESULTS

This section of the report presents the key findings of the survey. To align the sampled survey results with published numbers for the study area, the data were expanded to represent the number of employed residents of the metropolitan region and to correct for under-representation of some racial/ethnic groups in the sample. The expansion methodology, described in Appendix A, allows the proper representation of employed residents in each of the 11 jurisdictions in the survey area. The percentages presented in the results tables and figures show percentages expanded to the total working population, but also show the raw number of respondents (e.g., n=__) who answered the question. Note also that the term "respondent," when used in the document, reflects expanded data, unless otherwise noted. Other terms, such as "commuter," "employee," "worker," and "resident," also are used, when it is necessary or helpful to distinguish subsets of the total surveyed population.

The results in this section generally follow the order of sections in the survey questionnaire.

- 3-A Characteristics of the sample
- 3-B Commute patterns
- 3-C Telework
- 3-D Availability of and attitudes toward transportation options
- 3-E Awareness of commute advertising and services
- 3-F Awareness of use of commuter assistance resources
- 3-G Employer-provided commuter assistance services

Comparisons to Past SOC Surveys

Where relevant, survey results are compared for sub-groups of respondents. Survey results also are compared with corresponding data from the 2010, 2007, 2004, and 2001 SOC Surveys, where the comparison is notable. A comparison of key results from the five SOC surveys also is presented in Appendix E.

The 2013 survey surveyed residents of 11 jurisdictions. This also was the sample area for the 2010 and 2007 surveys, but the 2001 and 2004 surveys surveyed employed residents of 12 jurisdictions. Stafford County, VA, which was included in the 2001 and 2004 survey samples, was removed in 2007 because it was no longer part of the federally-designated COG non-attainment area. Thus, the sampled areas in 2013, 2010, and 2007 were not identical to the areas covered in the 2004 and 2001 surveys.

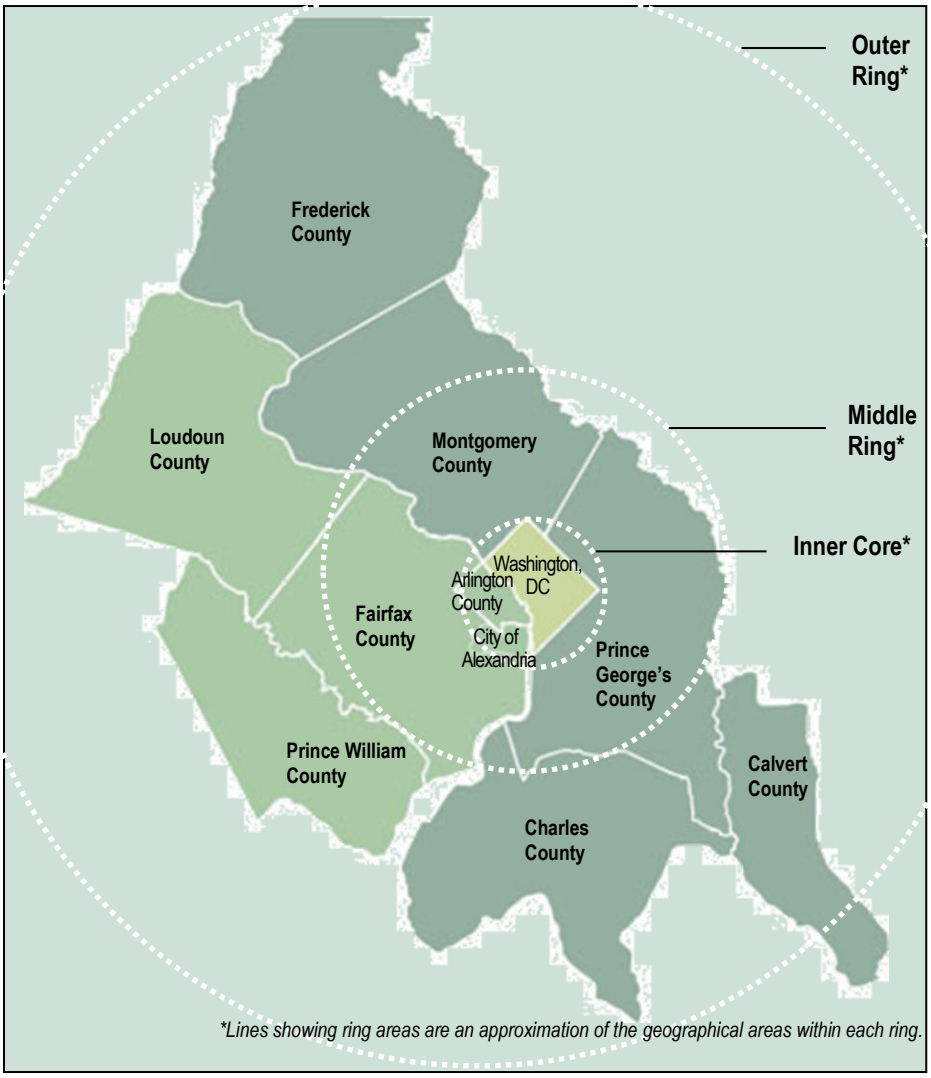
In 2007, COG examined the possible implications of the change in the survey area and concluded that eliminating Stafford County from the survey area did not represent a significant issue for comparison of 2007 results to results of the earlier surveys. This was primarily because Stafford County accounted for a very small proportion of the overall weighted sample. In 2004, Stafford County accounted for only 2.0% of the region's resident workers and an even smaller share, just 0.8%, of all workers destined for the 12-jurisdiction area.

COG compared key variables (e.g., travel mode, commute distance, telework percentage, etc.) for Stafford County with values for the 12-jurisdiction region. In most cases, Stafford County results were not statistically different from the regional averages. Thus, removing Stafford County would not have changed the overall regional results in 2004, even if Stafford had constituted a larger share of the total worker population of the region. In a few cases (e.g., travel distance, travel time), the results for Stafford were statistically different from the regional averages, but removing Stafford from the sample did not change the overall regional average significantly, due to the small contribution of Stafford's results to the regional average.

Geographic Analysis

The SOC analysis focused primarily on the region as a whole. However, for some questions, the analysis examined results for individual jurisdictions or other geographic sub-areas of the region. The primary sub-area categorization divided the region into three categories roughly representing concentric rings around the central core (Figure 1).

Figure 1
Geographic Sub-Areas – Inner Core, Middle Ring, Outer Ring



The Inner Core area includes the City of Alexandria, Arlington County, and the District of Columbia. The Middle Ring, surrounding the core, includes Fairfax, Montgomery, and Prince George's counties. The Outer Ring includes Calvert, Charles, Frederick, Loudoun, and Prince William counties.

3-A CHARACTERISTICS OF THE SAMPLE

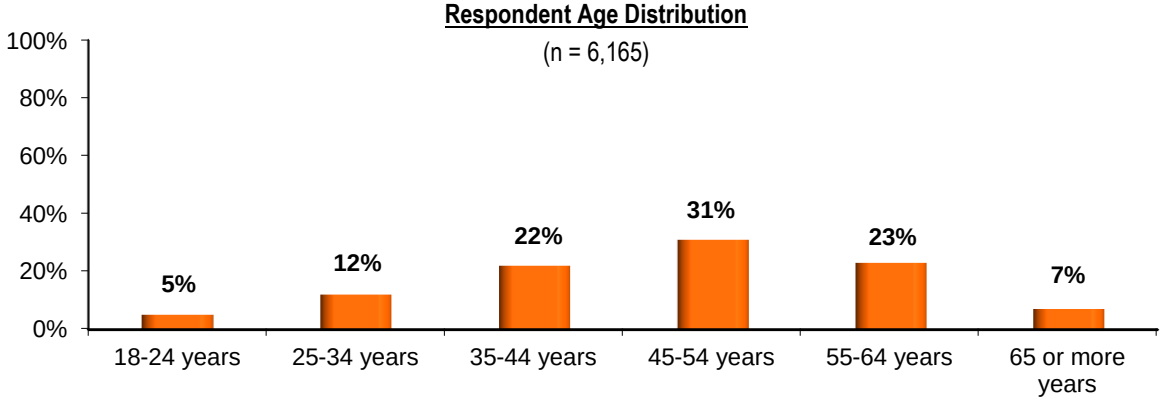
At the end of the survey interview, respondents were asked a series of questions about themselves, including: age, ethnic background, sex, income, household size, vehicle ownership, home and work locations, type of employer, size of employer, and occupation. These results are presented first, to define characteristics of the sample.

Demographic Characteristics

Age

As shown in Figure 2, more than half (53%) of respondents are between the ages of 35 and 54. About 17% are younger than 35 and 30% were 55 years or older.

Figure 2
Respondent Age Distribution
(n = 6,165)



Ethnic Background

As illustrated in Table 1, Caucasians and African-Americans represent the two largest ethnic groups of survey respondents, 50% and 25% respectively. Respondents who self-identified as Hispanic/Latino account for about 13% and Asians/Pacific Islanders represent 10% of the total.

Table 1
Ethnic Background
(n = 6,334)

Ethnic Group	Percentage	Ethnic Group	Percentage
White/Caucasian	50%	Asian	10%
African-American	25%	Other/Mixed	2%
Hispanic/Latino	13%		

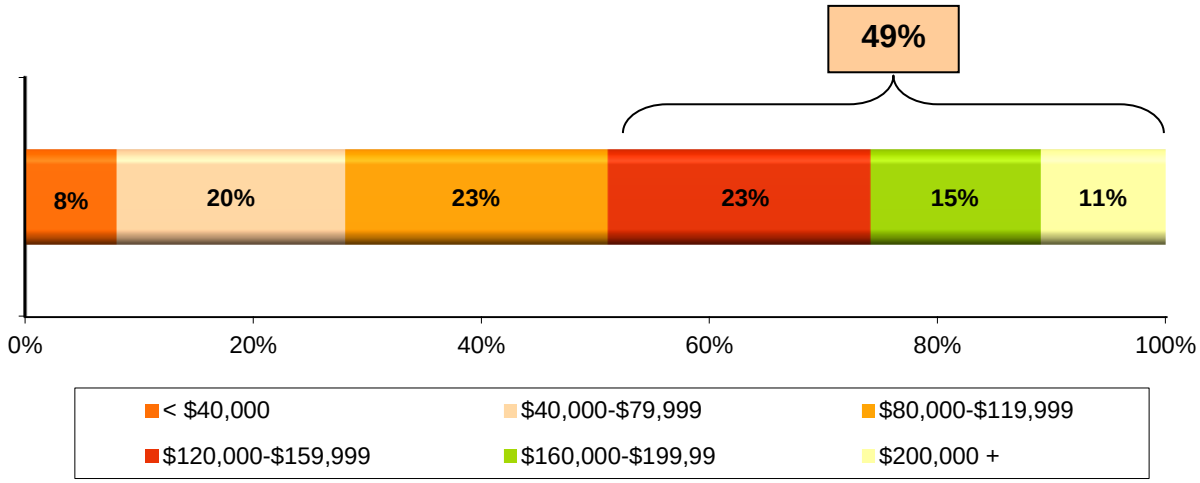
Sex

Most respondents are female (55%). This is essentially the same percentage as in the 2010, 2007, 2004, and 2001 SOC surveys.

Income

Figure 3 presents the distribution of respondents' annual household income. More than seven in ten reported incomes of $80,000 or more and almost half (49%) have incomes of $120,000 or more.

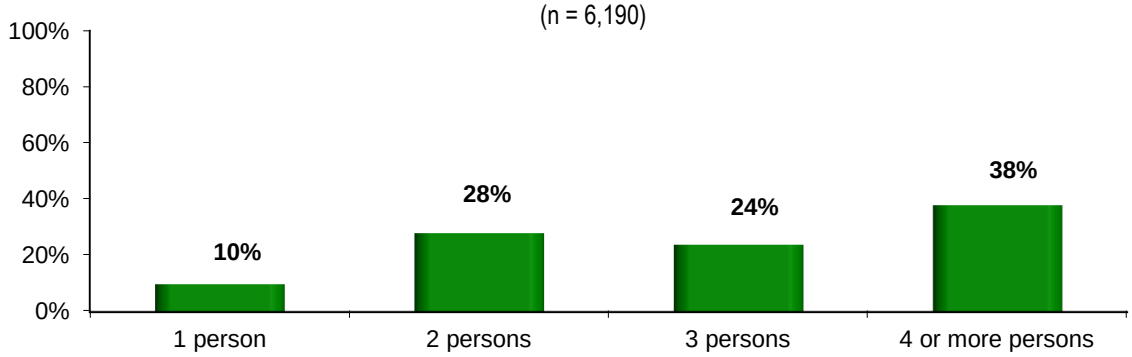
Figure 3
Annual Household Income
(n = 4,439)



Household Size and Composition

Ten percent of respondents said they are the only member of their household and just under three in ten (28%) respondents live with one other person (Figure 4). The remaining respondents live with at least two other household members. The majority of households are comprised of adults. Only 39% of respondents said their households include one or more children under the age of 18.

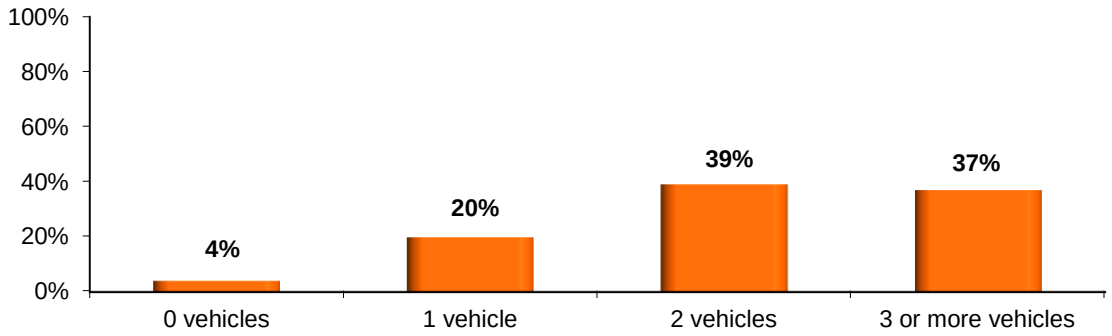
Figure 4
Household Size
(n = 6,190)



Household Vehicle Ownership

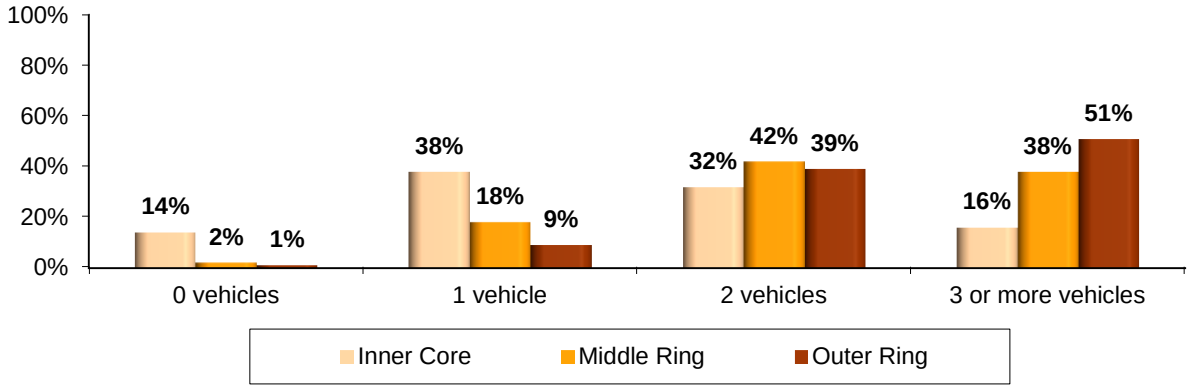
Only four percent of respondents said they have no household vehicle. Two in ten have one vehicle per household and 76% have two or more vehicles. These results are presented in Figure 5. Respondents reported an overall average of 2.2 vehicles per household.

Figure 5
Household Vehicles – Owned or Leased
(n = 6,205)



Vehicle ownership differs substantially, however, by where respondents live. As indicated by Figure 6, vehicle ownership is lower among respondents who live in the Inner Core than in either the Middle Ring or Outer Ring.[4] Fourteen percent of Inner Core respondents said they do not have a household vehicle, compared with only two percent of Middle Ring respondents and one percent of Outer Ring respondents.

Figure 6
Household Vehicles – All Respondents
By Home Area – Inner Core, Middle Ring, and Outer Ring
(Inner Core n = 1,686, Middle Ring n = 1,689, Outer Ring n = 2,830)



[4] Section 3 introduced the three geographic "ring" designations that were defined for the survey analysis. The Inner Core area includes the City of Alexandria, Arlington County, and the District of Columbia. The Middle Ring, surrounding the core, includes Fairfax, Montgomery, and Prince George's counties. The Outer Ring includes Calvert, Charles, Frederick, Loudoun, and Prince William counties.

Inner Core area respondents also are much less likely than are respondents in other areas to have two or more vehicles per household. But this is due in part to their smaller household sizes; only 25% of Inner Core respondents live in a household with three or more adult members (age 18 or older), compared with 42% of Middle Ring respondents and 40% of Outer Ring respondents.

Home and Work Locations

Table 2 presents the distribution of respondents by their home and work states and counties. About equal shares of respondents live in Maryland (44%) and Virginia (44%). The remaining 12% of respondents live in the District of Columbia. Because the survey only interviewed employed residents of the 11-jurisdiction area, no respondents live outside these areas.

Table 2
Home and Work Locations

State/County	Home Location* (n = 6,635)	Work Location** (n=6,629)
District of Columbia	**12%**	**31%**
Maryland Counties	**44%**	**29%**
Montgomery Co.	19%	15%
Prince Georges Co.	16%	9%
Frederick Co.	4%	3%
Charles Co.	3%	1%
Calvert Co.	2%	1%
Virginia Counties	**44%**	**37%**
Fairfax Co.	22%	19%
Prince William Co.	8%	3%
Arlington Co.	5%	7%
Loudoun Co.	6%	4%
Alexandria City	3%	4%
Other* **	**N/A**	**3%**

* Adjusted distribution allows for the proper representation of working households in each geographical area. Note that state totals might add to more than 100% due to rounding.

** Work location percentages for Maryland and Virginia include only counties in the COG 11-jurisdiction region. Maryland and Virginia locations outside this area are counted in the "other" category.

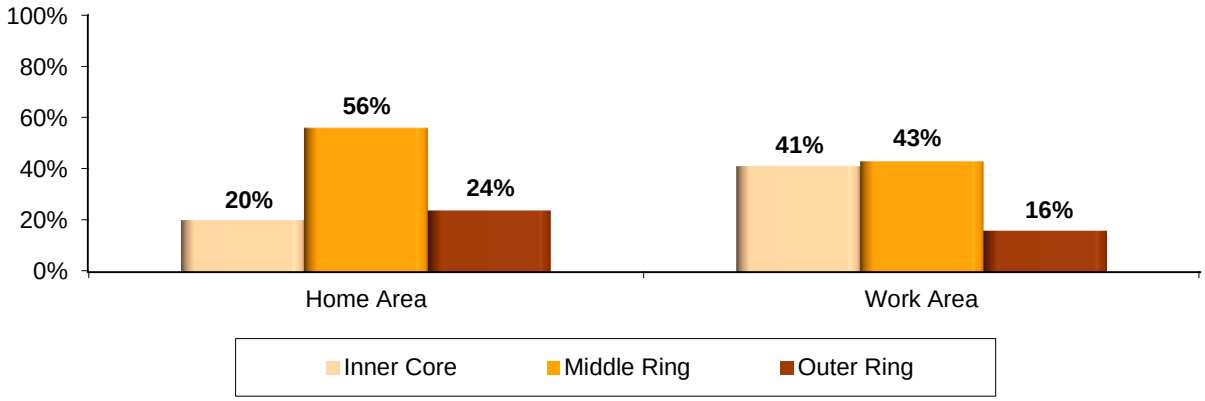
*** Each response in the "Other" category was mentioned by less than one percent of respondents.

Work locations are more evenly divided. The largest number of respondents work in Virginia (37%), but the District of Columbia and Maryland, with 31% and 29% of respondents respectively, are close behind in their share of employment.

Four jurisdictions account for residences of seven in ten respondents: Fairfax County (including Fairfax City and Falls Church) (22%), Montgomery County, MD (19%), Prince George's County, MD (16%), and the District of Columbia (12%). The top five jurisdictions represent eight in ten of the work locations: District of Columbia (31%), Fairfax County (19%), Montgomery County (15%), Prince George's County (9%), and Arlington County (7%).

Figure 7 presents the distribution of respondents' home and work locations by their "ring" location. More than half of respondents (56%) live in the Middle Ring. The remaining respondents are about evenly divided between the Inner Core (20%) and Outer Ring (24%). Work locations, by contrast, are divided primarily between the Inner Core (41%) and Middle Ring (43%). Only 16% of respondents work in an Outer Ring jurisdiction.

Figure 7
Home and Work Locations – Inner Core, Middle Ring, and Outer Ring
(Home area n = 6,335, Work area n = 6,313)



As Figure 7 indicates, most respondents work either in the geographic region where they live or in an area closer to the center of the region. Table 3 indicates that 81% of Inner Core respondents also work in the Inner Core. About six in ten Middle Ring respondents work in the sub-area and where they live 35% travel to the Inner Core. And half (49%) of Outer Ring respondents work in the Outer Ring, but nearly three in ten travel inbound to the Middle Ring and 23% travel to the Inner Core. Only a small share of respondents travel outbound to a more distant ring.

Table 3
Home and Work Locations – Inner Core, Middle Ring, Outer Ring

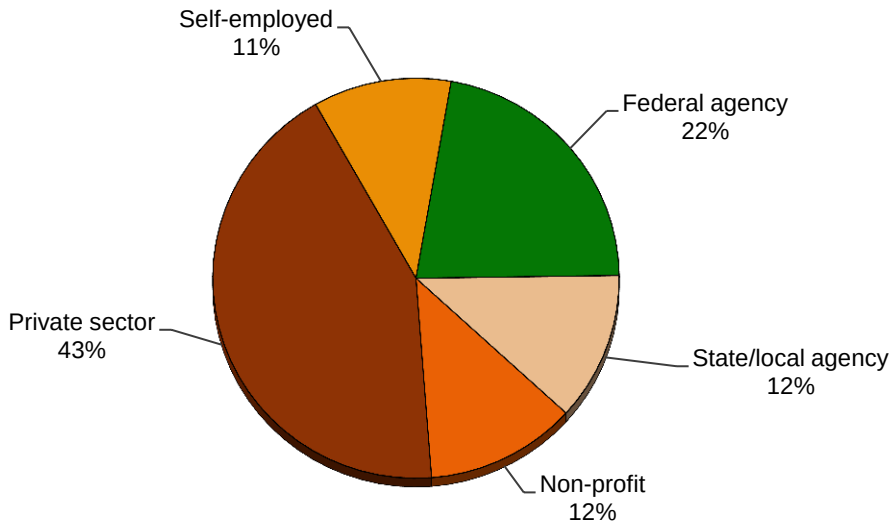
Home Area	Work Area		
	Inner Core	Middle Ring	Outer Ring
Inner Core (n = 1,720)	81%	17%	2%
Middle Ring (n = 1,724	35%	59%	7%
Outer Ring (n = 2,668)	23%	28%	49%

Employment Characteristics

Type and Size of Employer

Type – Respondents were asked for what type of employer they work and the number of employees at their worksites. These results are shown in Figure 8 and Table 4, respectively. Four in ten (43%) respondents work for a private sector employer. Federal government agencies employ 22% and state and local agencies employ 12%. About one in ten (12%) works for a non-profit organization and the remaining 11% are self-employed.

Figure 8
Employer Type
(n = 6,084)



Size – The majority of respondents work for employers that are either very small or very large (Table 4). Almost half (48%) work for firms with 100 or fewer employees. One-quarter (25%) work for employers that employ 1,000 or more employees.

Table 4
Employer Size
(n = 5,385)

Number of Employees	Percentage	Number of Employees	Percentage
1-25	27%	101-250	13%
26-50	10%	251-999	14%
51-100	11%	1,000+	25%

Occupations

Respondents represent many occupations, as shown in Table 5. About six in ten respondents work in a professional (41%) or executive/managerial occupation (20%). Other common occupations include administrative support (14%) and sales (6%).

Table 5
Occupation
(n = 5,756)

Occupation	Percentage	Income	Percentage
Professional	41%	Protective services	2%
Executive/managerial	20%	Military	1%
Administrative support	14%	Handlers, helpers, laborers	1%
Sales	6%	Transportation / equipment	1%
Technicians/support	4%	Private household occupations	1%
Service	4%	Other*	2%
Precision craft, production	3%		

* Each response in Other category was mentioned by fewer than one percent of respondents.

3-B COMMUTE PATTERNS

An important section of the survey questioned respondents on their weekly commute patterns. Commute questions in the survey included:

- Number of days worked per week
- Current commute mode
- Commute distance
- Use of alternative work schedules
- Alternative mode characteristics
- Length of time using current alternative modes and changes in commute mode
- Reasons for using current commute modes

Number of Days Worked Per Week and Work Hours

Full-Time vs Part-Time

More than eight in ten (85%) respondents work full-time, defined as 35 or more hours per week. The remaining 15% are employed part-time. Respondents are assigned to work an average of 4.9 days per week. Some respondents work one or more weekend days, so the average number of weekdays worked is slightly less, 4.7 days per week. And respondents travel an average of 4.5 weekdays per week to a work location outside their homes.

Work at Home

About nine percent of the total survey respondents said they never commuted to a work location outside their homes. The majority of these respondents (6% of total respondents) said they are self-employed and have no other work location. The remaining three percent of respondents said they telework from home every day they work. These two groups of respondents were not asked further questions about commute patterns, but were included in questions about awareness of commute advertising and demographics. Additionally, respondents who telework five days per week were asked questions about their telework experience.

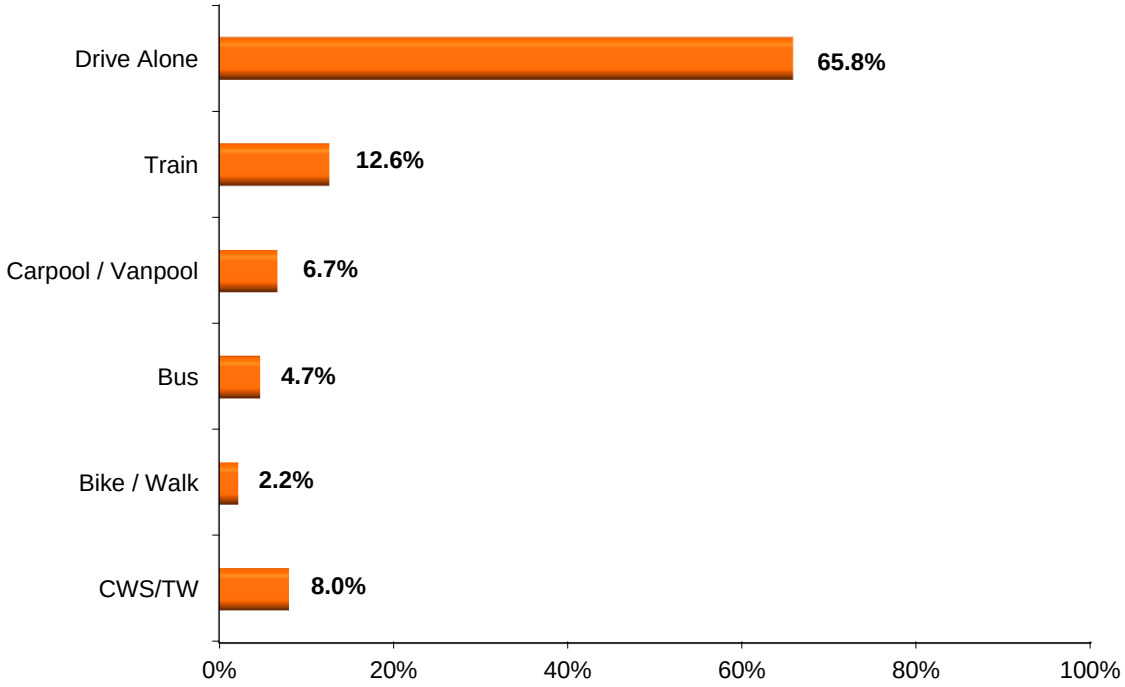
Current Commute Mode

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. Figures 9 through 11 present several different views of modal distribution.

Weekly Trips by Mode in 2013

Figure 9 presents mode shares as a percentage of weekly commute trips. 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.

Figure 9
Weekly Commute Trips by Modes – 2013
(n = 5,882)



Commuters make less than two-thirds (65.8%) of weekly commute trips by driving alone. Transit accounts for more than nearly one in five trips; 12.6% of trips are made by train and 4.7% are made by bus. Respondents use carpool or vanpool for 6.7% of weekly commute trips and make a small share (2.2%) by bike or walking.

Telework and compressed work schedule days off eliminate eight percent of weekly work trips. As noted earlier, these "trips" actually are not made, but they are officially assigned as part of the work week, so are included in this distribution.

If the telework and compressed schedule days off are excluded, to estimate the "on the road" mode share, 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:

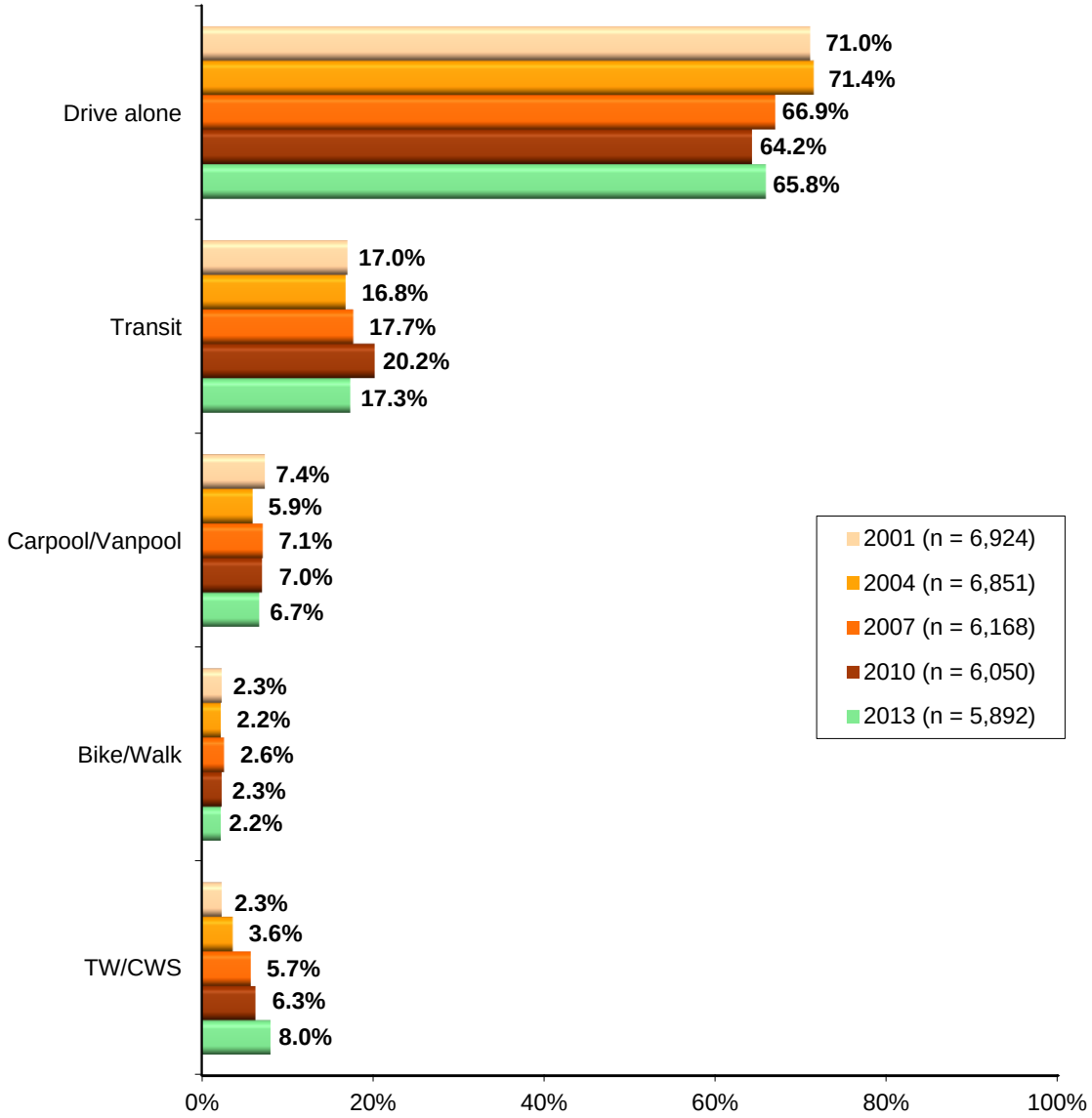
- Drive alone 71.5%
- Train 13.7%
- Carpool / vanpool 7.3%
- Bus 5.1%
- Bike/walk 2.4%

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

Figure 10 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. The change from 2010 to 2013 is not statistically significant.

Use of telework/compressed work schedules continued the upward trend observed since the 2001 SOC survey; the share of weekday trips eliminated by these modes has more than tripled over the past 12 years, from 2.3% of weekday commute trips to 8.0% in 2013. Transit lost mode share between 2010 (20.2%) and 2013 (17.3%), but maintained the same share of trips as in 2001, 2004, and 2007. The carpool/vanpool and bike/walk mode shares have remained essentially constant since 2001.

Figure 10
Percentage of Weekly Trips by Mode – 2013, 2010, 2007, 2004, and 2001
(Including telework and compressed schedules)

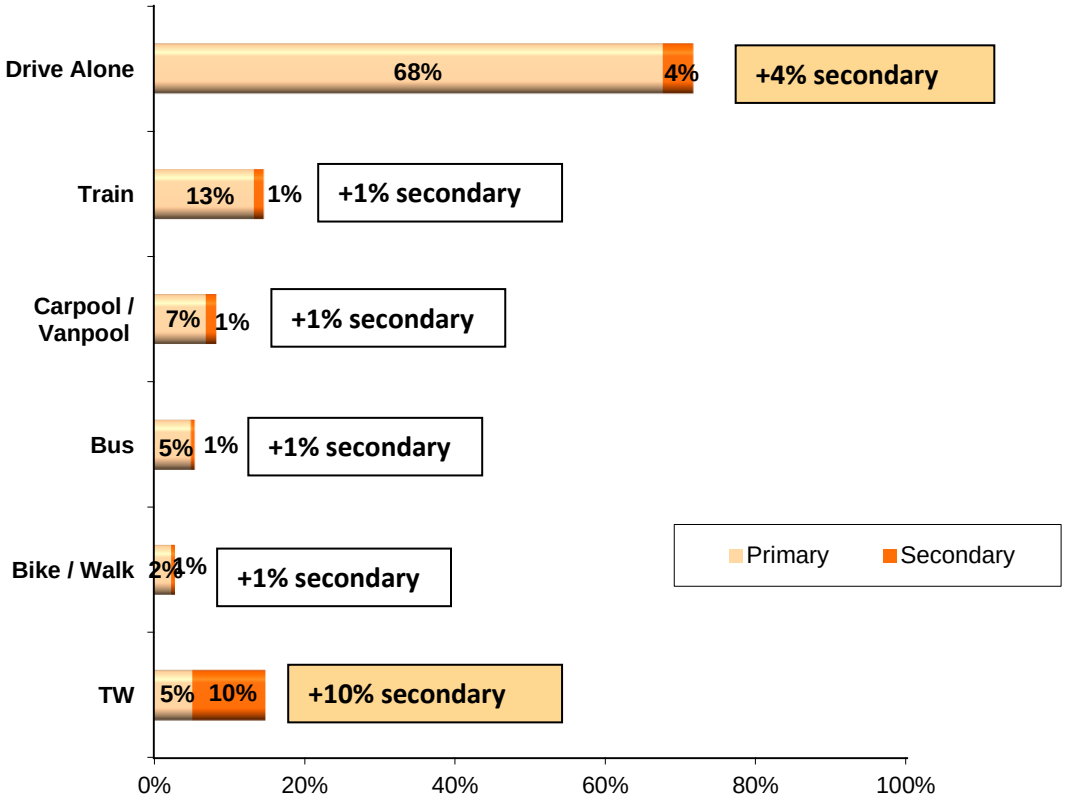


Frequency of Current Mode Use

Figure 11 shows mode split for 2013 as the percentage of respondents who used each mode as their "primary" mode, defined as the mode used most days per week. The figure also shows the percentages of respondents who used each mode as secondary mode, meaning they use it one or two days per week, in addition to another mode that they use most days of the week.

Primary Mode – Most respondents work five or more days per week, so primary mode generally equates to use three or more days per week. But for a small percentage of respondents who work fewer than five days 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, the most common primary mode is drive alone, used by 68% of respondents. The second most common primary mode, used by 13% of respondents, is train. Seven percent said they primarily carpool, "casual" carpool (slug), or vanpool. Bus is the primary mode of five percent of respondents. Two percent of respondents said they primarily bike or walk and five percent said they primarily telework.

Figure 11
Primary Modes and Secondary Modes
(n = 5,892)



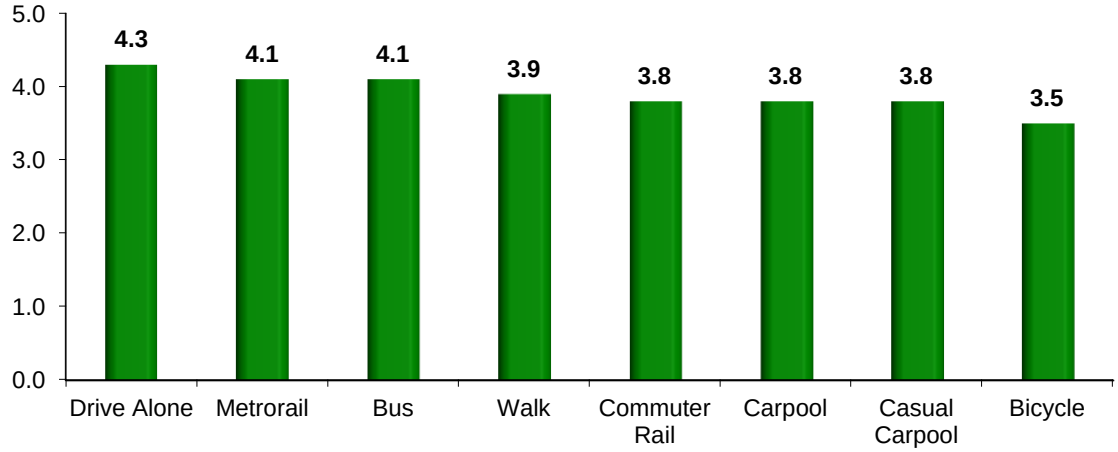
Secondary Modes – Figure 11 also shows the percentage of respondents who used the modes as their secondary mode, typically one or two days per week. The mode with the greatest secondary use is telework; 10% of respondents said they telework one or two days per week. Four percent of respondents drive alone as a secondary mode. All other modes were used by just one percent of respondent as a secondary mode.

Mean Days Used

Figure 12 shows the average number of days each mode/mode group was used. All of modes are used at least three days per week on average. Driving alone, Metrorail, and bus all are used at least four days per week. 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.

Figure 12
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

Figure 13 shows relative use of individual modes within the four travel alternative mode groups displayed in Figure 11: train, carpool/vanpool, bus, bike/walk.

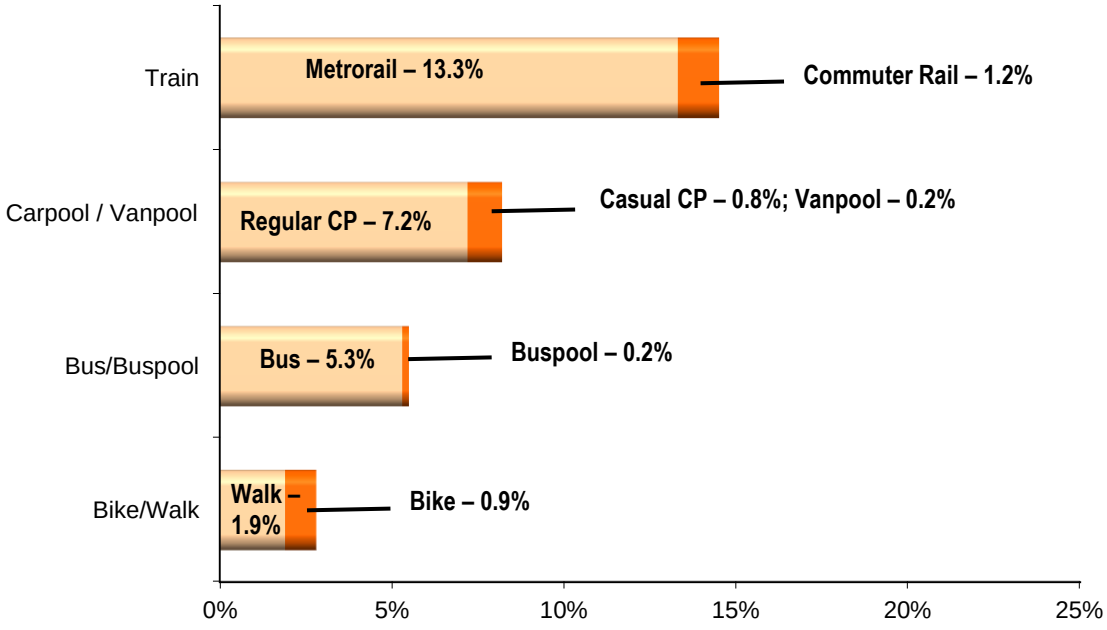
Train – The train mode group is comprised of Metrorail and three commuter rail companies: MARC (Maryland commuter rail), Virginia Railway Express (VRE), and Amtrak. Metrorail dominates this category, with 92% of train riders using this mode (13.3% of total 14.5% train ridership). The balance of train ridership is in commuter rail.

Carpool/Vanpool – Among respondents who carpool, regular carpooling dominates. Nine in ten carpool trips are in regular carpools (7.2% of total 8.0% carpool use). The remaining carpool trips are made in casual carpools or "slugs." A very small share of this mode group (0.2% of 8.2% total) is made by vanpool.

Bus – Regular, scheduled bus / shuttles accounts for nearly all bus use. Only 4% of bus ridership is in buspools (0.2% of total 5.5% bus use).

Bike/Walk – Walking accounts for about two-thirds of the bike/walk mode group (1.9% of 2.8% bike/walk use).

Figure 13
Composition of Alternative Mode Groupings
Modes Used 1+ Days per Week
(n = 5,892)



Length of Time Using Mode

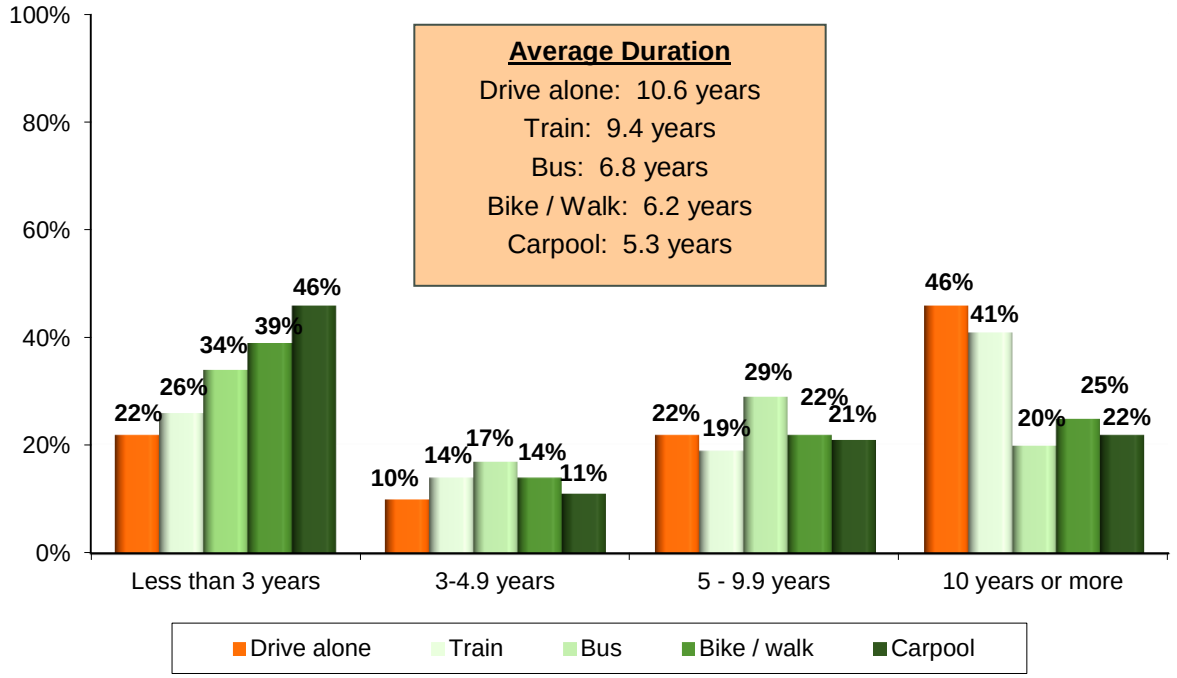
Respondents were asked how long they have used each mode they reported using one or more days per week. Results are shown in Figure 14 for commuters who drive alone, ride a train, ride a bus, bike/walk, and carpool.

Commuters who drive to work have used this mode an average of 10.6 years, considerably longer on average than have commuters who use alternative modes. Only 22% of drive alone commuters said they started using this mode within the past three years; 46% have used the mode for 10 years or more and more than two-thirds have driven alone for five or more years.

Alternative mode users have used these modes for shorter times on average, but a substantial portion of alternative mode users still are long-term users. Four in ten train riders, a quarter of bike/walk commuters and two in ten bus riders and carpoolers have used these modes for 10 or more years.

Carpoolers are most likely to have started using this mode recently; 46% of commuters who carpool started using this mode within the past three years. A third of respondents who ride a bus and four in ten bike/walk commuters started these modes within the past three years.

Figure 14
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. Tables 6 through 11 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 (Table 6).

Table 6
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

Table 7 shows primary mode distribution for respondents of the four primary ethnic groups. Hispanic respondents are the most likely to drive alone and are more likely to carpool/vanpool than are respondents in other groups. African-American respondents are statistically more likely to use the train than are either White or Hispanic respondents.

Table 7
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 (Table 8). Use of these modes was consistent for respondents in the other age groups. Carpool/vanpool was used at equal rates by all age groups.

Table 8
Primary Mode by Age Group
(Note: row totals might not add to 100% because telework is not included)

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

Table 9 presents primary mode by annual household income. Respondents who have incomes of less than $30,000 report substantially lower share of driving alone than do other income groups. Solo driving is equally common among both moderate and high-income respondents. Bus ridership drops substantially at incomes of $160,000 or more, but has similar use rates among respondents with incomes of between $30,000 and $159,999. When the lowest-income respondents are excluded, use of other modes is essentially the same for most income categories.

Table 9
Primary Mode by Annual Household Income
(Note: row totals might not add to 100% because telework is not included)

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

Finally, Table 10 shows the primary mode distribution by the number of vehicles in the respondent's household. Not unexpectedly, respondents who do not have a car available are considerably less likely to drive alone and considerably more likely to commute by bus or train than are those with one or more vehicles. As the number of vehicles in the household increases from zero to one and from one to two, driving alone increases and use of bus and train decline significantly. Carpooling is fairly equal, however, regardless of the number of vehicles available.

Table 10
Primary Mode by Number of Vehicles in the Household
(Note: row totals might not add to 100% because telework is not included)

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 Table 11, respondents' commute modes differ by where they live. About seven in ten respondents in Virginia and Maryland primarily drive alone to work, while only four in ten (38%) District of Columbia residents primarily use this mode for commuting. District residents are significantly more likely to use bus, train, bike, or walk to work than are respondents living in other states. The mode shares for Maryland and Virginia residents are statistically the same for all modes.

Table 11
Primary Mode by State of Residence and State of Employment
(Note: row totals might not add to 100% because telework is not included)

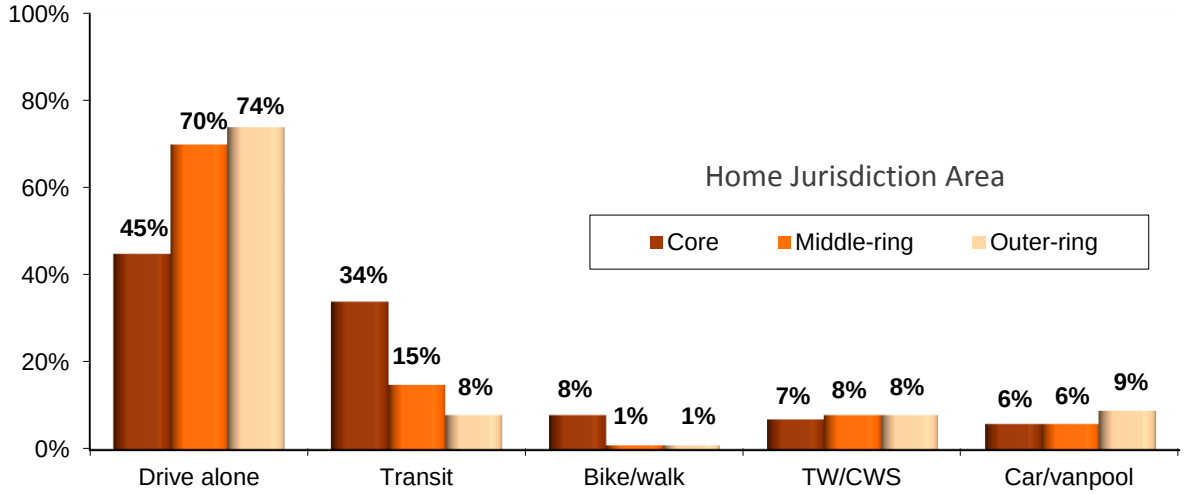
State	(n=__)	Primary Commute Mode				
		Drive Alone	Carpool/ Vanpool	Bus	Train	Bike / Walk
State of Residence						
District of Columbia	577	38%	7%	12%	29%	10%
Maryland	2,878	74%	6%	3%	12%	1%
Virginia	2,880	69%	8%	5%	10%	2%
State of Employment						
District of Columbia	1,794	41%	11%	8%	33%	4%
Maryland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

Employment State – Table 11 also displays Primary Mode by state of employment. Respondents who work in the District of Columbia drive alone to work at about half the rate of those who work in Virginia or Maryland. District workers are twice as likely to carpool or ride a bus as are Maryland and Virginia workers. Train use among respondents working in the District also is dramatically higher than for other respondents.

Residence Ring – Table 11 shows that mode use differs by respondents' home state. But it differs even more by how close the respondent lives to the center of the region. Figure 15 displays primary mode as a function of respondents' residence "ring."

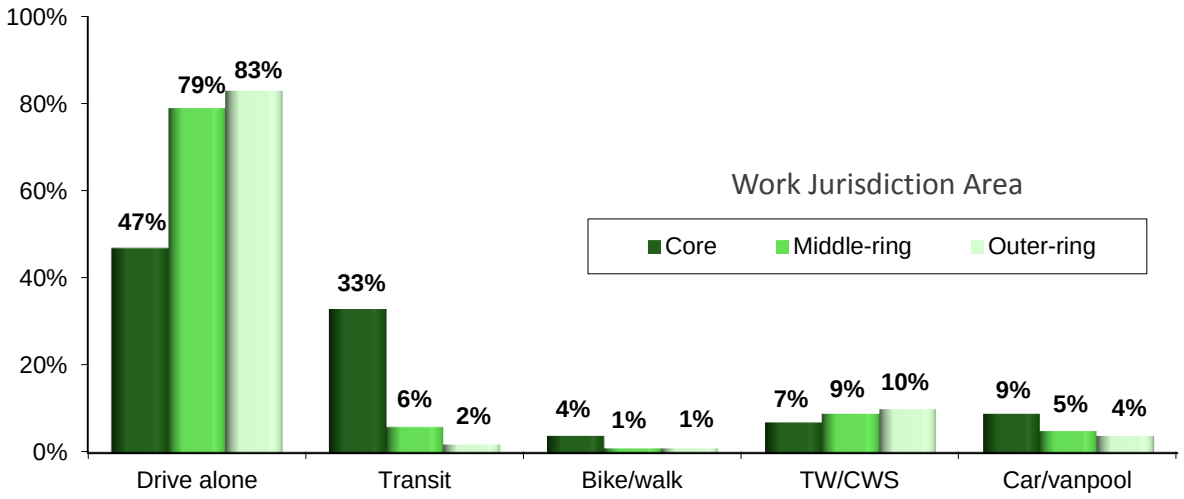
Fewer than half (45%) of commuters who live in the Inner Core area, which includes the District of Columbia and two Virginia jurisdictions, drive alone. This is much lower than the drive alone rates for the Middle Ring (70%) and the Outer Ring (74%) and only slightly higher than the 38% drive alone share noted in Table 11 for the District of Columbia alone. Transit use in the Inner Core is nearly as high as it is for the District of Columbia alone. This suggests that the two Virginia jurisdictions included in the Inner Core are more similar to the District of Columbia in travel mode characteristics than they are to other Virginia jurisdictions.

Figure 15
Primary Mode by Residence "Ring"
(Inner Core n = 1,592, Middle Ring n = 1,617, Outer Ring n = 2,699)



Employment Ring – Figure 16 displays primary mode as a function of respondents' employment location, in the ring designations defined earlier. The mode pattern for employment locations is similar to that for the residence rings, but more pronounced. Fewer than half (47%) of commuters who work in the Inner Core area drive alone. This is dramatically lower than the drive alone rates for the Middle Ring and Outer Ring; in both of these areas about eight in ten workers drive alone. Transit use is high in the Inner Core, but nearly non-existent for commute trips to Middle Ring and Outer Ring worksites. This pattern obviously reflects both the availability of transit infrastructure in the Inner Core areas as well as the inbound focus of transit service during peak commuting hours.

Figure 16
Primary Mode by Employment "Ring"
(Inner Core n = 2,485, Middle Ring n = 1,934, Outer Ring n = 1,470)

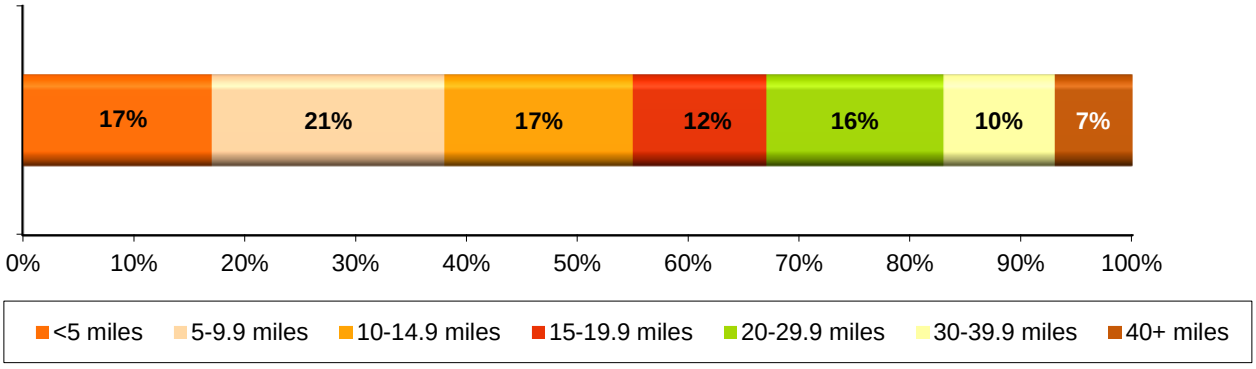


Length of Commute

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. Figure 17 presents the distribution of distance. More than a third of respondents (38%) commuted fewer than 10 miles one-way. Three in ten (29%) travel between 10 and 19 miles. A small percentage (7%) travel 40 or more miles.

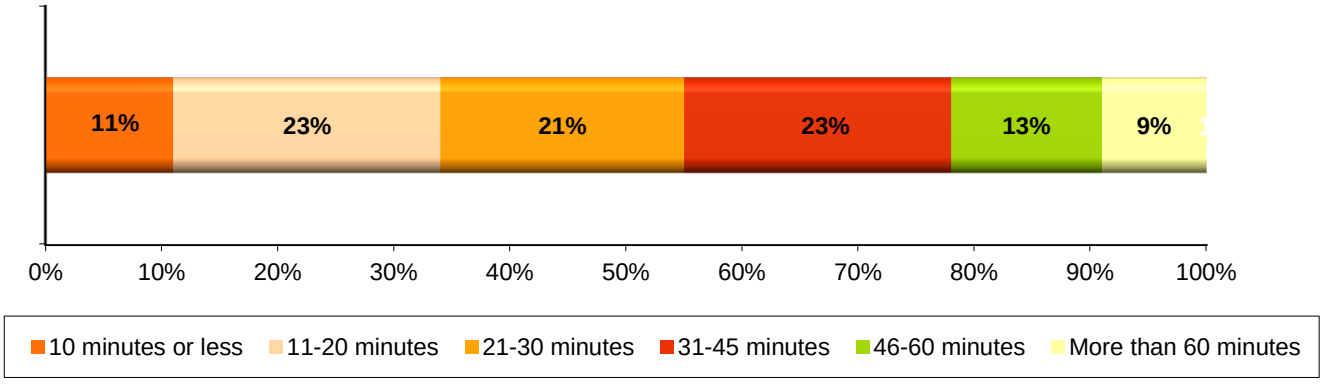
Figure 17
Commute Distance (miles)
(n = 5,122)



Commute Travel Time

Survey respondents commute, on average, about 36 minutes one way. As shown in Figure 18, a third (34%) of respondents commute 20 minutes or less and 44% commute between 21 and 45 minutes. About two in ten (22%) travel more than 45 minutes, with nine percent traveling more than one hour one-way.

Figure 18
Commute Distance (minutes)
(n = 5.605)



The 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 the 35 minutes measured in 2007 and just two minutes longer than the 34 minutes observed in 2004.

Commute Distance By Mode

Survey respondents' travel distance varies by the type of transportation they used to commute (Table 12). Commuter rail riders travel the farthest, 32.0 miles one-way. Commuters who carpool and drive alone also travel farther than the 16.0 mile regional average. Commuter rail, bus, and Metrorail riders spend the longest time commuting, at least 47 minutes one-way.

Table 12
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.

Commute Distance By Home and Work Location

Survey respondents' travel distance also varied by where they live and where they work (Table 13). Respondents who live in the Inner Core travel the shortest distance to work, an average of 9.1 miles one-way. Respondents who live in the Middle Ring commute considerably farther, 15.3 miles. And respondents who live in the Outer Ring travel an average of 23.5 miles one-way.

Commute distances by work area are less varied. Respondents who work in the Inner Core travel an average of 15.0 miles. Middle Ring workers travel slightly farther, 15.6 miles. Respondents who work in the Outer Ring travel the farthest, 20.2 miles one way.

Inner Core area residents have the shortest travel times; they travel an average of 30 minutes one-way. But, while the Inner Core respondents travel fewer minutes to work than do other respondents, they do not have proportionately shorter travel times; Middle Ring residents travel only six minutes longer than do Inner Core residents and Outer Ring residents travel just 12 minutes longer. This is likely due to the higher transit and bike/walk use among Inner Core respondents; transit trips, while short in distance, tend to be longer in time.

By contrast with the home area results, respondents who work in the Inner Core have the longest commute times, an average of 41 minutes one-way. Middle Ring workers and Outer Ring workers commute 33 minutes and 31 minutes, respectively. The higher travel times for Inner Core workers likely are due to their higher use of transit for commuting and the higher congestion they would encounter in their commute.

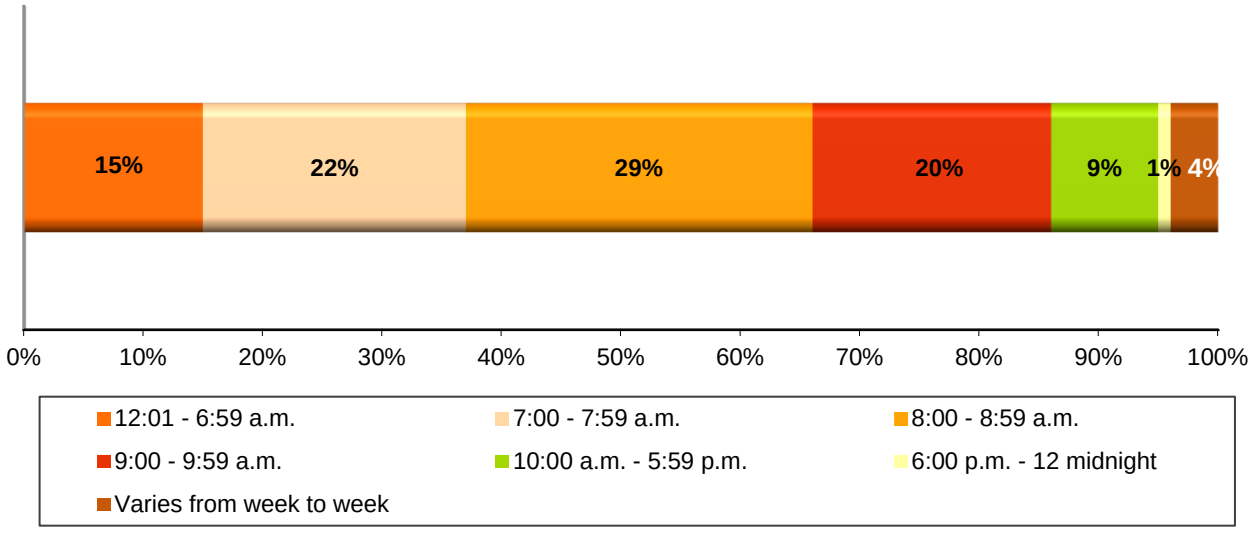
Table 13
Commute Distance by Home and Work Area

Primary Commute Mode	Average Distance (mi.)		Average Time (min.)	
	(n=__)	Average	(n=__)	Average
Home Area				
Inner Core	1,320	9.1 mi.	1,532	30 min.
Middle Ring	1,363	15.3 mi.	1,525	36 min.
Outer Ring	2,439	23.5 mi.	2,548	42 min.
Work Area				
Inner Core	2,090	15.0 mi.	2,396	41 min.
Middle Ring	1,720	15.6 mi.	1,831	33 min.
Outer Ring	1,294	20.2 mi.	1,359	31 min.

Work Arrival Time

More than half of all respondents typically arrive at work between the hours of 7:00 a.m. and 9:00 a.m. (Figure 19). But another 20% arrive between 9:01 a.m. and 10:00 a.m., so they would be traveling during the peak commuting time. Fifteen percent arrive at work before 7:00 a.m.

Figure 19
Arrival Time at Work
(n = 5.595)

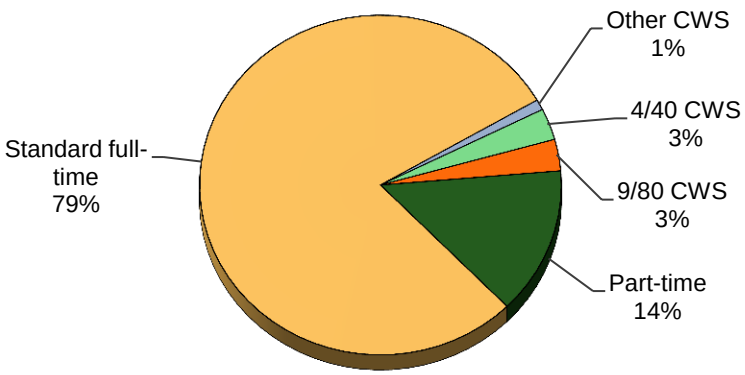


Non-Standard Work Schedules

Non-Standard Work Schedules Used

Figure 20 shows the distribution of work schedules for respondents who said they commute to an outside work location. Eight in ten (79%) of these respondents said they work a "standard" full-time schedule, defined as five or more days per week. Fourteen percent of respondents work part-time and the remaining eight percent work a compressed work schedule, in which they work a full-time work week, but in fewer than five days per week. Three percent work a 9/80 schedules (80 hours over nine days in two weeks) and three percent work a 4/40 schedule, with four 10-hour days per week.

Figure 20
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 Table 14, 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.

Table 14
Primary Mode by Use of Non-Standard Schedules
(Note: row totals might not add to 100% because telework is not included)

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

The average number of occupants in respondents' carpools and vanpools is 2.4 and 10.8 people, respectively. Overall average pool occupancy is 2.7. 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 carpoolers 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

Table 15 presents how carpoolers, vanpoolers, and transit riders travel to where they meet their rideshare partners or where they start their transit trip. About a third (34%) of respondents walk to the meeting place.

Table 15
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%

Sixteen percent said they are picked up at home by the carpool or vanpool driver and six percent always drive the pool vehicle or ride with a household member, so they leave together. Thirteen percent of respondents ride transit to the meeting point and two percent said they are dropped off, for example by a spouse or other household member.

The remaining three in ten respondents (29%) said they drive to the meeting point, such as a Park & Ride lot or the home of a carpool rider, but leave their cars at that location. This is significant, because a large proportion of auto emissions are produced during the first few miles of a vehicle trip, when the engine is cold. Even though these trips generally are short, they must be reflected in an air quality analysis.

Distance to Alternative Mode Meeting Point

As shown in Table 16, most access trips to alternative mode meetings points are short. Respondents travel an average of 2.9 miles to the meeting point. Six in ten (61%) respondents travel one mile or less; these are primarily bus and Metrorail riders who walk to the stop or station. About one-quarter (23%) of respondents said they travel between two and five miles. Only 17% of respondents travel more than five miles.

Table 16
Distance Traveled from Home to Alternative Mode Meeting Point
(n = 1,094)

Distance	Percentage
1 mile or less	61%
2 to 3 miles	14%
4 to 5 miles	9%
6 to 10 miles	11%
11 miles or more	5%
Average distance	*2.9 miles*

Mode Shifts and Mode Shift Motivations

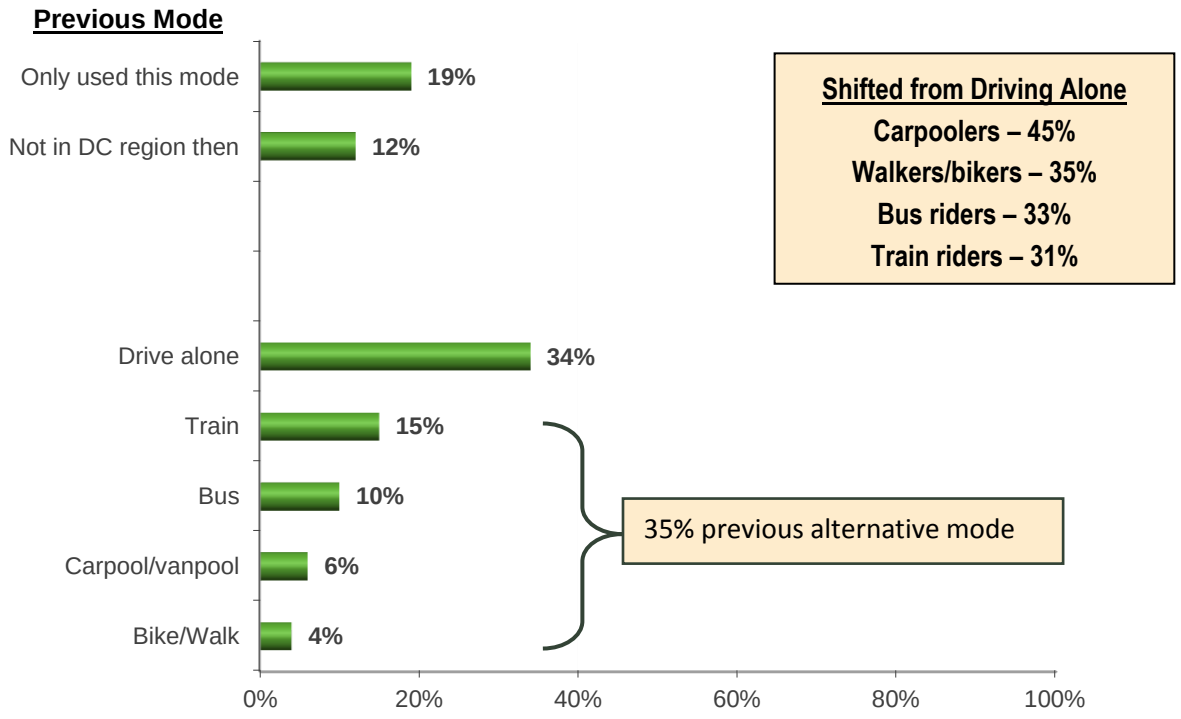
Modes Used Before Starting Current Alternative Modes

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 Figure 21, 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 remaining respondents reported their previous primary mode. About a third (34%) of current alternative mode users made a shift from driving alone and 35% shifted from a different alternative mode. Fifteen percent of alternative mode users shifted from train and 10% previously used a bus. Six percent carpooled or vanpooled before switching to their current alternative mode and four percent previously rode a bicycle or walked.

The inset box in the figure shows the share of previous drive alone use for current alternative mode users. Carpoolers are more likely than are other mode users to have shifted from driving alone; 45% said they were driving alone before starting to use this mode. About a third of other alternative mode users shifted from driving alone.

Figure 21
Previous Mode of Current Alternative Mode Users:
Respondents who have Used Current Alternative Mode Three Years or Less
(n = 686, multiple responses permitted)



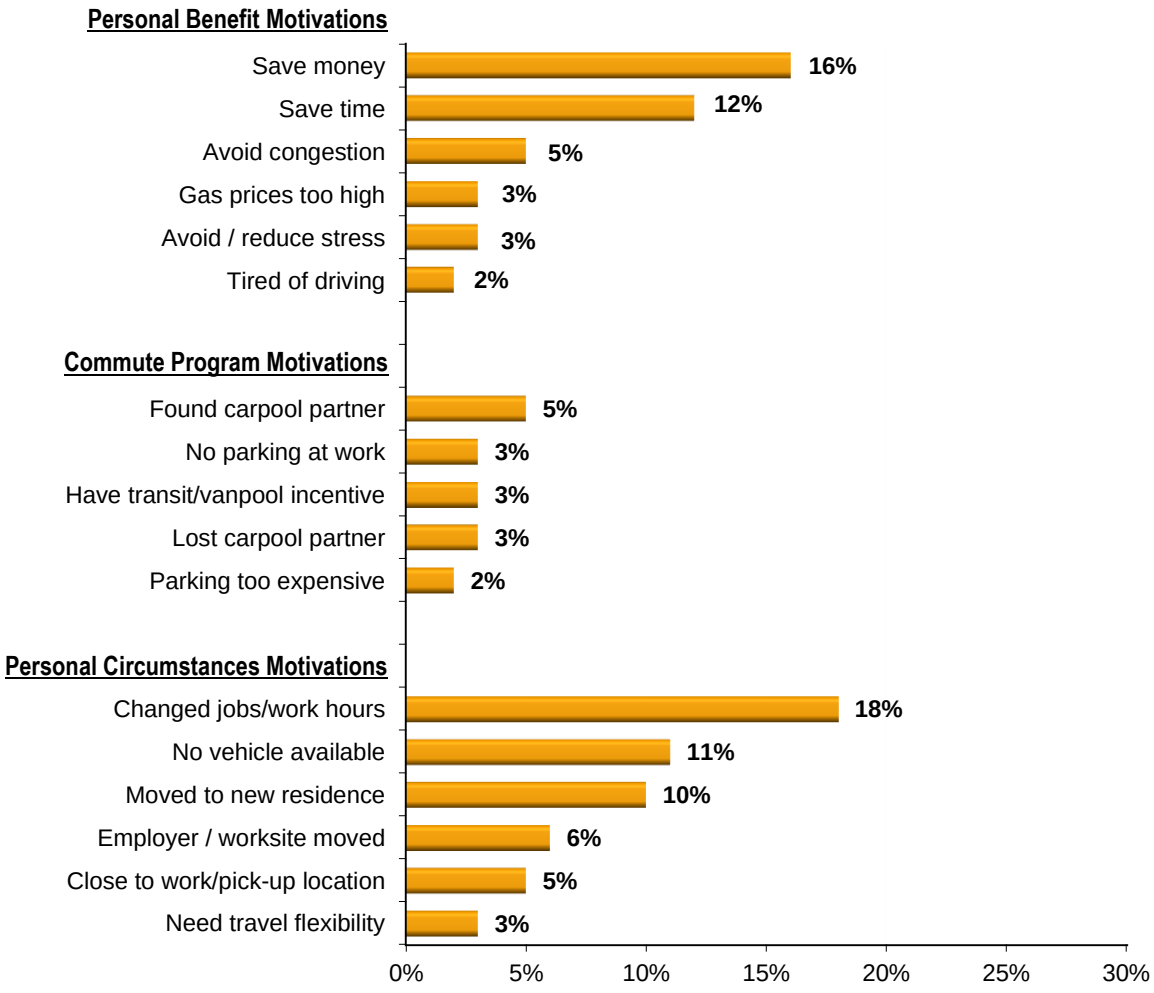
Reasons for Using Alternative Modes

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 Figure 22, divided into three broad categories of motivations:

- Personal benefits – benefits the respondent would expect to receive by using an alternative mode
- Commute 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. The most common personal benefit reasons are to save money (16%) or save time (12%). In the commute program category five percent cited that they found a carpool partner. Personal circumstances reasons included changed jobs or work hours (18%), no vehicle available (11%), moved to new residence (10%), employer / worksite moved (6%), or live close to work or to transportation pick-up location (5%).

Figure 22
Motivations to Start Using Current Alternative Mode
(Note: Scale extends only to 30% to highlight difference in responses)
(n = 576, multiple responses permitted)



3-C TELEWORK

The SOC survey also explored respondents' telework experience. For purposes of this survey, teleworkers were defined as "*wage and salary employees who at least occasionally work at home or at a telework or satellite center during an entire work day, instead of traveling to their regular work place*."

This section presents these results for 2013 and, in some tables, results for 2010, 2007, 2004, and 2001, but a few points on the definition of telework should be noted.

The definition presented above was used in the 2004, 2007, 2010, and 2013 SOC surveys. But the definition was changed in 2004 to limit telework to arrangements that reduced vehicle trips; the 2001 definition had interpreted telework more broadly. To enable a valid comparison of later years' surveys with the 2001 data, the 2001 telework results were revised to exclude respondents who would not have been counted as teleworkers under the current definition. These adjusted data are used in all tables that show 2001 results.

The 2001 SOC definition described teleworkers as, "*wage and salary employees who at least occasionally work at home or at a location other than their central work place during their normal work hours*." This definition would have included workers who work at client sites outside of the Washington region and workers, such as sales or equipment repair staff, who travel to multiple customer locations during the course of the day. The 2001 definition also could have included respondents who work a portion of the normal workday at home, for example while waiting for a delivery, but travel to the regular workplace for another part of the day. These situations are not generally considered telework for transportation-related purposes, thus the telework definition was rewritten in 2004 to exclude these cases and they would not have been counted as telework in 2013, 2010, 2007, or 2004.

Current and Potential Telework

Respondents who Currently Telework

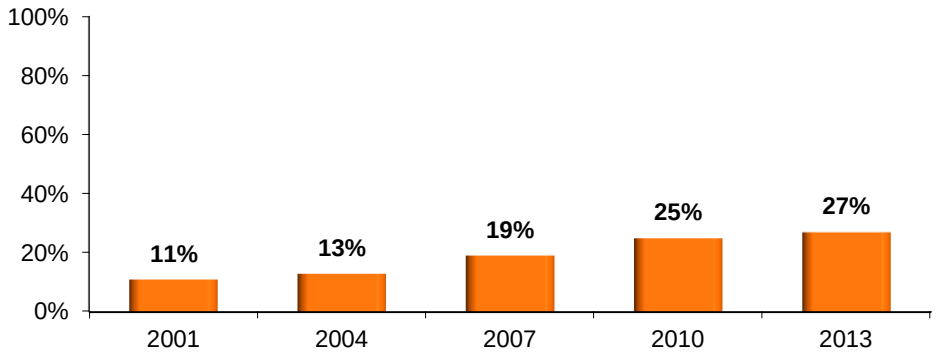
Respondents were read the above definition of telework and asked if they would consider themselves teleworkers based on this definition. One-quarter (25%) of all regional workers said they telework, either regularly or occasionally. This represented about 675,000 workers region-wide.

But teleworkers accounted for a higher percentage, 27%, of all regional commuters, that is, workers who travel to a main work location on non-telework days. Using this base of commuters excludes workers who are self-employed and for whom home is their only workplace. These workers do not have an outside work location, thus never make commute trips. The calculation of teleworkers as a proportion of commuters reflects a more realistic picture of the role of telework in eliminating commute trips, thus is relevant for assessing travel and air quality benefits of telework.

The 27% telework percentage represents a steady growth over the telework percentage from the 2001 survey, when only 11% of employees teleworked. The percentage growth also equals significant growth in the total number of teleworkers, as shown below:

Year	Number of teleworkers
2001	290,000
2004	318,000
2007	456,000
2010	600,000
2013	675,000

Figure 23
Percentage of Commuters who Telework – 2001, 2004, 2007, 2010, 2013
(2001 n = 6,924, 2004 n = 6,851, 2007 n = 6,168, 2010 n = 6,050, 2013 n = 5,892)

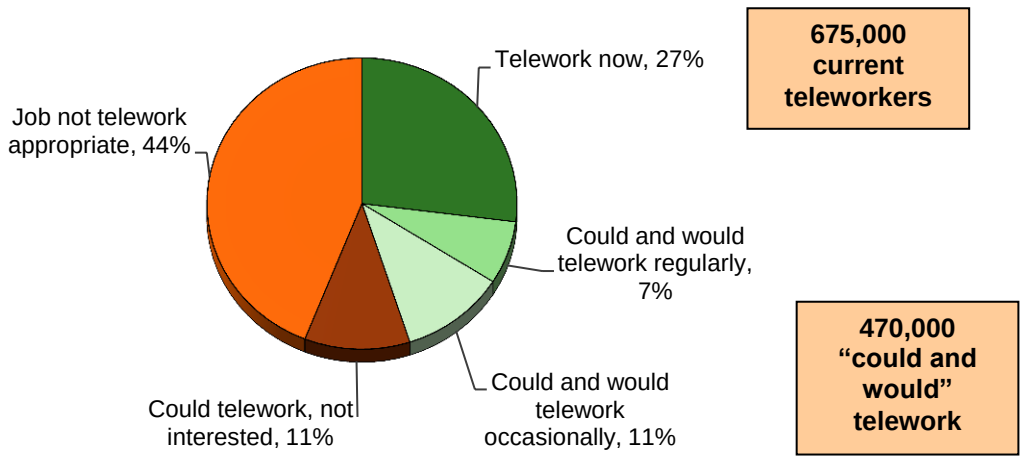


Interest in Telework

Commuters who work at a location outside their homes and who do not telework now were asked if their job responsibilities would allow them to work at a location other than their main work place, at least occasionally. Approximately 39% said it would be possible. These respondents were then asked if they would want to telework. More than six in ten said they would be interested in telework on either an occasional basis (38%) or a regular basis (26%). These interested respondents equal about 25% of non-teleworkers and 18% of all commuters.

These results suggest that even as the number of teleworkers has grown in the Washington metropolitan region, additional telework potential exists. Figure 24 summarizes the telework status of all respondents who are "commuters," that is, not self-employed/work at home full-time.

Figure 24
Telework Status Distribution
(n = 5,892)



About 675,000 regional commuters (27%) currently telework. An additional 18% of commuters "could and would" telework, that is, they have job responsibilities that could be done away from the main work place and they would be interested in teleworking, if given an opportunity. These commuters represent about 470,000 potential teleworkers. The remaining respondents said they would not be interested in teleworking (11%) or that their job responsibilities could only be performed at the main workplace (44%).

Table 17 presents the results shown above, with additional comparisons for current and potential telework percentages measured in 2010, 2007, and in 2004. The percentage of current plus potential telework has grown since 2004, from 29% to 45%.

Table 17
Summary of Current and Potential Telework
Respondents who are not Self-Employed/Work at Home

Telework Status	2013 SOC Percentage (n = 5,892)	2010 SOC Percentage (n = 6,050)	2007 SOC Percentage (n = 6,168)	2004 SOC Percentage (n = 6,896)
Currently teleworking	**27%**	**25%**	**19%**	**13%**
Not teleworking	**73%**	**75%**	**81%**	**87%**
- Job responsibilities allow telework and INTERESTED in telework ("could and would")	18%	21%	24%	16%
- Job responsibilities allow telework, but NOT INTERESTED in telework	11%	9%	6%	6%
- Job responsibilities would NOT allow telework	44%	45%	52%	65%

Interestingly, the percentage of commuters who said their jobs are incompatible with telework dropped, from 65% in 2004 to 45% in 2010. Because it seems unlikely that the composition of jobs changed substantially in the region, these results suggest a shift in commuters' ability, or perception of their ability, to perform their work at home or another location away from their primary work location. It appears that a larger share of commuters believe they could telework, at least occasionally. This could be related to increasing availability of communication and computer technology, such as broadband internet, lower cost telephone options, and computer networking, or perhaps from greater understanding of telework options and a broader definition of what responsibilities are "telework-compatible."

Telework by Personal Characteristics

Telework is not distributed equally by demographic group. Table 18 compares the incidence of telework by respondents' sex, ethnic group, age, income, commute distance, and home and work areas. The third column shows the percentage of each demographic group who telework today (e.g., 26% of men and 27% of women telework now). The last column shows the percentage of commuters in the group who "could and would" telework if given the opportunity (e.g., additional 29% of women would telework). Note that this should be compared against the 18% of all commuters in the region who "could and would" telework.

Table 18
Teleworkers by Demographic and Travel Characteristic

Demographic Group	All Commuters		
	(n=__)*	Percentage Who Currently Telework	Percentage who "could and would" Telework**
Sex			
Female	3,280	27%	18%
Male	3,035	26%	18%
Ethnic Group			
White	4,404	30%	18%
Asian	391	31%	**20%**
African-American	1.136	22%	**20%**
Hispanic	383	19%	16%
Age			
Under 25 years	189	6%	**20%**
25 – 34	664	25%	**22%**
35 – 44	1,317	30%	**21%**
45 – 54	1,879	28%	15%
55 or older	2,059	26%	15%
Income			
Less than $30,000	209	5%	18%
$30,000 – $59,999	532	8%	15%
$60,000 – $99,999	888	18%	**22%**
$100,000 – $139,999	1,259	26%	**21%**
$140,000 – $179,999	839	34%	16%
$180,000+	698	42%	**23%**

* All respondents in the group, both teleworkers and non-teleworkers

** Respondents whose job responsibilities would allow telework and who would be interested in telework

Some demographic groups telework more than do others. For example, 30% of Whites telework, compared with only 22% of African-Americans and 19% of Hispanics. Telework appears to increase with age up to the 35-44 years old group, peaking at 30%, then decline as age increases further. And telework increases as income increased; 26% of workers with household incomes between $100,000 and $139,999 telework, compared with only about five percent of workers with incomes below $30,000 and eight percent of workers with incomes between $30,000 and $59,999. Four in ten (39%) respondents with annual household incomes of $180,000 or more telework.

As shown in Table 18 (cont.), below, telework also increases with increasing commute distance. Only 18% of respondents who live less than five miles from work telework, while nearly four in ten (37%) respondents who commute 40 miles or more telework. There are no significant differences in telework by home: Inner Core, Middle Ring, and Outer Ring, but respondents who work in the Inner Core and Middle Ring telework at a higher rate than do respondents who work in the Outer Ring.

Table 18 (cont.)
Teleworkers by Demographic and Travel Characteristics

Demographic Group	All Commuters		
	(n=__)*	Percentage Who Currently Telework	Percentage who "could and would" Telework**
Commute Distance			
Less than 5 miles	814	18%	17%
5 – 14 miles	1,765	25%	20%
15 – 39 miles	1,973	27%	20%
40 miles +	570	37%	18%
Home Area			
Inner Core	1,588	26%	19%
Middle Ring	1,611	27%	18%
Outer Ring	2,693	25%	18%
Work Area			
Inner Core	2,478	29%	20%
Middle Ring	1,925	27%	17%
Outer Ring	1,467	19%	20%

* All respondents in the group, both teleworkers and non-teleworkers

** Respondents whose job responsibilities would allow telework and who would be interested in telework, at least occasionally

Table 18 also illustrates which groups have the greatest potential for future telework. That is, in which groups would non-teleworkers be most likely to telework in the future, if given the opportunity? The last column in the table shows percentages of commuter who believe their job responsibilities would allow telework and who would like to telework. This is the group referred to as "could and would."

In general, the groups with the highest current use of telework show the greatest additional potential and groups with low current telework also show low potential. But some groups have noticeably higher potential than the 18% average among. These include middle-income and high-income respondents ($100,000 or more annual income) and respondents who are younger than 45 years of age.

Telework by Employment Characteristics

The survey data also showed some differences in the telework and potential telework distribution by employment characteristics. These results are presented in Table 19.

Table 19
Teleworkers by Employment Characteristics

Demographic Group	All Commuters		
	(n=__)*	Percentage Who Currently Telework	Percentage who "could and would" Telework**
Employer Type			
Federal agency	1,417	38%	19%
Non-profit org.	625	27%	**23%**
Private employer	2,519	26%	19%
Self-employed	721	24%	7%
State/local agency	764	13%	16%
Employer Size			
1 – 25	1,427	17%	16%
26 – 100	1,146	18%	19%
101 – 250	651	25%	**23%**
251 – 999	798	30%	**23%**
1,000+	1,345	37%	20%
Occupation			
Technicians/related support	281	39%	**27%**
Professional	2,270	35%	17%
Executive, manager	1,234	34%	**24%**
Sales	346	21%	16%
Administrative support	711	16%	21%
Protective service	146	11%	11%
Precision craft, production	202	7%	10%
Service	241	6%	13%

* All respondents in the group, both teleworkers and non-teleworkers

** Respondents whose job responsibilities would allow telework and who would be interested in telework, at least occasionally

Federal agency (38%) employees telework at a rate (38%) much higher than the regional average and much higher than do employees who work for non-profit agencies (27%) private employers (26%), and state/local agencies (13%).

Generally, use of telework increased with increasing employer size. Nearly four in ten (37%) respondents who work for employers with 1,000 or more employees telework and 30% of employers with between 251-999 employees telework, compared with only 18% of respondents who work for employers with 26-100 employees and 17% of respondents who work for employers with 1 to 25 employees.

Some occupations also have higher telework rates than average, including technicians (39%), professionals (35%), and executive/managerial (34%). Common occupations with below average telework rates include sales (21%), administrative support (16%), protective services (11%), precision craft/ production (7%), and other service (6%).

Table 19 also illustrates the potential for telework among these employment groups. Again, the relative percentages of non-teleworkers who could and would telework if given the opportunity generally mirrors the relative percentages of respondents who telework in each group. A few groups do have higher potential than the 28% average for all non-teleworkers, however.

Two groups with sizeable telework potential are respondents who work for non-profit organizations and employees of mid-sized firms (employers with between 100 and 999 employees). About a quarter of commuters in these groups said they could and would telework if given the opportunity.

Sources of Telework Information

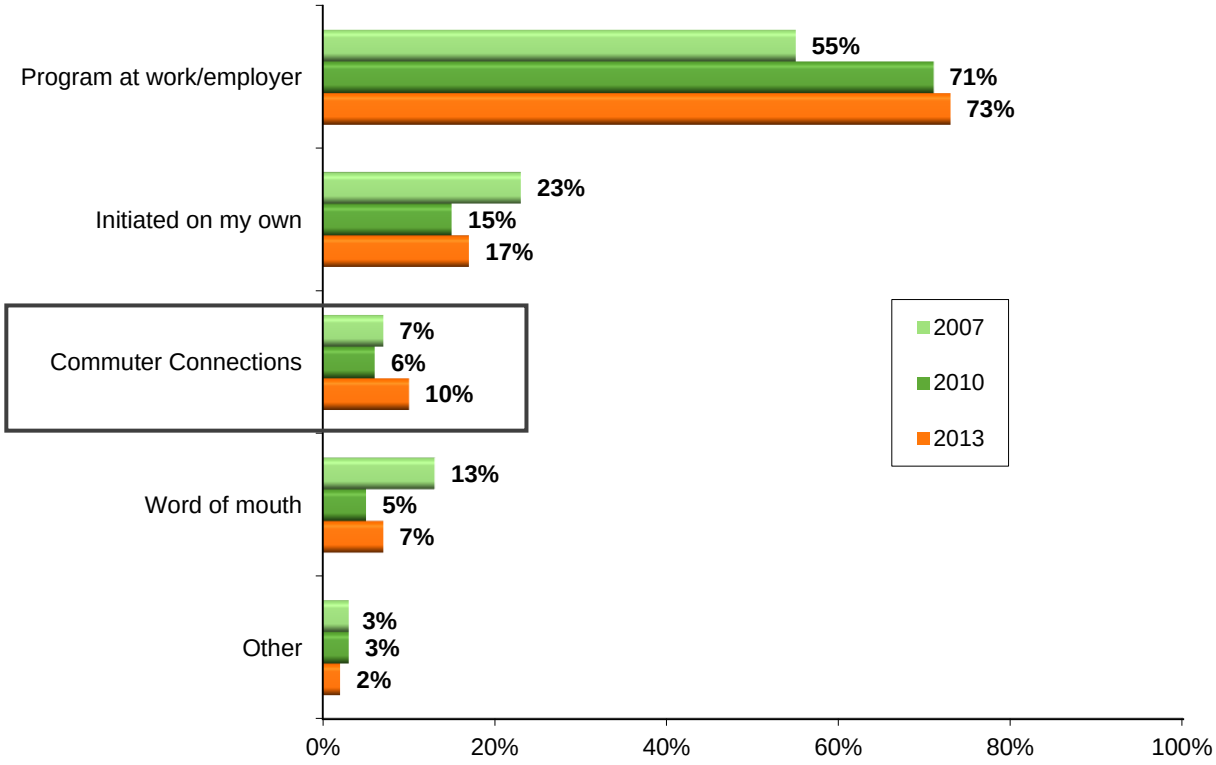
Respondents who telework were asked how they learned about telework and if they received telework information from Commuter Connections or MWCOG, either from Commuter Connections or from an MWCOG web site. The most frequently mentioned sources are shown in Figure 25.

The largest source of information, by far, is “special program at work/employer,” named by more than seven in ten (73%) of respondents. This percentage is about the same as in the 2010 survey (71%), but considerably higher than in the 2007 survey, in which only 55% of teleworkers cited their employer as the source of information, and higher still compared with the 34% who gave this answer in 2004.

Seventeen percent said they “initiated the request on their own” and seven percent said they learned of telework through “word of mouth.” These two sources retained their importance since 2010, although they have declined as telework information sources since 2007, when they were named by 23% and 13%, respectively

Ten percent of teleworkers said they received telework information directly from Commuter Connections or MWCOG. This is a slightly higher percentage than mentioned Commuter Connections/MWCOG in each of the previous three SOC surveys: 2010 (6%), 2007 (7%), and 2004 (5%).

Figure 25
Sources of Information About Telework – 2007, 2010, 2013
(n = 1,571, multiple responses permitted)



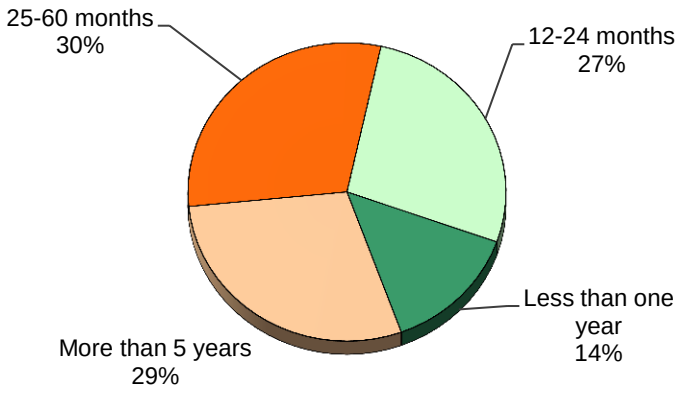
Telework Patterns

Respondents who said they telework, at least occasionally were questioned about their telework characteristics including: length of time teleworking, use of informal or formal telework arrangement, telework location, frequency of telework, and access mode to telework locations outside the home.

Length of Time Teleworking

As illustrated in Figure 26, slightly more than four in ten (41%) respondents who telework started teleworking within the past two years and 14% started within the past year. Three in ten (29%) said they have been teleworking more than five years. On average, respondents have been teleworking about 59 months. This is a slightly longer duration than was estimated in 2010 (56 months) and 2007 (53 months) and much longer than the 42 months average measured in the 2004 SOC survey. In the 2004 SOC survey, nearly half (49%) of teleworkers started teleworking within the past two years and only 19% said they had been teleworking more than five years.

Figure 26
Length of Time Teleworking
(n = 1,545)



Formal or Informal Telework Arrangement

Teleworkers were asked if they telework under a formal program or through an informal arrangement with a supervisor. Respondents who do not telework were asked if their employer has a telework program, even though the respondent does not use it.

As shown in Figure 27, 51% of all respondents said their employers allow some telework, either under a formal program (30%) or an informal arrangement (21%). Slightly less than half (49%) of respondents said their employers do not have any telework program or that they don't know about any program.

Figure 27
Formal and Informal Telework Arrangements
All respondents and Teleworkers vs Non-Teleworkers
(All workers n = 5,892, Teleworkers n = 1,530, Non-teleworkers n = 4,039)

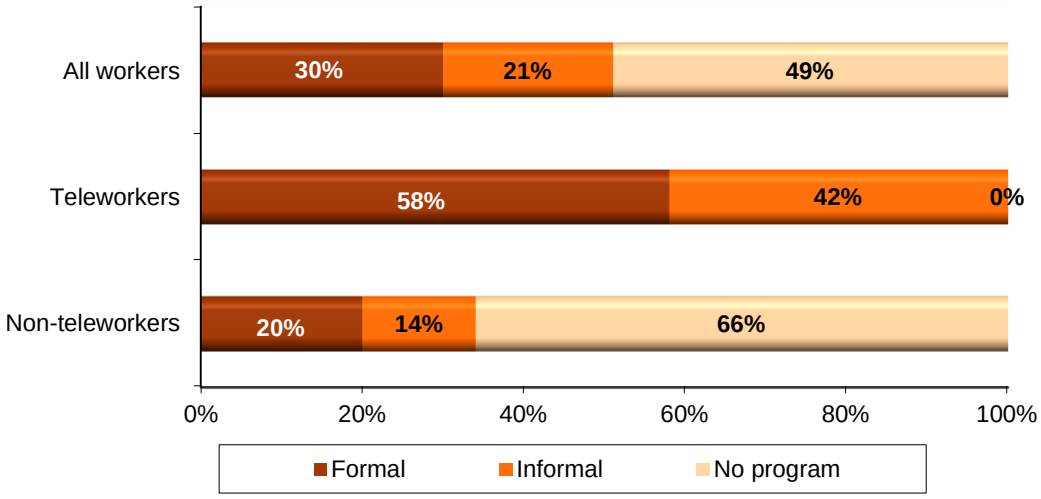
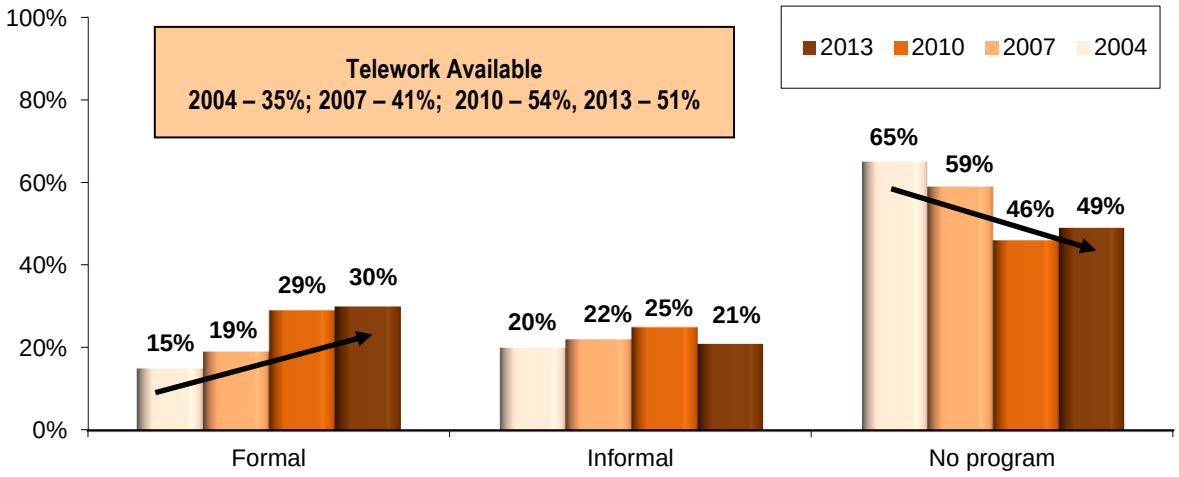


Figure 27 also presents the distribution of telework availability among respondents who currently telework and those who do not. Teleworkers are much more likely than are other respondents to work for an employer with a formal telework program. Nearly six in ten (58%) teleworkers said they telework under a formal arrangement and 42% telework under an informal arrangement with their supervisor.

By contrast, only 20% of non-teleworkers said their employers have a formal telework program and 14% said telework is permitted under informal arrangements. Two-thirds (66%) said the employer has no program or they don't know if a program exists.

Telework Arrangements 2004 through 2013 – Figure 28 shows the incidence of telework arrangement in 2004, 2007, 2010, and 2013. As is clear from the figure, the share of employers that offer or permit telework increased substantially between 2004 and 2010, but leveled off between 2010 and 2013. In the 2004 SOC survey, only 35% of respondents noted that their employer allowed telework. In 2007, the share had risen to 41%. By 2010, more than half of respondents said their employer offered some telework option. The percentage of employers that permit telework fell slightly in 2013. The growth has primarily been in the share of formal programs. In 2004, telework arrangements were more often informal, while in 2010 and 2013, the proportions had reversed and formal telework arrangements predominated.

Figure 28
Telework Arrangements – 2004, 2007, 2010, 2013
(2004 n = 6,896, 2007 n = 6,168, 2010 n = 5,854, 2013 n = 5,892)



Telework Arrangement by Employer Type – The availability of telework arrangements varied widely by respondents' employer types, as illustrated in Table 20.

Formal programs are most common among respondents who work for a federal government agency. Nearly seven in ten (67%) respondents who work for federal agencies said their employer has a formal program, compared to only about 23% of respondents who work for non-profit organizations, 18% who work for private employers, and 21% who are employed by state/local agencies. Respondents who work for non-profit organizations or private employers are most likely to have informal telework. More than a third of non-profit employees and a quarter of private sector employees said their employers permit informal telework. State/local government agencies are least likely to permit telework under any arrangement. Only one-third (35%) of these respondents said their employer allow employees to telework.

Table 20
Formal or Informal Telework Arrangements
By Employer Type

Program Type	Federal Agencies (n = 1,417)	State/local Agencies (n = 764)	Non-profit Organizations (n = 626)	Private Employers (n = 2,519)
No telework program / Don't know if program exists	23%	**65%**	42%	56%
Telework permitted	73%	35%	58%	44%
Formal program	**67%**	21%	23%	18%
Informal arrangement	10%	14%	**35%**	**26%**

Telework Arrangement by Employer Size – Telework arrangements also varied by the number of employees at respondents' worksites. These results are presented in Table 21.

Table 21
Formal or Informal Telework Arrangements
By Employer Size

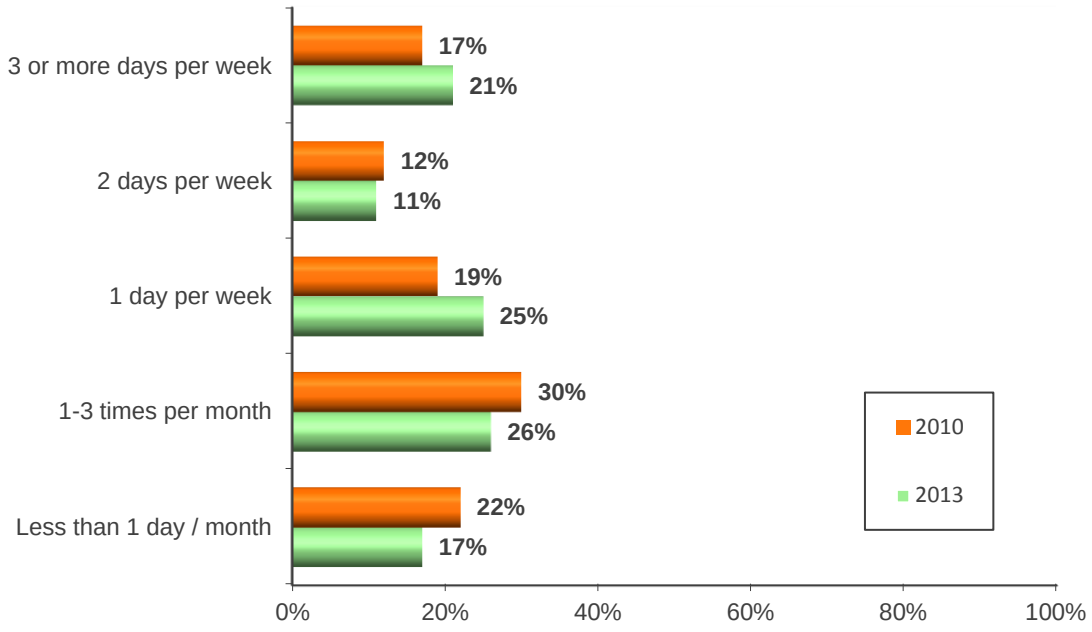
Program Type	1-50 Employees (n = 1,975)	51-100 Employees (n = 598)	101-250 Employees (n = 651)	251-999 Employees (n = 798)	1,000+ Employees (n = 1,345)
Formal program	10%	21%	28%	37%	**55%**
Informal arrangement	22%	19%	28%	24%	17%
No program	**68%**	**60%**	**44%**	39%	29%

Respondents who work for large employers are most likely to have access to a telework program and to have access to a formal program. Seven in ten of these respondents said their employer has a formal program (55%) or permits informal telework (17%). By contrast, only three in ten respondents who work for employers with 50 or fewer employees have access to either formal (10%) or informal (22%) telework.

Telework Frequency

The frequency with which respondents telework is detailed in Figure 29. About 17% of respondents who telework do so infrequently, either for special projects (8%) or less than once per month/only in emergencies (9%). One-quarter (26%) said they telework a few times each month. Nearly six in ten (57%) said they telework at least one day per week. On average, teleworkers use this arrangement about 1.4 days per week. This overall average frequency represents an increase from the 1.3 days per week average observed in the 2010 SOC survey.

Figure 29
Frequency of Telework – 2010 and 2013
(n = 1,559)



Telework Locations

The overwhelming percentage (99%) of teleworkers said they telework exclusively from home. The remaining one percent named another telework location, such as a satellite office, library or community center, or Telework Center.

Teleworkers who telework from locations outside their homes travel an average distance of 17.3 miles to these locations. A large majority (84%) of these respondents drive alone to the telework location. The remaining 16% use an alternative mode.

3-D AVAILABILITY OF AND ATTITUDES TOWARD TRANSPORTATION OPTIONS

The third major section of the State of the Commute Survey examined the availability of transportation options, such as transit, and respondents' attitudes toward these options.

Public Transportation

Respondents who work outside their homes were asked if bus and/or train service was available in the areas where they live and where they work. Respondents also were asked how far their homes are from the nearest bus stop and the nearest train station.

Transit Companies Operating

Table 22 presents the results for the first question. As shown, eight in ten (80%) respondents said that some form of public transit is available in their home area. Half (50%) said both bus and train service are provided, 30% said bus service is available but not train, and three percent said train service is available, but not bus service. The remaining 17% of respondents said either that no bus or train companies provide service or that they don't know of any service.

Table 22
Transit Service Operating in Home Area and Work Area
(Home area n = 5,718, Work area n = 5,718)

Transit Service Operating	Home Area Percentage	Work Area Percentage
Bus and train	50%	53%
Bus only - no train service	30%	28%
Train only – No bus service	3%	4%
No transit in area / don't know transit	17%	16%

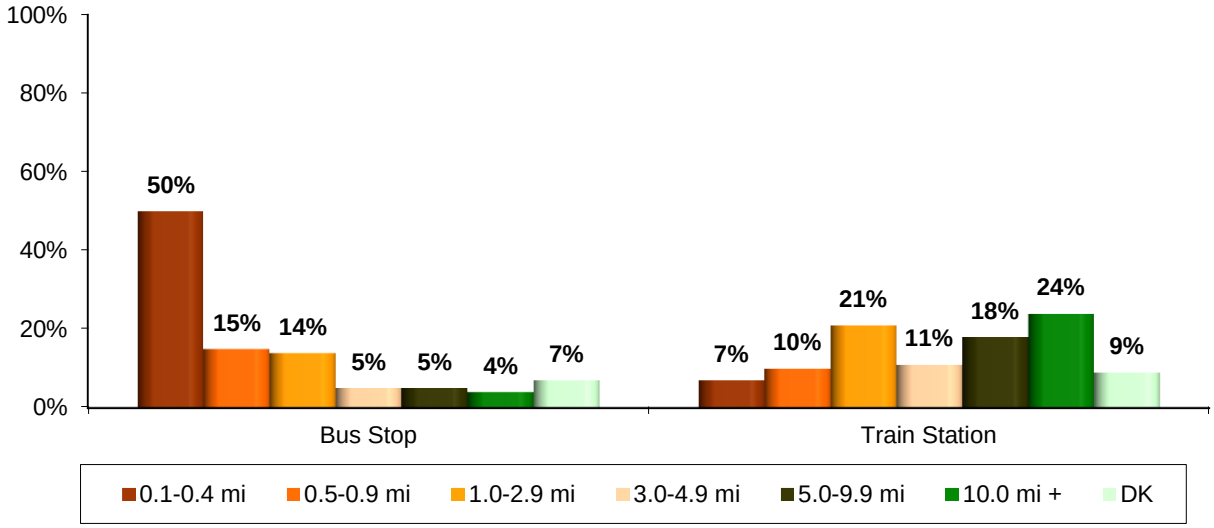
The percentage who said that transit service is available in their work area is approximately the same as for the home area. About half (53%) said both bus and train service are available, about three in ten (28%) said they have access only to bus service, and four percent reported access only to train services. Sixteen percent said that no transit service is offered where they work.

Distance to Bus Stop and Train Station

The results presented above reflect respondents' perception of transit availability; they are not an objective measure of transit availability or level of transit access. A respondent who is willing to drive to a bus stop or rail station might consider service that operates within five miles of his home to be "in my home area," while another respondent who lives within one mile could feel that "no transit operates." The survey also did not address other factors that might enter into a respondent's assessment of the practical feasibility of using transit, such as the directness of the trip or the time needed to make the trip. Thus, some respondents might have considered these factors in assessing whether "service is provided" and others might have excluded them from their assessment.

To assess a measure of the closeness of transit, all respondents, including those who said no transit operated, were asked the distance from their homes to the nearest bus stop and nearest train station. Figure 30 displays the distribution of access distance. Half of the respondents said they lived less than one-half mile from a bus stop and 65% said they lived less than one mile. Among respondents who could provide a distance to a bus stop, the average distance is 1.6 miles.

Figure 30
Distance from Home to Bus Stop and Train Station
(Bus stop n = 5,718, Train station n = 5,718)



Train stations are quite a bit farther away for most respondents. Only seven percent said they lived less than one-half mile from a Metrorail or commuter rail station and only 17% lived less than one mile. About half (53%) said they lived three or more miles away from the nearest train station. On average, respondents who provided a distance lived 7.1 miles away.

Table 23 compares transit access distances for the four "bus available – train available" categories. Again, it is important to emphasize that "service provided" is defined by respondents' perception.

Table 23
Mean Distance from Home to Bus Stop and Train Station
By Type of Transit Service Operating in Home Area
Bus and train n = 2,438; Bus only n = 1,894; Train only n = 164; No bus or train n = 1,222

Service Provided	Distance to Bus Stop	Distance to Train Station
Bus and train provided	0.7 miles	3.4 miles
Bus only - no train service provided	1.2 miles	10.4 miles
Train only – No bus service provided	2.6 miles	5.8 miles
No bus or train service / don't know transit	5.3 miles	13.2 miles

Respondents who said that both bus and train service operate reported the shortest distance to both bus and train transit access points; they live 0.7 miles from the nearest bus stop and 3.4 miles from the nearest train station. Respondents who said only bus operates in their home area live on average of 1.2 miles from a bus stop and 10.4 miles from a train station. Among respondents who reported only access to train, the average bus stop distance is 2.6 miles, greater than in the "bus only" category. But the train station distance of 5.8 miles is much shorter. Finally, respondents who reported no service at all operating in the area where they live estimated longer average distances for both bus access (5.3 miles) and train access (13.2 miles) than did other respondents.

Transit Service Provided by Home Area

The analysis examined availability of transit services by respondents' home location within the "ring" designations defined earlier: Inner Core (City of Alexandria, Arlington County, and the District of Columbia), Middle Ring (Fairfax, Montgomery, and Prince George's counties), and Outer Ring (Calvert, Charles, Frederick, Loudoun, and Prince William counties). Table 24 presents the percentage of respondents in each area who said bus and/or rail operated in their home area.

Both bus and train services are more available in the central part of the region than in the outer jurisdictions. In the Inner Core, 97% of respondents said some transit service operated in their home area and 75% said they both bus and train operated. Within the Middle Ring, 51% of respondents said both bus and train operated and another 33% reported access to either bus or train, although not both. Transit availability dropped off markedly in the Outer Ring; only about six in ten respondents said any service operated and only 26% said they have access to both bus and train.

Table 24
Bus and Train Service by Home Area

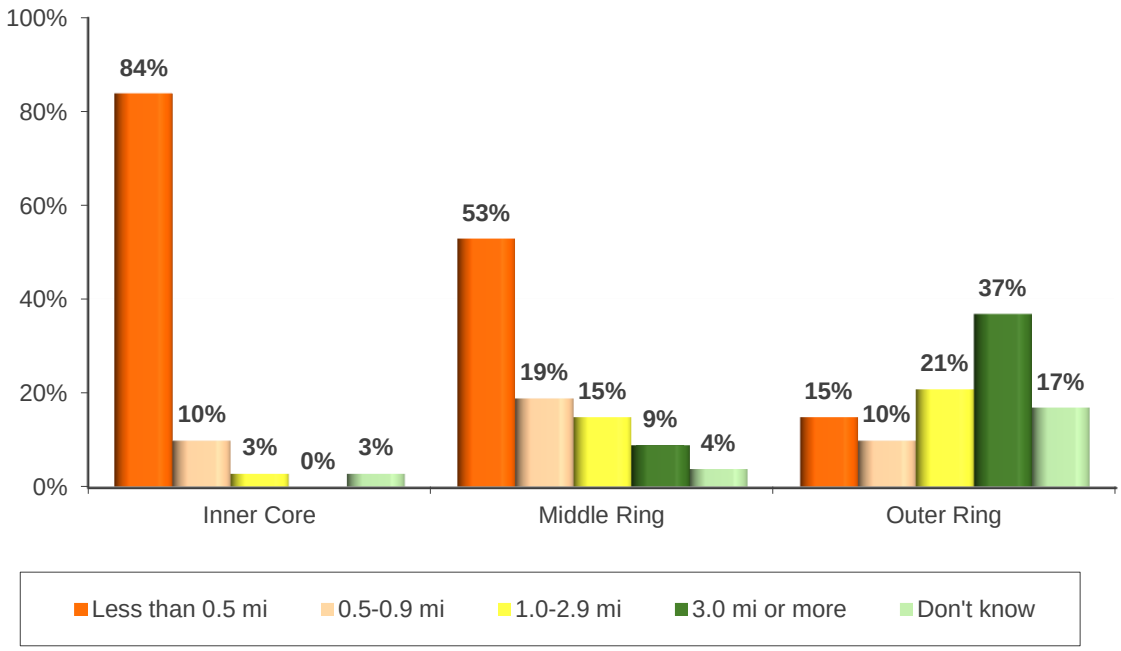
Transit Operating	Inner Core (n = 1,551)	Middle Ring (n = 1,560)	Outer Ring (n = 2,607)
Bus and train	75%	51%	26%
Bus only - no train service	20%	31%	36%
Train only – No bus service	2%	2%	5%
No bus or train service / don't know service	3%	16%	33%

Distance to Transit by Home Area

Figure 31 presents the distribution of distance for the three area rings. Eighty-four percent of respondents in the Inner Core report living less than one-half mile from a bus stop, compared to 53% of respondents in the Middle Ring, and 15% of respondents in the Outer Ring. Only three percent of Inner Core respondents live one or more miles from a bus stop, compared with 58% of Outer Ring respondents. It is also notable that almost two in ten Outer Ring respondents said they don't know the distance to the nearest bus stop.

The average transit access distance is the shortest for respondents who live in the Inner Core; just 0.4 miles to the nearest bus stop and 1.9 miles to the nearest train station. Respondents in the Middle Ring said they travel 1.3 miles to the nearest bus stop and 6.1 miles to the nearest train station. Respondents who live in the Outer Ring reported that the nearest bus stop is an average of 4.5 miles away and train is 12.9 miles away.

Figure 31
Distance from Home to Bus Stop by Home Area
(Inner Core n = 1,551, Middle Ring n = 1,560, Outer Ring n = 2,607)



Commute Mode by Distance to Bus Stop – As might be expected, the commute mode share of transit declines with increasing distance from a bus stop. Figure 32 presents the mode shares of driving alone and bus/train for respondents who live various distances from a bus stop. About a quarter (24%) of commuters who live less than one-half mile from a bus stop commute primarily by bus or train. As the distance from home to a bus stop increases, the transit share falls steadily. When the nearest bus stop is 10 miles from home, only seven percent of respondents commute by transit, a drop of 17 percentage points.

These commuters shift entirely to driving alone. As the figure shows, the drive alone rate for commuters who live more than 10 miles from a bus stop is 84%, compared to 62% for commuters who live within one-half mile of a bus stop. This represents a 22 percentage point increase for driving alone.

Figure 33 illustrates that the same pattern of increasing drive alone mode share and decreasing transit use also holds for distance to the nearest train station, but with a more extreme change as distance increases. Among commuters who live less than one-half mile from a train station, only 41% drive alone and 39% use transit. Among commuters who live 10 miles or more from the nearest train station, the drive alone rate is 82%, an increase of 41 percentage points, and the transit share is nine percent, a drop of 30 percentage points.

Figure 32
Commute Mode by Distance from Home to Bus Stop
(Less than 0.5 mi n = 2,492, 0.5-0.9 mi n = 657, 1.0-2.9 mi n = 749, 3.0-4.9 mi n = 337, 5.0-9.9 mi n = 454, 10.0 mi or more n = 441)

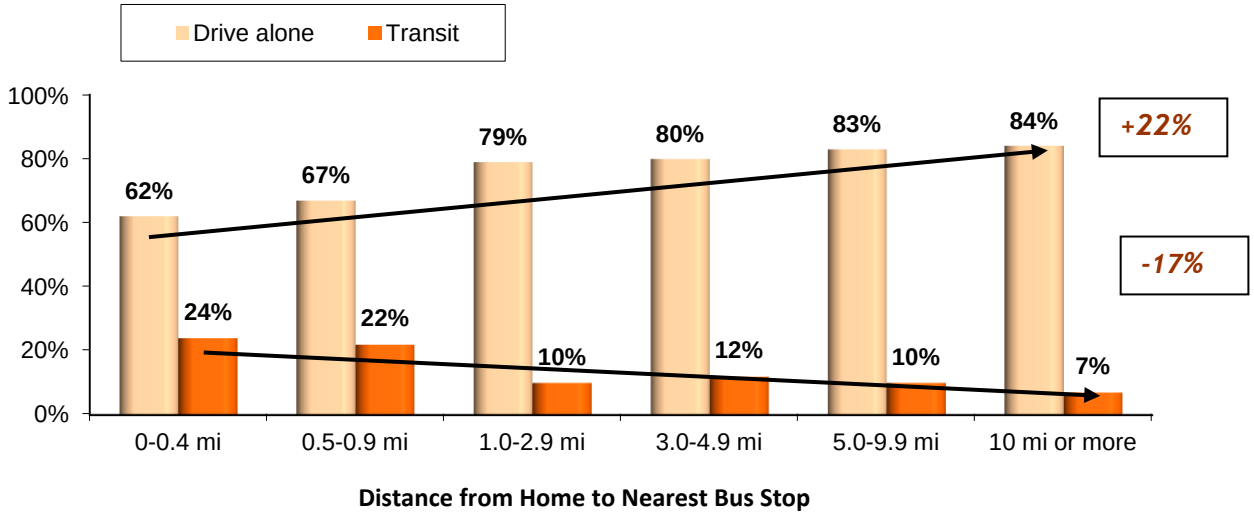
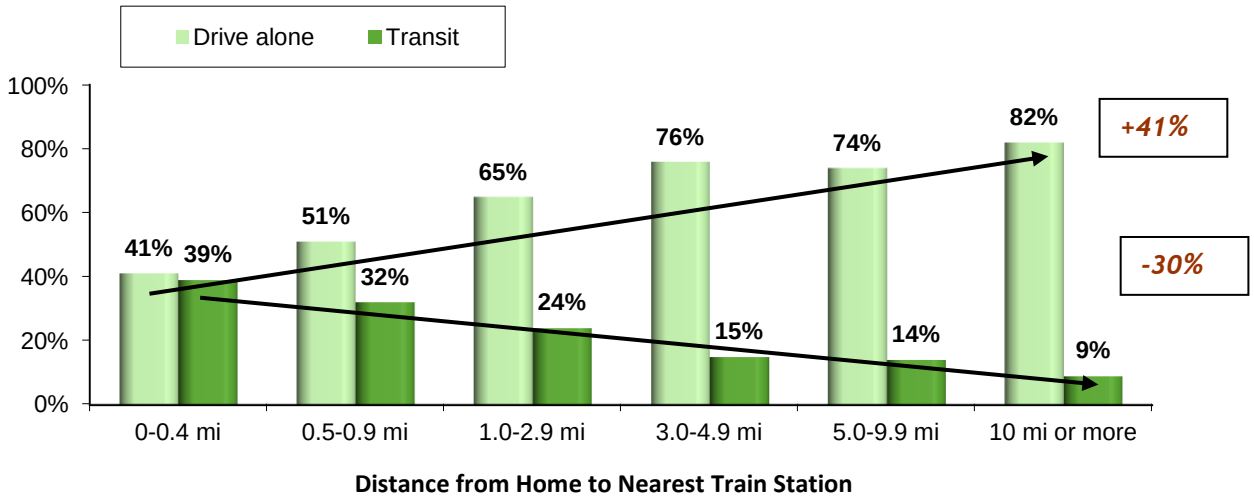


Figure 33
Commute Mode by Distance from Home to Train Station
(Less than 0.5 mi n = 366, 0.5-0.9 mi n = 522, 1.0-2.9 mi n = 1,058, 3.0-4.9 mi n = 531, 5.0-9.9 mi n = 752, 10.0 mi or more n = 1,893)



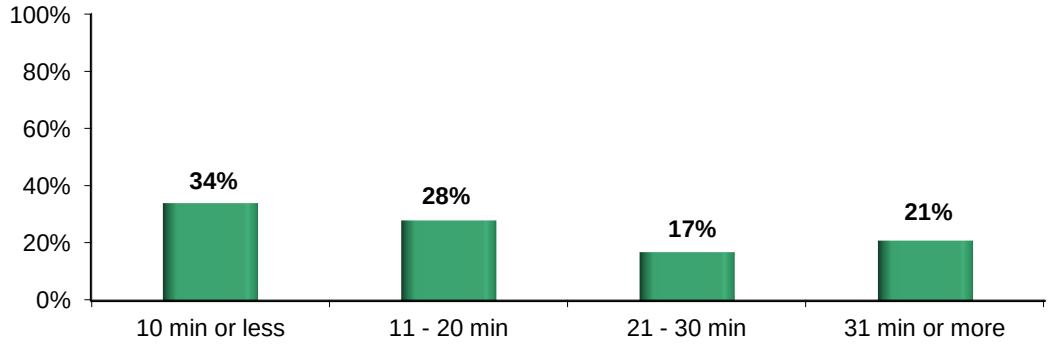
High Occupancy Vehicle (HOV) / Express Lanes

Availability and Use of HOV / Express Lanes

The survey also examined availability and use of High Occupancy Vehicle (HOV) and/or express lanes. Approximately three in ten (29%) commuters said there is a special lane along their route to work. Of these respondents, 34% said they use these lanes. This equates to about nine percent of commuters region-wide. These percentages are essentially the same as reported HOV availability and HOV use in 2010 and 2007.

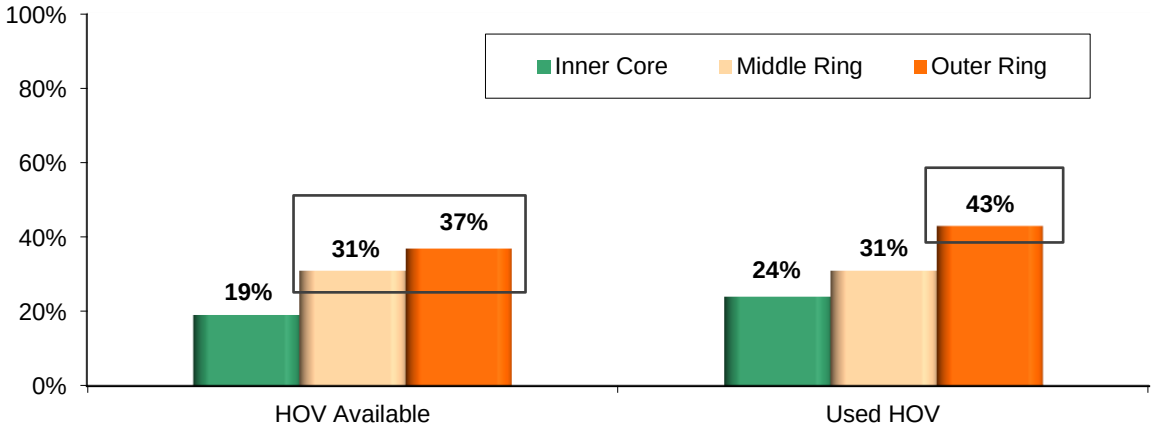
Respondents who regularly use the HOV lane for commuting estimated that using the lane saves them an average of 24 minutes for each one-way trip. As displayed in Figure 34, a third (34%) said they save 10 minutes or less and about three in ten (28%) save between 11 and 20 minutes. The remaining HOV users are approximately evenly split between saving 21 to 30 minutes (17%) and saving more than 30 minutes one-way (21%).

Figure 34
Travel Time Saving of HOV / Express Lane Users
(n = 470)



HOV / Express Lanes by Home Area – Figure 35 shows availability and use of HOV / express lanes by respondents' home location within the three "ring" categories.

Figure 35
Availability and Use of HOV / Express Lanes by Home Area
(HOV Available – Inner Core n = 1,551, Middle Ring n = 1,560, Outer Ring n = 2,607)
(HOV Used – Inner Core n = 421, Middle Ring n = 453, Outer Ring n = 704)



Commuters who live in Middle Ring and Outer Ring jurisdictions are more likely to say they have HOV / express lanes available on their route to work than are commuters who live in the Inner Core. Commuters who live in the Outer Ring use the lanes at a higher rate than do commuters in other areas. More than four in ten (43%) Outer Ring respondents who have access to HOV / express lanes said they use them, compared to about a quarter of Inner Core respondents and three in ten Middle Ring respondents.

Table 25 shows availability and use of HOV / express lanes by respondents' home county or city. Virginia residents have higher availability than do residents of Maryland or the District of Columbia. At least three in ten respondents in each of the five Virginia jurisdictions said an HOV /express lane is available to them; in Prince William County, six in ten (61%) respondents reported having access. By comparison, the highest rates of HOV / express lane availability outside Virginia are 28%, for respondents who live in Frederick County, MD, and 27% for Montgomery County, MD residents. Only eight percent of respondents from the District of Columbia reported having access to the lanes along their route to work.

Table 25
Availability and Use of HOV / Express Lanes
by Residence Jurisdiction

Home Jurisdiction (County/City)	All Respondents		Respondents With HOV / Express Lane Available	
	(n=___)	Percentage with lane available	(n=___)*	Percentage using lane
Virginia jurisdictions				
Prince William County	521	61%	317	53%
Fairfax County	520	46%	235	33%
City of Alexandria	518	40%	220	31%
Loudoun County	506	34%	173	33%
Arlington County	519	31%	159	31%
Maryland jurisdictions				
Frederick County	518	28%	150	29%
Montgomery County	499	27%	132	34%
Prince George's County	541	14%	86	21%
Charles County	539	9%	38	38%
Calvert County	523	5%	26	31%
District of Columbia	514	8%	42	6%

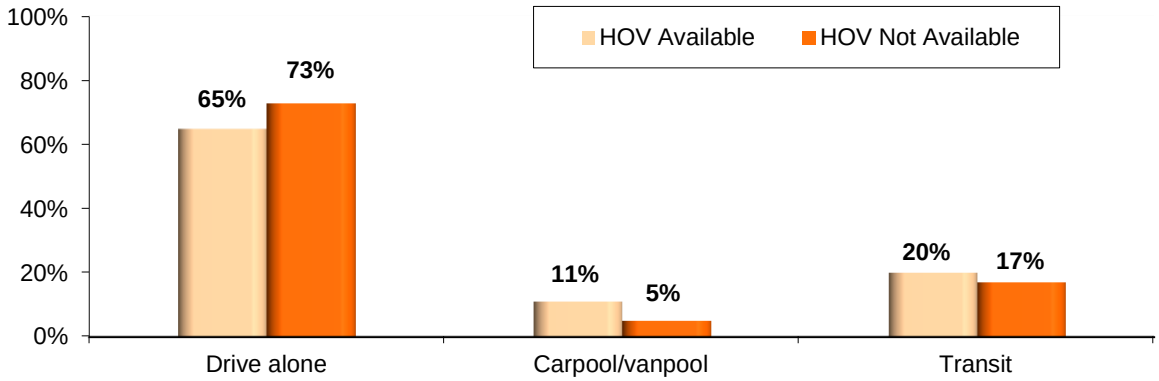
* Respondents in the jurisdiction who have an HOV / express lane available along their route to work.

The last column of Table 25 illustrates the use of HOV / express lanes by residence jurisdiction for respondents who said they have a lane available. Residents of Prince William County use HOV / express lanes at a much higher rate than do residents of all other jurisdictions; 53% of Prince William County residents who said lanes are available have used them. In most other jurisdictions, only about one-quarter to one-third of respondents who have access to HOV / express lanes use them.

HOV / Express Lane Influence on Commute Choice – The data suggest HOV / express lanes have an impact on choice of commute modes. More than half (54%) of the respondents who use the lanes for commuting said availability of the lane influenced their decision to carpool, vanpool, or ride transit for their commute. The influence on carpooling is best illustrated by the drive alone and carpool/vanpool mode shares when HOV/ express lanes are available and when they are not (Figure 36).

About 11% of respondents who said an HOV / express lane is available along their route to work carpool or vanpool to work, compared with five percent of respondents who do not have access. Transit use is slightly higher for respondents who said an HOV / express lane is available. Conversely, the drive alone rate for respondents who have access to HOV / express lanes is 65%, compared to 73% for respondents who do not have access.

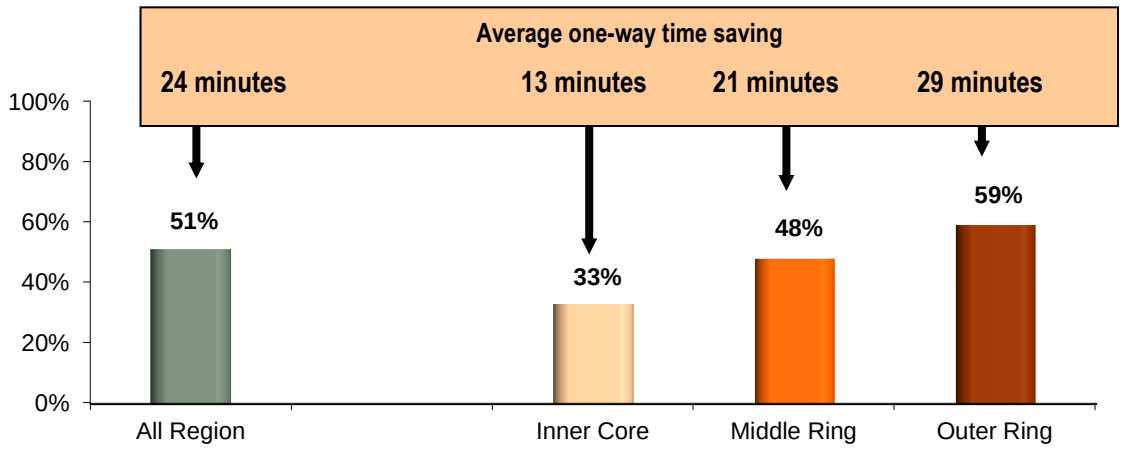
Figure 36
Primary Commute Mode by Availability of HOV / Express Lanes
(HOV Available n = 1,578, HOV Not Available n = 4,044)



Various HOV studies have suggested that the influence of HOV lanes is due to both the amount of time saved by HOV lanes and the reliability of travel time that HOV lanes afford. Overall, 51% of HOV users said that availability of the lane influenced their decision to choose an alternative mode for commuting. On average, HOV / express lane users saved 24 minutes one-way in their commute time. Figure 37 shows these results.

Figure 37 also presents comparison results for the each of the three ring designations. About one-third of HOV / express lane users who live in the Inner Core reported that HOV availability influenced their mode choice and they save an average of 13 minutes one-way. HOV / express lanes' influence on HOV users who live in the Middle Ring and Outer Ring is higher; 48% of Middle Ring respondents and 59% of Outer Ring respondents said the HOV lanes influenced their commute mode choice. They also reported much greater time saving in their commute; 21 minutes and 29 minutes one-way, respectively.

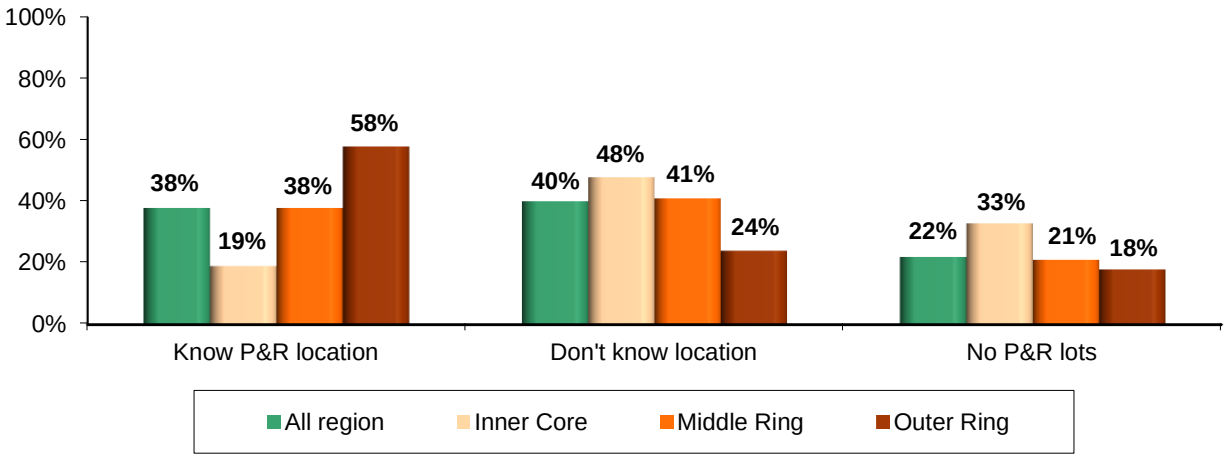
Figure 37
HOV Influence on Choice of Commute Mode and Time Saved by HOV Lane Use
By Home Area
(HOV lane influenced - All Region n = 539, Inner Core n = 107, Middle Ring n = 145, Outer Ring n = 282)
(HOV time saving - All Region n = 486, Inner Core n = 88, Middle Ring n = 129, Outer Ring n = 253)



Park and Ride Lots

Figure 38 depicts respondents' awareness of the locations of Park and Ride (P&R) lots along their route to work. Thirty-eight percent of respondents across the region said they know the locations of P & R lots along their commuting route. Another four in ten (40%) said they do not know the locations. The remaining (22%) said there are no P & R lots along their route to work. But awareness / availability of lots varies substantially by home location. Only 19% of respondents who live in the Inner Core know of a P&R lot on their route, while 38% of respondents who live in the Middle Ring and 58% of respondents in the Outer Ring know of a lot along their route to work.

Figure 38
Awareness of Park & Ride Lots Along Route to Work – By Home Area
(All region n = 5,552, Inner Core n = 1,481, Middle Ring n = 1,511, Outer Ring n = 2,560)



Two in ten (21%) of those who know Park and Ride lot locations have used these lots when commuting during the past year. These respondents represented seven percent of total respondents in the survey, slightly lower than the nine percent of respondents who reported use of P & R lots in the 2010 SOC survey. Use of P & R lots is more common among respondents who live in the Middle Ring (23%) and Outer Ring (33%) than for Inner Core (8%) residents. But respondents who work in the Inner Core use P & R lots at a much higher rate than do other respondents. One-third (34%) of Inner Core workers who know of a lot used it in the past year, compared with just one in ten respondents who work in the Middle Ring (13%) or Outer Ring (8%).

Attitudes Toward Transportation Options

Carpool / Vanpool Barriers

Respondents who did not carpool or vanpool to work were asked why they did not use these modes. Table 26 shows respondents' barriers to rideshare use, grouped into three reason categories: service availability, service characteristics, and personal preferences/needs.

Table 26
Reasons for Not Using Carpool / Vanpool to Work
(n = 5,276, multiple responses permitted)

Reasons	Percentage
Service Availability	
Don't know anyone to carpool/vanpool with	47%
Service Characteristics	
Takes too much time	5%
Bus/train/carpool partner could be unreliable/late	3%
Doesn't save time	3%
Personal Preferences/Needs	
Work schedule irregular	23%
Need my car for work	8%
Need car before/after work	7%
Live close to work, can walk, use other mode	5%
Don't like to ride with strangers, prefer to be alone	4%
Prefer to use bus / Metro / train	3%
Just not interested / not convenient	2%
Trip is too long/distance too far	1%
Other *	10%

* All responses in the "Other" category were named by fewer than 1% of respondents.

The most common reason, cited by nearly half (47%) of respondents is one of service availability; that they don't know anyone to carpool or vanpool with. Only a small share of respondents noted concerns or barriers related to service characteristics. The most common concern here is that carpooling and vanpooling take too much time, but this was noted by only five percent of respondents.

Respondents noted greater barriers related to personal preferences/needs. The most common reason is an irregular schedule, cited by 23% of respondents. About one in ten said they needed a personal vehicle for trips before or after work (7%) or that their work responsibilities required use of a vehicle (8%). Five percent of respondents said they lived too close to work to make carpooling or vanpooling attractive and four percent said they did not want to ride with strangers or preferred to be alone during commuting.

Transit Barriers

Respondents who did not use a bus or train for commuting were asked why they did not use transit. Table 27 shows respondents' barriers to transit use, grouped in the three reason categories: service availability, service characteristics, and personal preferences/needs.

Respondents cited reasons in each category. About seven in ten respondents said they do not use transit because they did not have train service available and half said bus service is not available in either the home or work area. Respondents who do not use bus or train also noted several characteristics of the services as barriers to their use. The top reason in this group is that transit "takes too much time," mentioned by two in ten respondents. Small percentages of respondents noted issues with cost, convenience, or comfort.

Common reasons in the personal preferences/needs category included needing a vehicle for work or before or after work, having an irregular work schedule, and that the trip is too long. Smaller shares of respondents said the commute is too short, they needed or wanted travel freedom and flexibility, and that they did not want to ride with strangers.

Table 27
Reasons for Not Using Transit to Work
(n = 4,663, multiple responses permitted)

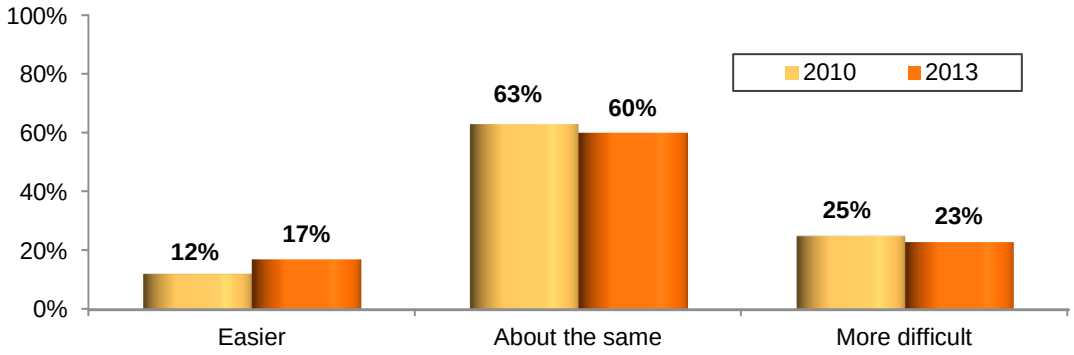
Reasons	Percentage
Service Availability *	
No train service available in home/work area	69%
No bus service available in home/work area	49%
Don't know if service is available/location of service	1%
Service Characteristics	
Takes too much time	20%
Too expensive	4%
Bus/train could be unreliable/late	4%
Have to transfer/too many transfers	2%
Have to wait too long for service	1%
Too uncomfortable/crowded	1%
Personal Preferences/Needs	
Need my car for work	7%
Trip is too long/distance too far	6%
Work schedule irregular	5%
Need car before/after work	5%
Commute is too short	3%
Prefer to drive, want freedom / flexibility	2%
Don't like to ride with strangers, prefer to be alone	2%
Prefer another alternative mode	2%
Other	7%

* Respondents who said no train or bus service is available also were permitted to answer other reasons why they could not use bus or train

Ease of Commute

Respondents who did not telework or work at home all the time were asked if their commute time is easier, more difficult, or about the same as it was a year prior. Most (60%) respondents said their commute is about the same as a year ago (Figure 39). About a quarter (23%) said their commute is more difficult and 17% said their commute is easier.

Figure 39
Commute Easier, More Difficult, or About the Same as Last Year – 2010 and 2013
(2010 n = 6,049, 2013 n = 5,717)



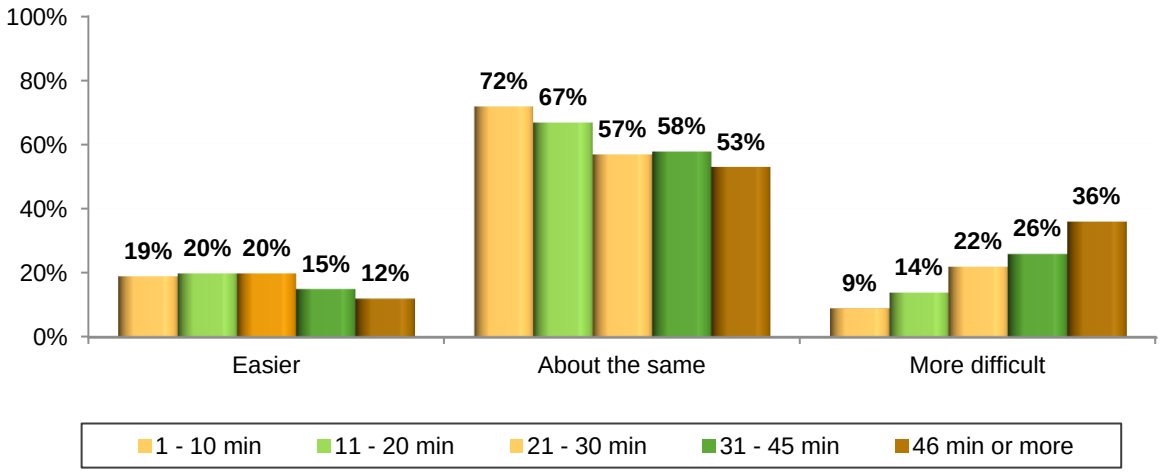
Change in Commute Ease by Home and Work Location

Commuters who live in the Middle and Outer Ring sub-areas were slightly more likely to report a more difficult commute (23% and 24%, respectively) than were commuters who live in the Inner Core (19% more difficult commute). By contrast, 25% of commuters who work in the Inner Core sub-area reported a more difficult commute, compared with 22% of commuters who work in the Middle Ring and 18% who work in the Outer Ring.

Change in Commute Ease by Travel Time

Figure 40 displays the shares of commuters who reported that their commute was more difficult, about the same, and easier, by the amount of time they spend commuting. Among commuters who have very short commutes – 10 minutes or less – more than seven in ten said their commute is about the same as it was a year ago and 19% said it is easier; only nine percent said it is more difficult. The share of commuters who report an easier commute is not substantially different for commuters with longer commutes, but the share who said they have a more difficult commute increases steadily as the commute time increases. Among commuters who travel more than 45 minutes to work, 36% said their commute is more difficult.

Figure 40
Commute Easier, More Difficult, or About the Same as Last Year – By Commute Length (minutes)
(1 to 10 min n = 663, 11 to 20 min n = 1,213, 21 to 30 min n = 1,009, 31 to 45 min = 1,279, 46 min or more n = 1,441)



Influence of Changes in Residence or Work Location

Because it was expected that a commute might have become easier or more difficult because the origin and/or destination of the commute changed, all respondents were asked if they had made a change in their work location and/or home location in the past year. Table 28 displays results of commute ease for respondents who did and did not make a move.

About 17% made a change and 83% made no change. More than eight in ten (83%) said they moved within the Washington metropolitan region. The other 17% moved from a location outside the Washington area. Because those who moved from outside the region could not provide a before-the-move comparison, they were excluded from the base for Table 28.

Table 28
Commute Compared to Last Year
by Made a Change in Home or Work Location

Changed Home or Work Location	(n =__)	Easier	About the Same	More Difficult
No change	4,800	12%	65%	22%
Any change	927	41%	33%	26%
Type of change made				
Changed home	272	32%	45%	23%
Changed work	465	41%	29%	30%
Changed home and work	190	56%	24%	20%

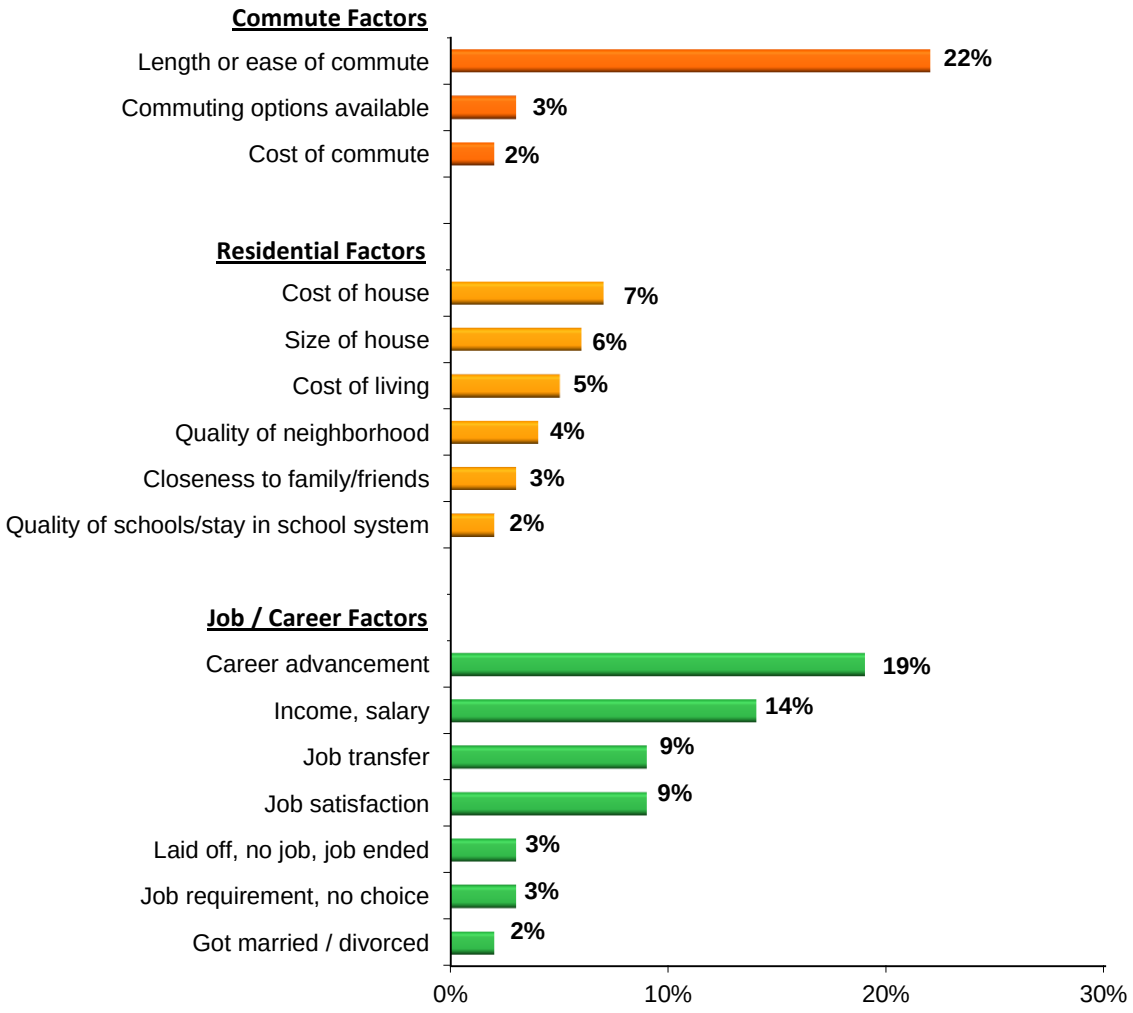
The percentages shown in the table suggest the ease or difficulty of the commute appears to be related to moves for at least some of the respondents. The majority (65%) of respondents who did not move said their commutes are about the same. Twelve percent said their commute has improved and about two in ten (22%) said it has gotten more difficult.

About one-quarter (26%) of respondents who moved said they have a more difficult commute. But a considerably larger percentage (41%) said their commute has improved. This percentage also is much higher than the percentage of respondents whose commute is easier without a move. This suggests that the move can play a role in either improving or worsening a commute, but that the move improves the commute more often than it worsens it.

The table also shows a breakdown of change in commute conditions by the type of move made: home only, work only, or both home and work. Half of the commuters who made both home and work changes improved their commute, while respondents who made only one of the changes were less likely to have the change result in an improved commute.

Commuting as a Factor in Location Change Decisions – Anecdotal reports suggest that some commuters might move their residences and/or seek new jobs at least in part to make their commute easier or less costly. Several survey questions explored the influence commute factors might have on commuters' home or work location decisions. Respondents who said they made a change were asked what factors they considered in making the change and how important to their decision the ease of the trip to work was compared with other factors they considered. Figure 41 displays the decision factors respondents mentioned.

Figure 41
Factors Considered in Home or Work Location Changes
Respondents who Made a Change in Work or Residence Location)
(Note: Scale extends only to 30% to highlight difference in responses)
(n = 927, multiple responses permitted)



One-quarter of respondents cited a commute-related factor as one factor that they considered in the moving decision. Two in ten cited the length or ease of commute; small percentages said the cost of commuting or the range of commuting options available at the new location had been a factor.

Half of respondents noted a job or career concern as a factor in their decision; career advancement was noted by 19% of respondents. Income / salary (14%), job transfers (9%), and job satisfaction (9%) each was named by at about one in ten respondents. About a quarter named a residential factor, such as the cost of the house (7%), size of the house (6%), cost of living (5%), and quality of the neighborhood (4%) as factors they considered.

Four groups of respondents were particularly likely to cite commute factors as part of their decision process presumably, because they expected to encounter a more difficult commute with their move or because they wanted to improve their commute with the move:

- Respondents who live in the Middle Ring – 29% of respondents who live in the Middle Ring sub-area noted commute factors, compared with 19% of Inner Core and 20% of Outer Ring respondents
- Respondents who work in the Middle Ring – 32% of Middle Ring respondents named commute factors, compared with 19% of Inner Core and 22% of Outer Ring workers.
- Respondents who moved from another location in the Washington region – 27% of respondents who moved within the region named commute factors, compared with 18% for respondents who moved from outside the region
- Respondents who are between 25 and 34 years old – 32% of respondents who are between 25 and 34 named commute factors, compared with 18% of respondents who are younger than 25, 26% of respondents who are between 35 and 44, and 24% of respondents who are 45 or older.

Respondents who had made a move were asked how important commuting factors had been to their decision, relative to the other factors they considered (Table 29). Almost three in ten (28%) said the commute factors were more important than others and nearly half (48%) said they were about equally important. Only about a quarter said commuting factors were less important. Table 29 also lists the responses for the 2010 and 2007 SOC surveys. It is clear that commuting has been an important over the past six years,

Table 29
Importance of Commute Ease Relative to Other Factors Considered in Home or Work Location Changes
Respondents who Made a Change in Work or Residence Location
(2013 n = 850, 2010 n = 887, 2007 n = 981)

Importance of Commute Ease	2013 SOC	2010 SOC	2007 SOC
More important than other factors	28%	29%	30%
About the same importance as other factors	46%	38%	44%
Less important than other factors	26%	33%	27%

Finally, respondents who made a residential location change were asked if their employers had offered any information about financial incentives that might be available if the respondent moved to a home that was closer to the work location or moved closer to a bus stop or transit station. These questions were designed to measure the impact of the "Live Near Your Work" program that Commuter Connections implemented in 2008. This program encourages employers to inform employees of several state and/or federal financial incentives offered to employees who choose a home location that reduces the distance they travel to work or who choose a home location near a transit stop.

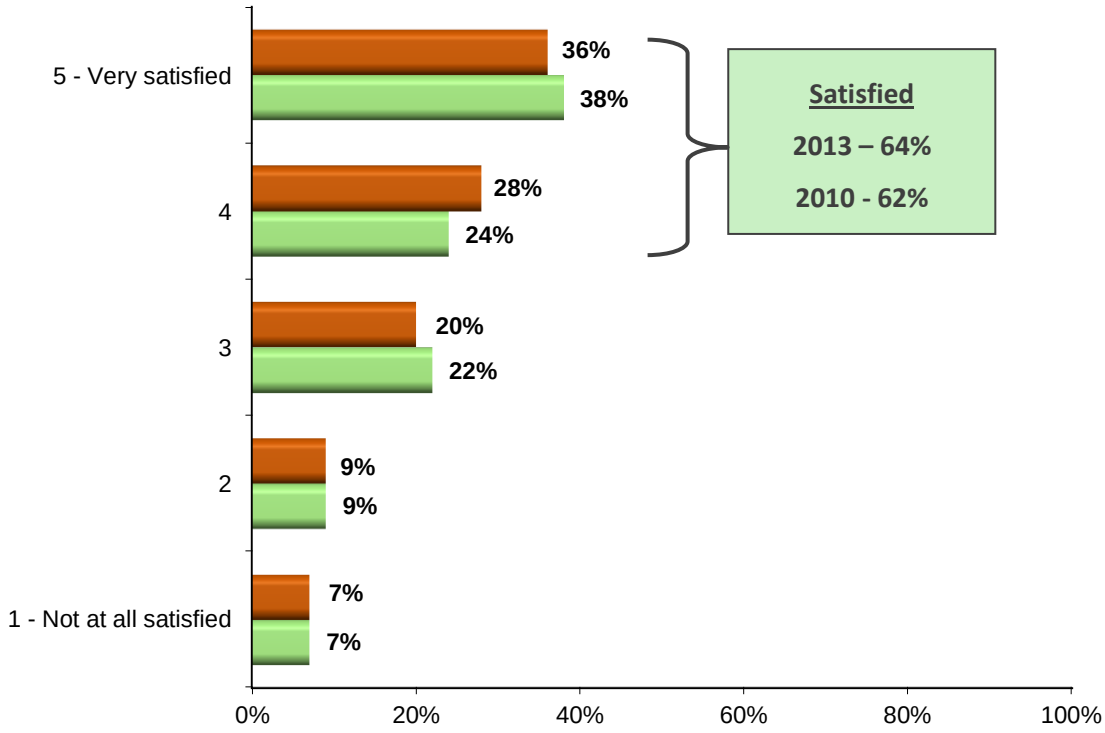
In 2013, eight percent of respondents who moved their homes received information from their employers. This is about the same percentage as reported receiving information in 2010 (6%). Nine percent said they received information on financial incentives to move closer to transit, twice the four percent who noted this information in the 2010 SOC survey.

Commute Satisfaction

The 2013 survey included a question that had been added in 2010, asking commuters to rate how satisfied they are with their trip to work. As shown in Figure 42, 64% rated their commute satisfaction as a "4" or "5" on a 5-point scale, where "5" meant "very satisfied. Two in ten gave a rating of 3. Seventeen percent rated their satisfaction as either a "1 – not at all satisfied (7%) or 2 (9%).

Commute satisfaction in 2013 is very similar to that measured in the 2010 SOC survey. In 2010, 62% reported being satisfied and 22% gave a middle rating of 20%.

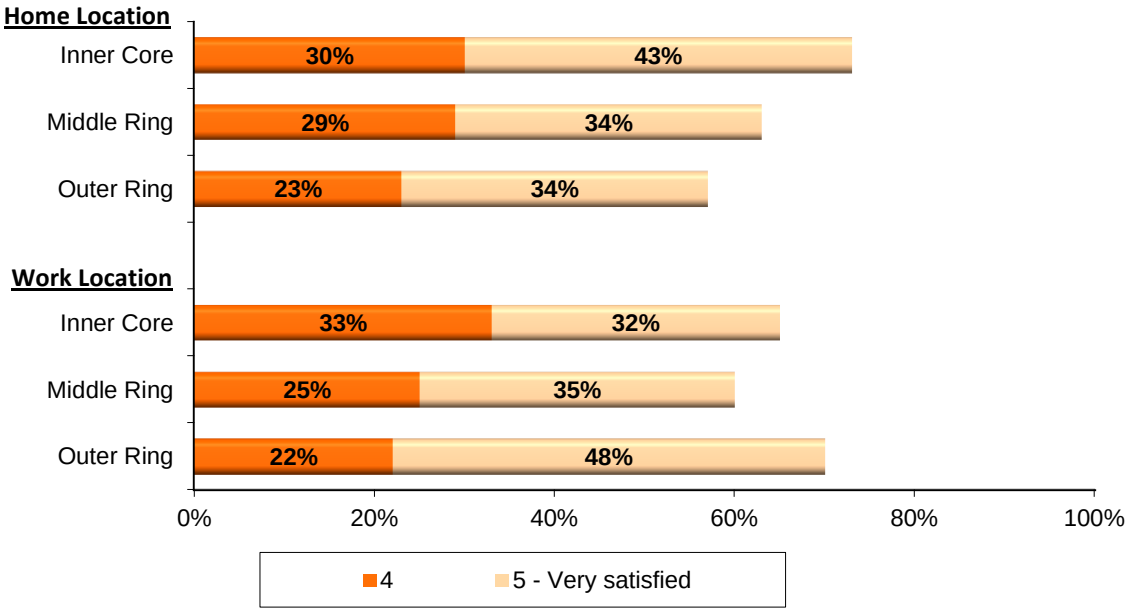
Figure 42
Satisfaction with Commute
(2010 n = 6,033, 2013 n = 5,692)



Commute Satisfaction by Home and Work Location

Commute satisfaction also differs by where in the region the respondent lives and works. Figure 43 presents the percentages of commuters in each of the three areas of the region who rate their commute satisfaction as a 4 or 5. Respondents who live in the Inner Core are notably more satisfied with their commute than are respondents who live in the Middle Ring or Outer Ring areas. But respondents who work in the Outer Ring are more satisfied than are respondents who work in the Inner Core and Middle Ring.

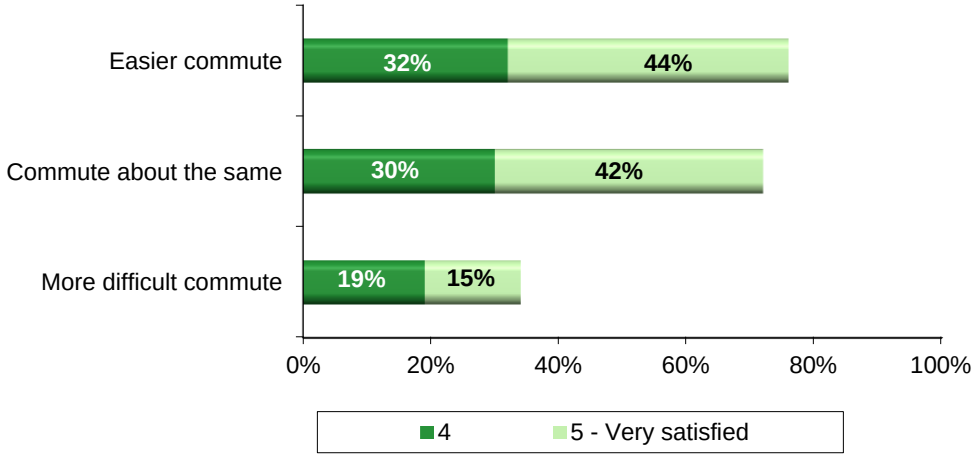
Figure 43
Satisfaction with Commute – Percent Rating Commute a 4 or 5
by Home and Work Area
(Home Area – Inner Core n = 1,551, Middle Ring n = 1,560, Outer Ring n = 2,607)
(Work Area – Inner Core n = 2,441, Middle Ring n = 1,866, Outer Ring n = 1,389)



Commute Satisfaction by Ease of Commute Compared with a Year Ago

Respondents' level of satisfaction with their commute is influenced by the ease of the commute. As illustrated in Figure 44, 76% of respondents who said they have an easier commute than last year and 72% who said their commute has not changed are satisfied with their commute, compared to only 34% who said their commute has become more difficult.

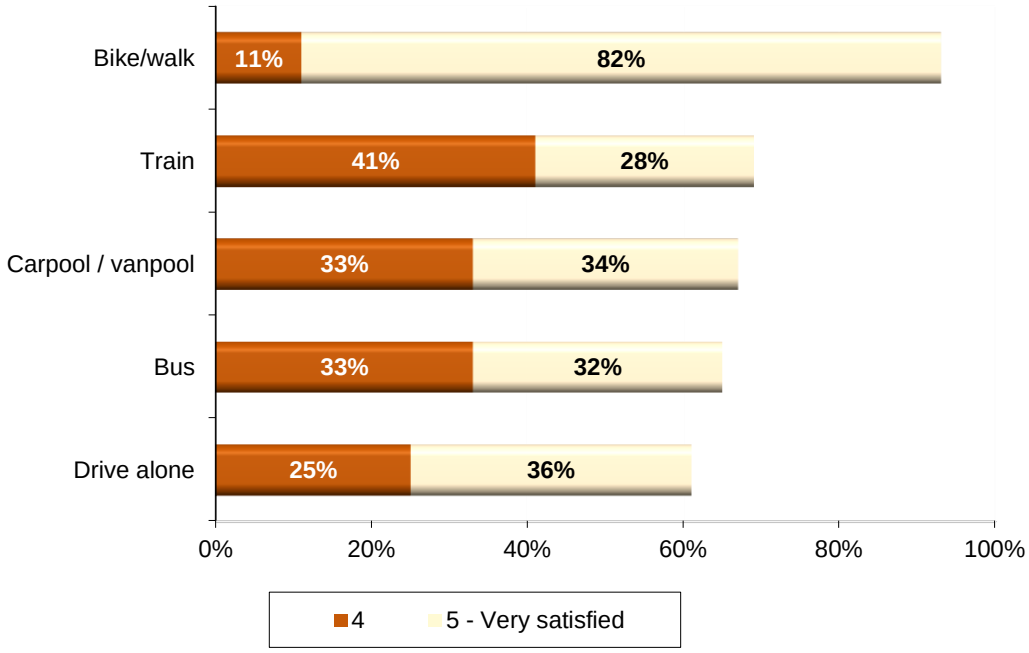
Figure 44
Satisfaction with Commute – Percent Rating Commute a 4 or 5
by Ease of Commute
(Easier commute n = 843, Commute about the same n = 3,492, More difficult commute n = 1,283)



Commute Satisfaction by Commute Mode

As evident in Figure 45, more than nine in ten bikers/walkers reported high commute satisfaction. Other respondents are about equally satisfied with their commute, regardless of the mode they primarily use to get to work.

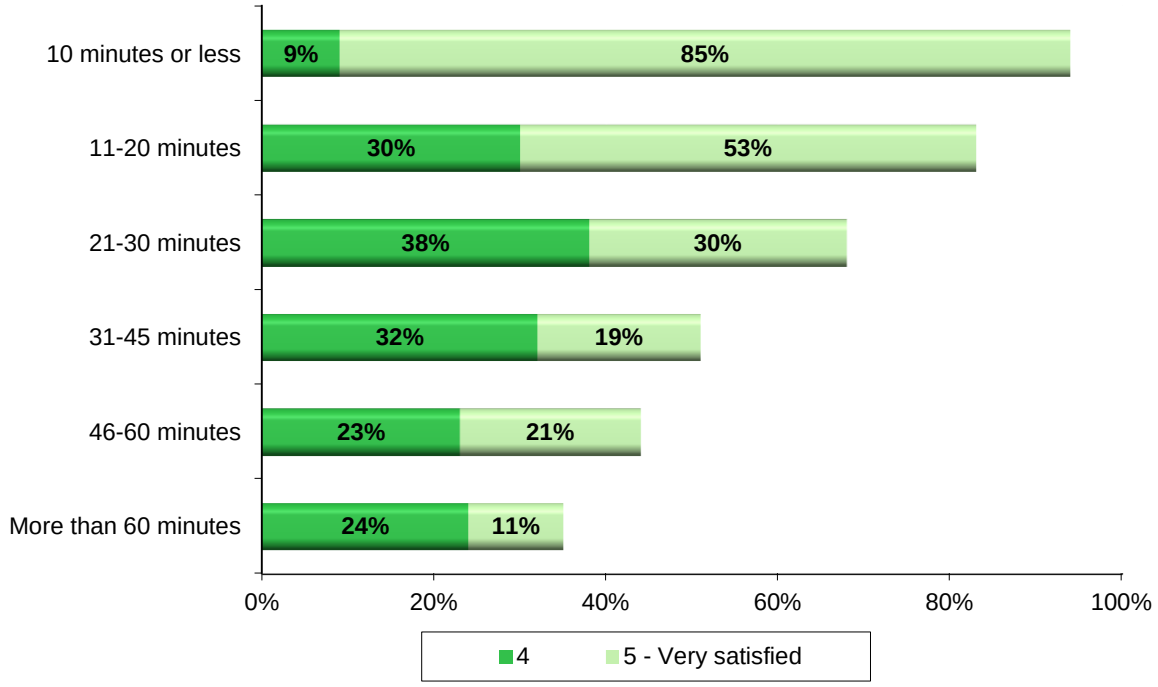
Figure 45
Satisfaction with Commute – Percent Rating Commute a 4 or 5
By Primary Commute Mode
(Bike/walk n = 150, Train n = 678, Carpool/Vanpool n = 363, Bus n = 298, Drive alone n = 4,080)



Commute Satisfaction by Travel Time

Commute satisfaction declines steadily and significantly as the amount of time a commuter travels increases. As shown in Figure 464, 94% of commuters who have very short commutes – 10 minutes or less – give a 4 or 5 rating for satisfaction. When the commute is between 11 and 20 minutes, 83% are satisfied. At 21 to 30 minutes, satisfaction drops still further; only 68% give a 4 or 5 rating. Only about half of commuters who travel 31 to 45 minutes are satisfied and satisfaction drops to 44% for travel times of 46 to 60 minutes. When travel time exceeds 60 minutes, only three in ten rate their commute a 4 or 5.

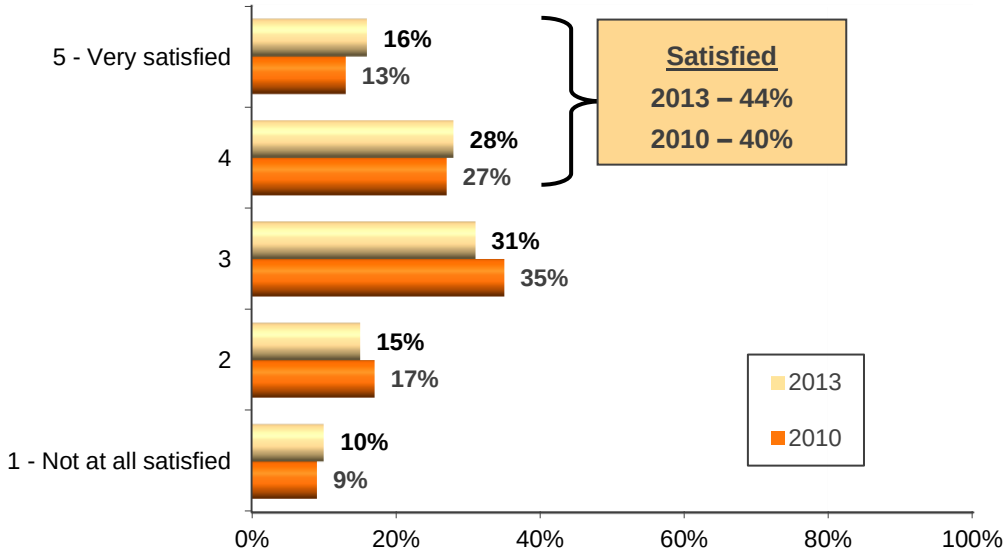
Figure 46
Satisfaction with Commute – Percent Rating Commute a 4 or 5
By Length of Commute in Minutes
(1-10 min n = 663, 11-20 min n = 1,213, 21-30 min n = 1,009, 31-45 min n = 1,279, 46-60 min n = 771, More than 60 min n = 670)



Transportation Satisfaction

The 2013 survey included a question that had been added to the 2010 SOC survey to explore commuters' satisfaction with the transportation network in the Washington metro region. Commuters generally are less satisfied with transportation in the region than they are with their particular commute (Figure 47). Only 44% said they are satisfied (rating of 4 or 5 on a 5-point scale) and more than a quarter (25%) said they are not satisfied (rating of 1 or 2). Commuters appear, however, to be slightly more satisfied than they were in 2010; in the 2010 SOC, only 40% of regional commuters rated their transportation satisfaction as a 4 or 5.

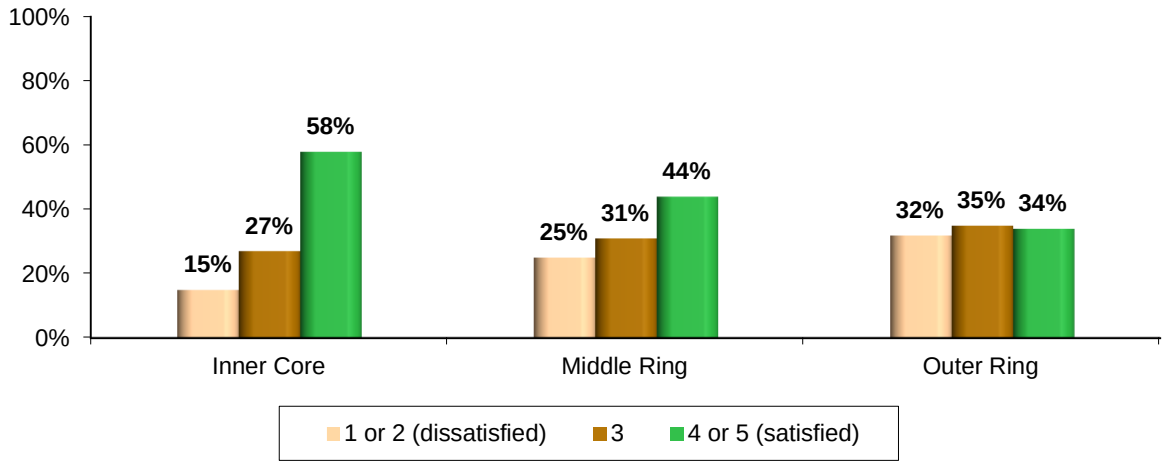
Figure 47
Ratings for Transportation Satisfaction – Rating of 4 or 5
(2010 n = 6,420, 2013 n = 5,486)



Transportation Satisfaction by Home Location

Respondents who live in the Inner Core give a considerably higher rating for transportation satisfaction than do respondents in either the Middle Ring or Outer Ring (Figure 48). Nearly six in ten (58%) Inner Core respondents rate their satisfaction with transportation as a 4 or 5, compared with 44% of Middle Ring respondents and 34% of Outer Ring respondents.

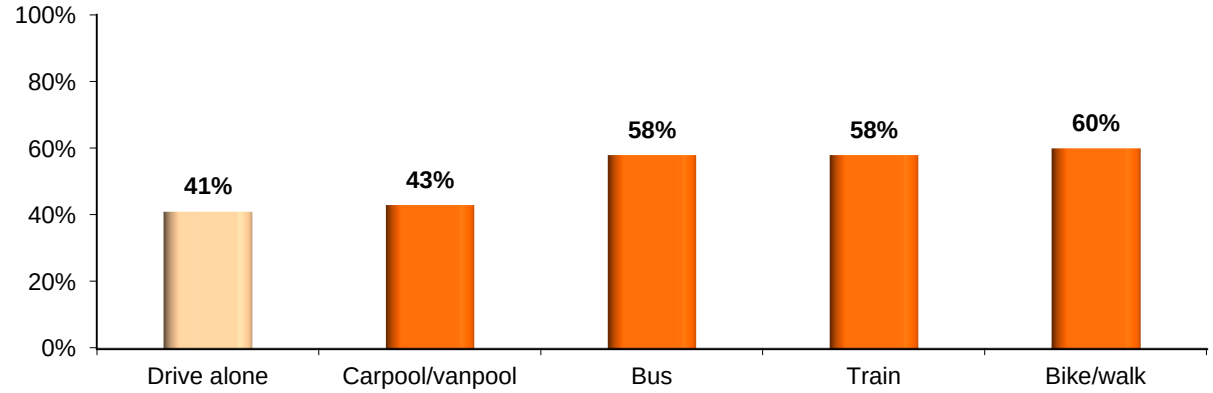
Figure 48
Ratings for Satisfaction with Regional Transportation – Rating of 4 or 5
By Home Area
(Inner Core n = 1,528, Middle Ring n = 1,505, Outer Ring n = 2,453)



Transportation Satisfaction by Commute Mode

Respondents who drove alone and those who carpooled / vanpooled gave the lowest ratings for transportation satisfaction; about four in ten of respondents in these two mode groups are satisfied (Figure 49). Respondents who use transit or bike/walk for commuting give higher satisfaction ratings, with about six in ten respondents in these mode groups rating satisfaction as a 4 or 5. One common trait of these other modes is that the commuters do not need to drive, so they can avoid congestion.

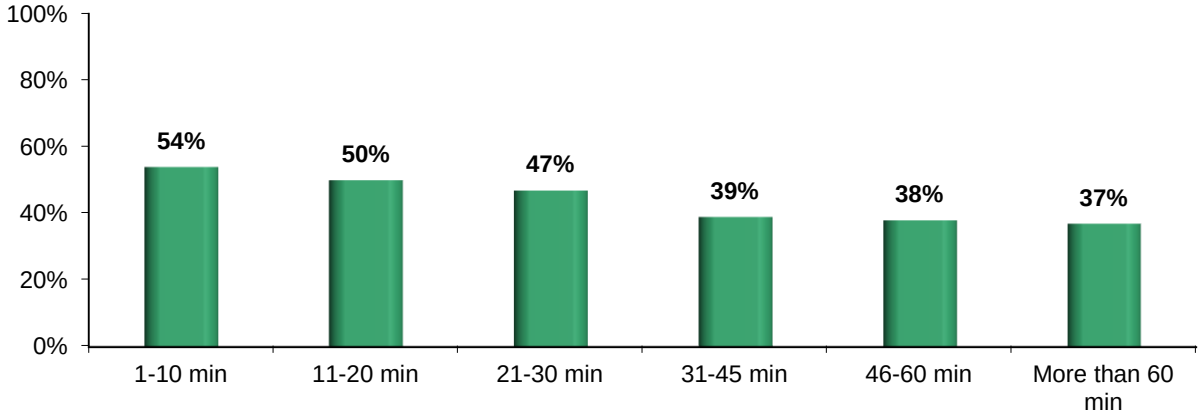
Figure 49
Ratings for Transportation Satisfaction – Rating of 4 or 5
By Primary Commute Mode
(Drive alone n = 3,873, Carpool/vanpool n = 352, Bus n = 296, Train n = 674, Bike/walk n = 148)



Transportation Satisfaction by Travel Time

There is a clear pattern between increasing commute travel time and declining transportation satisfaction (Figure 50). Satisfaction falls as the length of the commute increases, from a high of 54% satisfaction for respondents who have very short commutes of 10 minutes or less, to 37% for respondents who travel more than an hour to work.

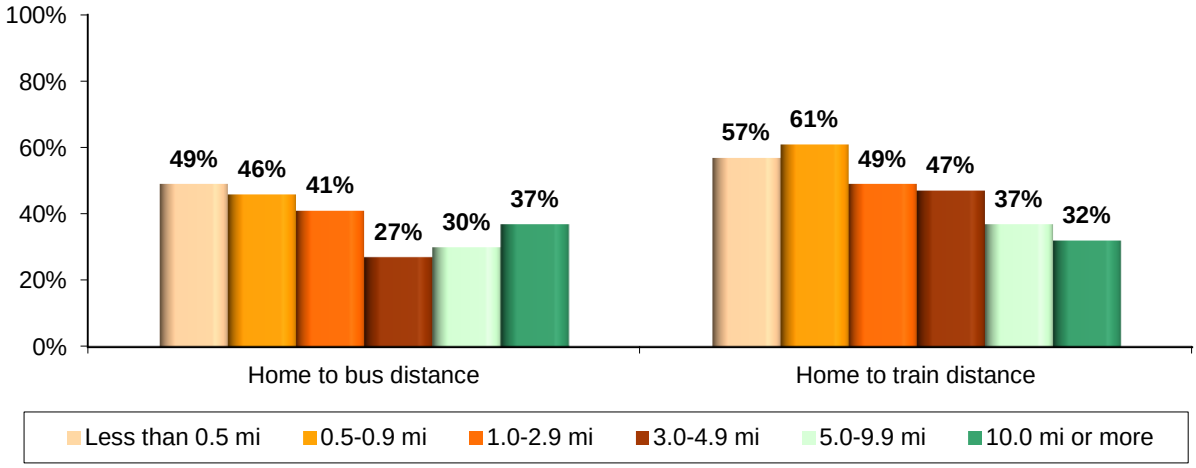
Figure 50
Ratings for Transportation Satisfaction – Rating of 4 or 5
By Commute Travel Time (minutes)
(1-10 min n = 663, 11-20 min n = 1,213, 21-30 min n = 1,009, 31-45 min n = 1,279,
46-60 min n = 771, More than 60 min n = 670)



Transportation Satisfaction by Proximity to Transit

Transportation satisfaction also appears to be related to a respondent's proximity to bus and train stops (Figure 51). Respondents who live close to transit give higher marks for transportation satisfaction than do respondents who live farther away. The pattern is most striking for distance to train. About six in ten respondents who live less than one mile of a train station are satisfied with transportation, compared with only half of respondents who live between one mile and 4.9 miles and three in ten respondents who live 10 miles or more from a train station.

Figure 51
Ratings for Transportation Satisfaction – Rating of 4 or 5
By Distance from Home to Bus Stop and Distance from Home to Rail Station (miles)
(Bus stop Distance – Less than 0.5 mi n = 2,492, 0.5-0.9 mi n = 657, 1.0-2.9 mi n = 749, 3.0-4.9 mi n = 337, 5.0-9.9 mi n = 454, 10.0 mi or more n = 441)
(Train station Distance – Less than 0.5 mi n = 366, 0.5-0.9 mi n = 522, 1.0-2.9 mi n = 1,058, 3.0-4.9 mi n = 531, 5.0-9.9 mi n = 752, 10.0 mi or more n = 1,893)

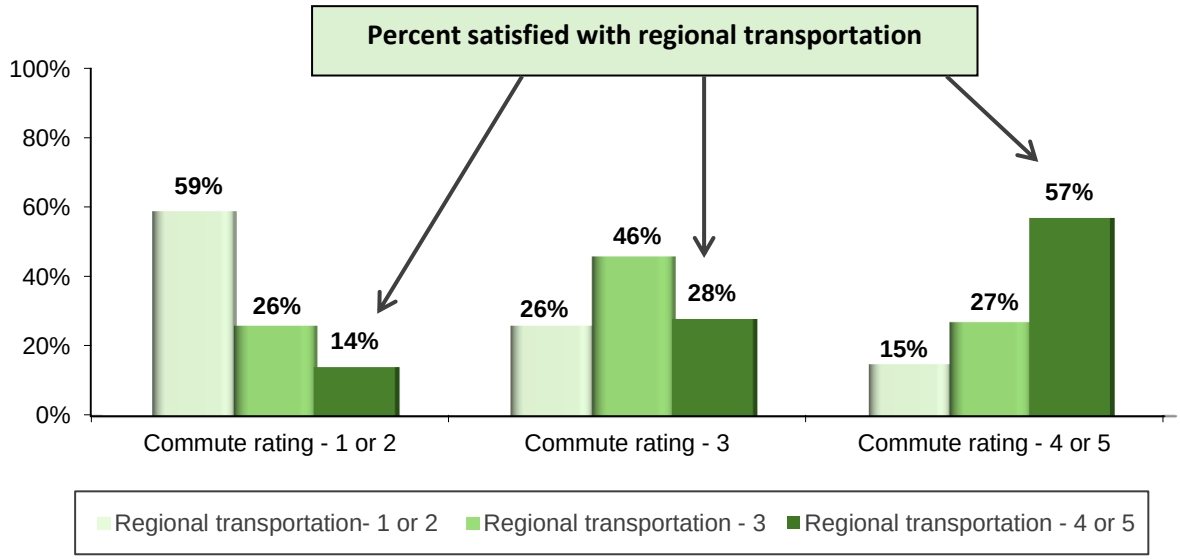


Transportation Satisfaction by Commute Satisfaction

Overall, about 64% of respondents said they are satisfied with their commute, but only 44% are satisfied with the regional transportation system. This implies that most commuters have found an acceptable commute option, but that many still feel the regional transportation is lacking, perhaps because they were considering both work and non-work travel in making their transportation satisfaction ratings.

However, as illustrated in Figure 52, respondents' satisfaction with their commute certainly appears related to their satisfaction with transportation in the region. Among respondents who rated their trip to work as 1 or 2 (dis-satisfied), 59% also are dissatisfied with the regional transportation system and only 14% are satisfied. Conversely, among respondents who rate their commute as a 4 or 5 (satisfied), only15% are dissatisfied and 57% report being satisfied.

Figure 52
Satisfaction with Regional Transportation by Commute Satisfaction
(Commute Rating 1 or 2 n = 934, Commute Rating 3 n = 1,079, Commute Rating 4 or 5 n = 3,614)



Benefits of Ridesharing

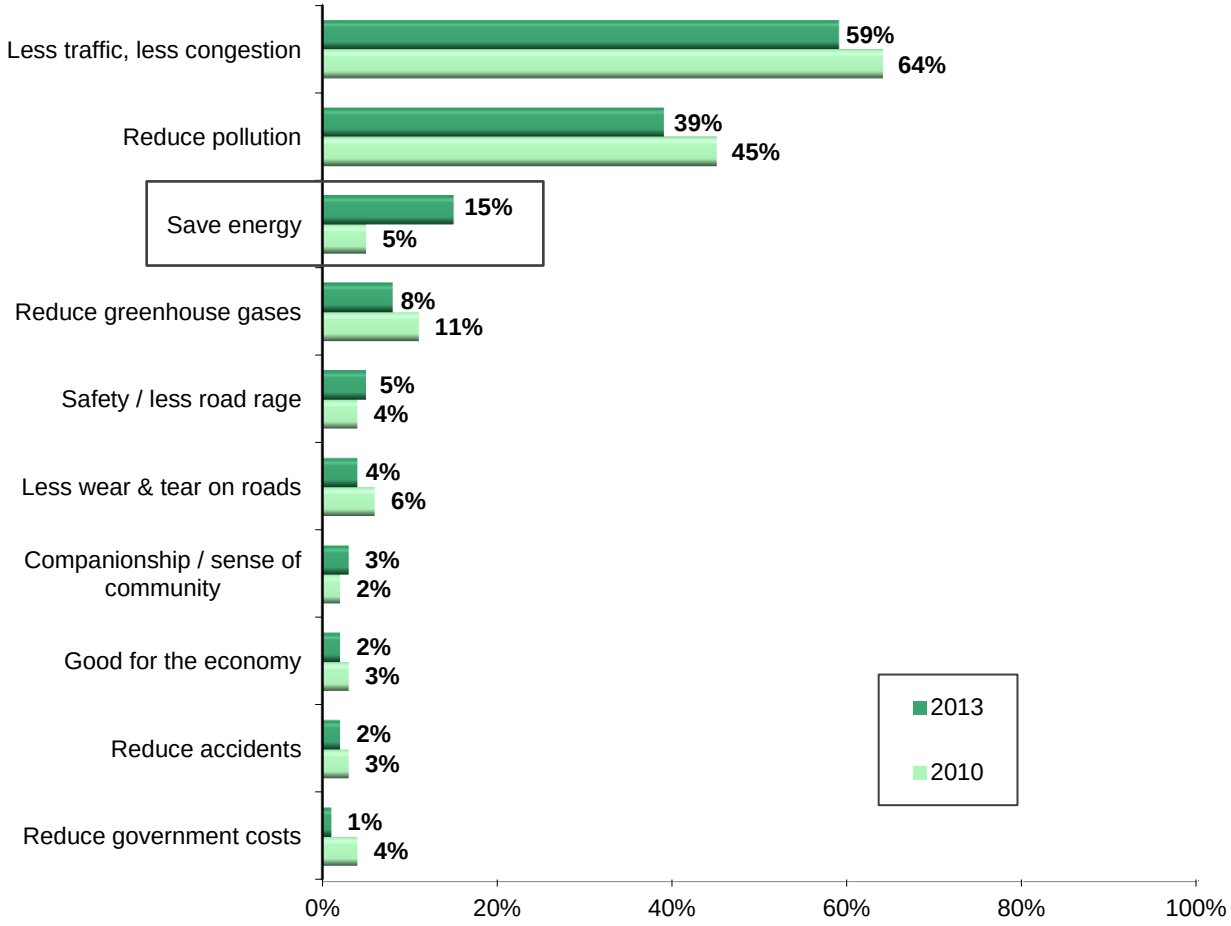
Questions also were added to the 2013 SOC survey to assess commuters' opinions about the benefits generated by commuters' use of alternative modes. First, all respondents were asked, "What impacts or benefits does a community or region receive when people use alternative modes?" Then, respondents who use alternative modes were asked two questions about the personal benefits of alternative modes:

- You said you [bicycle, walk, carpool, vanpool, ride public transportation] to work some days. What benefits have you personally received from traveling to work this way?
- On days that you [carpool, vanpool, ride public transportation] to work, how often do you do you read or write work-related material or check work messages on the way to work?

Societal Benefits of Alternative Mode Use

When asked what benefits a region or community receives from use of alternative modes, 81% of respondents named at least one benefit. Nearly six in ten (59%) respondents said that use of alternative modes could reduce traffic congestion and 39% said it could reduce pollution or help the environment (Figure 53). Fifteen percent cited reduced energy use and eight percent cited reduced greenhouse gases. Smaller percentages of respondents noted other benefits.

Figure 53
Regional / Community Benefits of Alternative Mode \Use
Asked of All Commuters
(2013 n = 5,718, 2010 n = 6,050)



The figure also shows the responses to this question from the 2010 SOC survey. Generally, the responses for 2013 are similar to the 2010 results, except that fewer 2013 respondents mentioned traffic reduction and pollution reduction / reduce greenhouse gases and a much larger share of 2013 respondents mentioned saving energy.

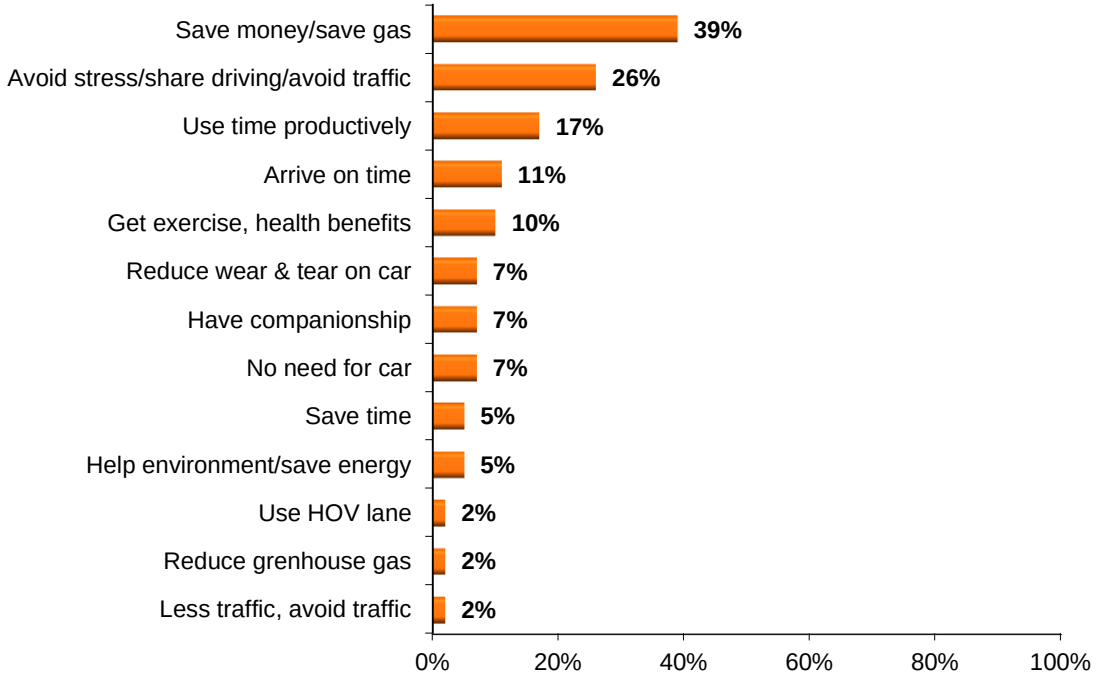
Differences in Social / Community Benefits by Demographic and Travel Characteristics – There were only a few statistical differences in the types of benefits reported by respondent demographic or travel characteristics. A higher share of White than non-White respondents cited reduced traffic (White – 70% vs Non-White – 49%) and environmental benefits (White - 43% vs Non-White – 34%) and a higher percentage of men than women mentioned reduced traffic (Men – 63% vs Women – 57%). Conversely, young respondents, respondents who do not own a household vehicle, and lower-income respondents mentioned most benefits at a lower rate than did other members of these groups.

Personal Benefits of Alternative Mode Use

When respondents who use alternative modes for their commute were asked what personal benefits they receive from using these modes, 90% named at least one benefit. As shown in Figure 54, saving money or gas topped the list of personal benefit; 39% of alternative mode users mentioned this benefit. Respondents mentioned two other benefits that have a financial implication: reduce wear and tear on car (7%) and no need for a car (7%).

Respondents also cited benefits that have a connection to quality of life. One-quarter of respondents said they avoid stress/share driving/avoid traffic. And 17% said using an alternative mode enables them to use their travel time productively. About one in ten said they arrive on time (11%), get exercise or health benefits (10%), or have companionship on their commute (7%).

Figure 54
Personal Benefits of Alternative Mode Use
Asked Only of Alternative Mode Users
(n = 1,575)



Differences in Personal Benefits by Primary Commute Mode – Respondents who use different alternative modes for their commute report receiving different personal benefits, as shown in Table 30 below. Carpoolers/vanpoolers report saving money and saving time, having companionship during their commute, arriving on time, and avoiding stress as benefits. Transit riders primarily mention saving money, avoiding stress, and being able to use travel time productively. Bus riders also noted saving money and train riders also mentioned arriving at work on time. Commuters who bicycle or walk to work overwhelmingly note getting exercise as a benefit of this mode. They also note several of the benefits mentioned by transit riders (avoid stress, no need for car, arrive at work on time), as well as the altruistic benefit of helping the environment.

Table 30
Personal Benefits of Alternative Mode Use
By Primary Commute Mode
(Carpool/Vanpool n = 363, Bus n = 298, Train n = 678, Bike/Walk n = 150)

Personal Benefit	Carpool/ Vanpool	Bus	Train	Bike/Walk
Save money	45%	43%	32%	38%
Avoid stress, relax	13%	29%	32%	34%
No need for a car	3%	9%	9%	10%
Use travel time productively	8%	19%	24%	5%
Less wear and tear on car	10%	6%	6%	4%
Get exercise	0%	4%	6%	80%
Save time, travel faster	9%	2%	4%	2%
Help the environment	2%	2%	1%	8%
Have companionship during commute	17%	2%	2%	1%
Arrive at work on time	16%	7%	11%	11%

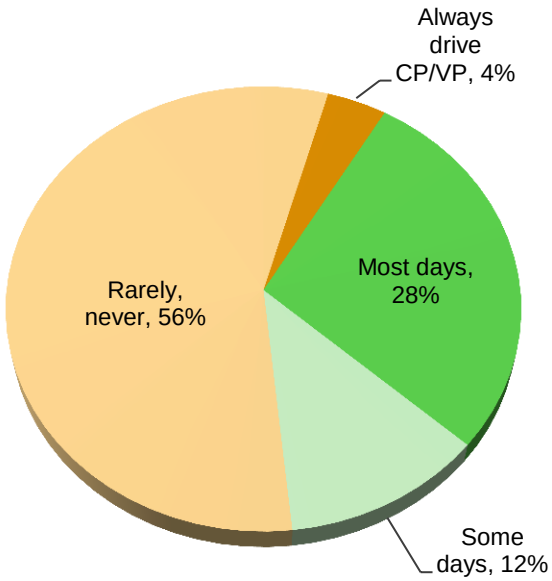
* Each response in the "Other category" mentioned by less than one percent of respondents.

Productive Use of Personal Travel Time

The third question is this series about travel benefits explored the idea that commuters who use alternative modes can make productive use of their travel time. Commuters who carpool, vanpool, or ride transit to work were asked how often they read or write work-related material or check work messages on the way to work. Having time to catch up on work tasks could make their time at the worksite more productive and less stressful. As shown in Figure 55, four in ten of these commuters perform work-related tasks during the commute; 28% perform work-related tasks "most days" and 12% perform work-related tasks "some days."

Conducting work-related business during the commute is more common among transit riders than carpoolers. Nearly half (47%) of train riders and 41% of bus riders said they perform work-related tasks during their commute, compared with 24% of carpoolers. Young commuters also perform these tasks at a higher rate than average; 50% of commuters who are younger than 24 years old perform these tasks most days (21%) or some days (18%).

Figure 55
Frequency of Work-Related Tasks During Commute Time
Asked Only of Alternative Mode Users
(n = 1,438)



3-E AWARENESS OF COMMUTE ADVERTISING AND SERVICES

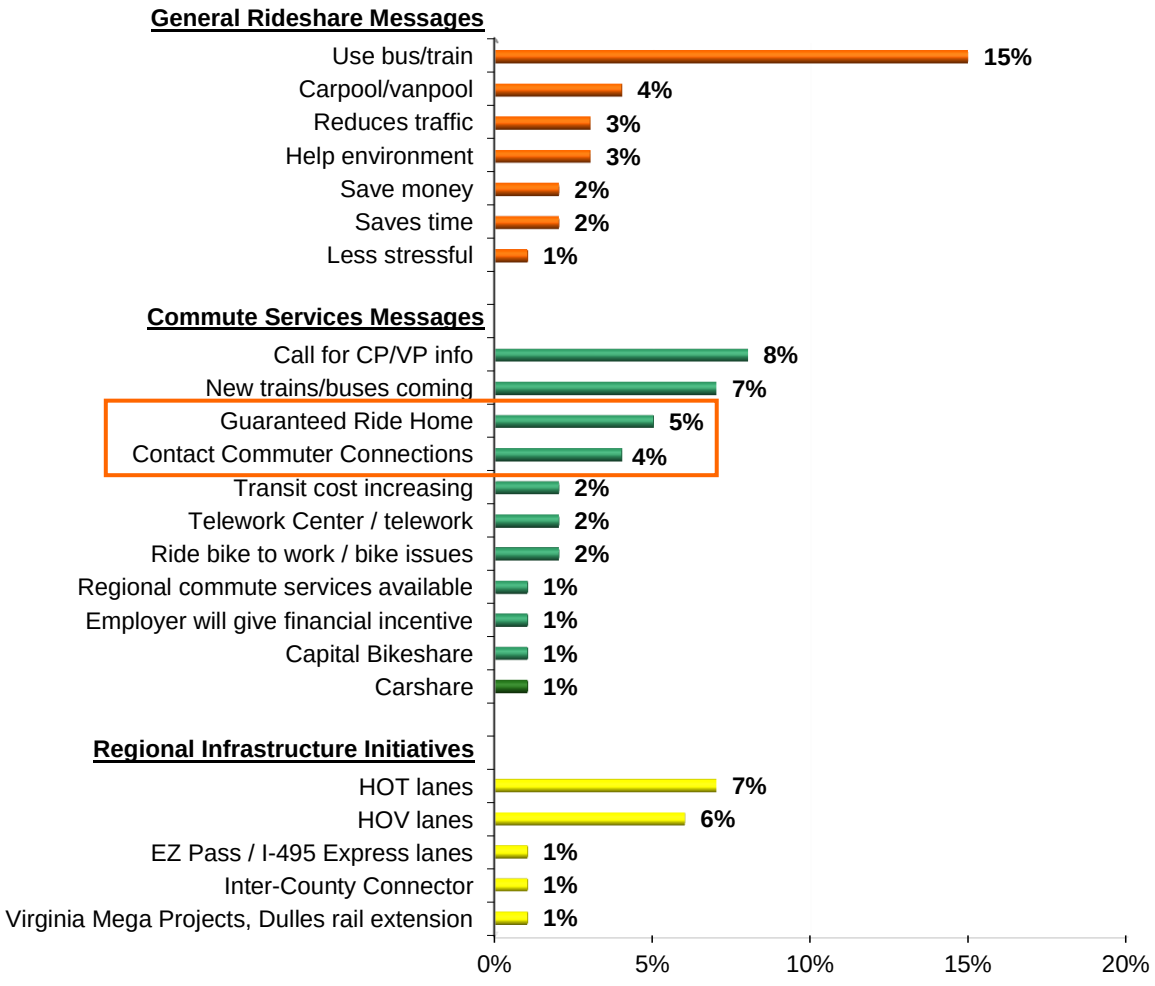
Commute Advertising Recall

The next set of questions in the survey inquired about respondents' awareness of commute information advertising. More than half (55%) of all respondents said they had seen, heard, or read advertising about commuting in the six months prior to the survey. This is about the same percentage as the percentages estimated in 2010 (58%) and 2007 (52%) SOC surveys.

Message Recall

These respondents were then asked what messages they recalled from this advertising. Two-thirds (67%) could cite a specific message, a similar share as could recall a message in 2010 (70%) and 2007 (65%). Figure 56 lists messages respondents in the 2013 survey remembered and the percentage of respondents who cited each message. The messages are divided into three categories: general rideshare messages, commute services messages, and regional infrastructure initiatives.

Figure 56
Commute Information / Advertising Messages Recalled
(Note: Scale extends only to 20% to highlight difference in responses)
(n = 3,733)



General Rideshare Messages – The top reason noted overall, is a general rideshare message, "use the bus, train, Metrorail," recalled by 15% of respondents. About four percent said they recalled a general message of "carpool or vanpool." Small numbers of respondents mentioned rideshare benefit messages: reduces traffic (3%), helps the environment (3%), saves money (2%), saves time (2%), and less stressful (1%).

Commute Program/Service Messages – The most common messages recalled in the commute services category include that "you can call for carpool/vanpool information" (8%) and new trains or buses are coming (7%). Five percent of respondents mentioned Guaranteed Ride Home, about half percentage who volunteered this response in 2010 (9%). Four percent mentioned "contact Commuter Connections," the same percentage as gave this response in 2010.

Regional Infrastructure Initiatives – Several commuters mentioned several existing or new regional infrastructure initiatives that have recently been in the news. Topping the list is the High Occupancy Toll (HOT) lanes that recently opened on the Capital Beltway in Virginia; seven percent of respondents said they had heard a message about this topic. Six percent said they heard a message about HOV lanes and small percentages of respondents mentioned another regional project.

Recall of Advertising Sponsors

Forty-seven percent of respondents who could cite an advertising message said they remembered who sponsored the ad (Table 31). The Washington Metropolitan Area Transit Authority (WMATA, Metro) was named by 17% of respondents, a slight drop from the 20% who noted this sponsor in 2010 and 2007. Commuter Connections or COG were named by 12%, the same percentage as gave this response in 2007 (12%). The Virginia Department of Transportation and the Maryland Department of Transportation were noted by four percent and two percent, respectively, One percent of respondents named Arlington County Commuter Services as the sponsor. Many other organizations also were named in 2013, but each was named by less than one percent of respondents.

Table 31
Recall of Advertising Sponsors
(n = 2,457)

Advertising Sponsor	Percentage
Metro, WMATA	17%
Commuter Connections, MWCOG	12%
Virginia Dept. of Transportation (VDOT)	4%
Maryland Department of Transportation (including Maryland State Highway Administration, Maryland MTA)	2%
Arlington County Commuter Services	1%
Don't remember, don't know	53%
Other *	12%

* Each response in the "Other category" mentioned by less than one percent of respondents.

Advertising Sources/Media

Table 32 presents the primary sources or media through which respondents heard, saw, or read commute advertising in 2013, with comparisons to results for 2010, 2007, and 2004. The 2013 sources are similar to those noted in 2010 and 2007. The most common 2013 source is radio; a third of respondents who recalled an ad said they heard it on the radio. This source was named by a much higher share of respondents in 2004 (55%), but the results have been similar for this source since 2007. Other common sources named in 2013 included sign on a transit vehicle or at a bus stop or Metro station (25%), newspaper (20%), and television (18%). Smaller shares of respondents cited other sources.

Table 32
Advertising Source/Media

Advertising Source/Media*	2013 SOC (n = 2,457)	2010 SOC (n = 2,756)	2007 SOC (n = 2,275)	2004 SOC (n = 4,133)
Radio	33%	40%	35%	55%
Sign on transit vehicle, at bus stop, or Metro station	25%	22%	20%	9%
Newspaper	20%	18%	22%	12%
Television	18%	24%	25%	25%
Roadside billboard/ad	9%	5%	2%	2%
Postcard in the mail	5%	3%	3%	1%
At work	5%	6%	5%	<1%
Website/internet	2%	2%	2%	2%
Smart phone / Tablet	1%	---	---	---
Other **	3%	4%	3%	4%

* Might add to more than 100% because multiple responses were permitted.

** Each response in the "Other category" mentioned by less than one percent of respondents.

Commute Advertising Impact

Persuasiveness of Advertising Messages

The advertising appeared to have an effect for some respondents. One-quarter (25%) of respondents who had seen, heard, or read advertising said they were more likely to consider ridesharing or using public transportation after seeing or hearing the advertising, about the same percentage as noted this willingness in 2010 (24%), but higher than the 18% share from the 2007 SOC survey.

The respondents who are most persuaded by the advertising are those who already use alternative modes. About 42% of bus riders, 25% of train riders, and 34% of bike/walk commuters said they were more likely to consider using an alternative after hearing the ads, compared with only 22% of respondents who drive alone and the same percentage who carpool.

White respondents are less likely that are Non-Whites to say the advertising would influenced their receptivity to alternative modes; only 20% of Whites said they were more likely to consider ridesharing or transit after seeing or hearing the ads, compared with about three in ten respondents in other ethnic groups (Hispanic – 28%, African-American – 30%, Asian – 30%).

Commute Actions Taken After Hearing or Seeing Commute Advertising

Respondents who recalled advertising messages were asked if they had taken any actions to try to change how they commute since seeing or hearing the ads. About nine percent of these respondents said they did take some action. Three percent said they sought information or services for commuting through the Internet, a local or regional commute organization, or from a transit agency. One percent said they registered for a regional or local commute service (e. g., Guaranteed Ride Home) or started using an HOV lane to get to work.

Two percent (46 respondents) of the respondents who recalled an ad message said they tried or started using an alternative mode for commuting. Most tried or started using transit a bus to get to work, a small share tried or started bicycling or walking, carpooling or vanpooling, or teleworking. While these respondents equal only about one percent of the total commuter population, they represent more than 20,000 commuters. Half (53%) of the respondents who started using a new alternative mode drove alone before making the switch. The other half had been using a different alternative mode.

Influence of Ads on Commute Change Actions

A large majority (84%) of respondents who took an action to change their commute said the advertising they saw or heard encouraged the action. And respondents who made a mode change had driven alone for 52% of their commute trips before they made the change. This suggests that the advertising, although having a small impact on mode shifts, is acquainting drive alone commuters with other commuting opportunities and encouraging them to seek more information on these options.

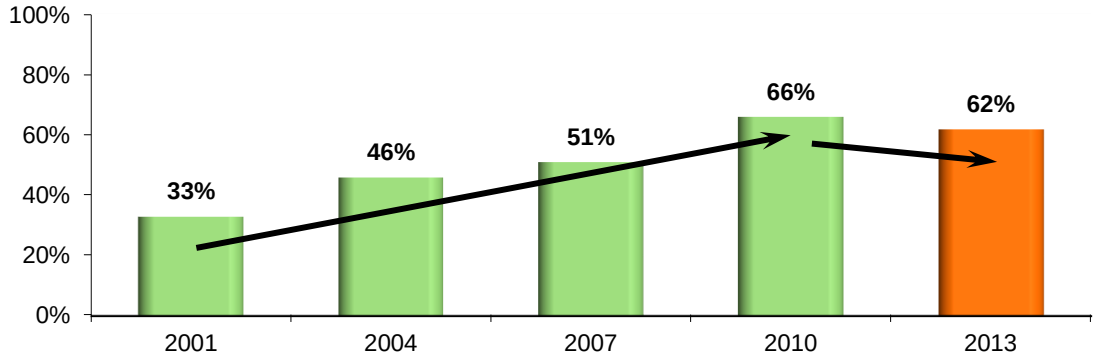
3-F AWARENESS AND USE OF COMMUTER ASSISTANCE RESOURCES

Awareness of Commuter Assistance Numbers / Websites

The next set of questions in the survey investigated commuters' knowledge and use of regional commute assistance services. First, respondents were asked if they are aware of a telephone number or web site they could use to obtain information on ridesharing, public transportation, HOV lanes, and telework in the Washington region. Six in ten (62%) of respondents said they know such a number exists. The remaining respondents either said there is not such a phone number or website (19%) or that they do not know if a phone number or web site existed (19%).

As illustrated in Figure 57, awareness of regional commute information resources fell slightly between 2010 and 2013, but the current level of 62% awareness is still substantially higher than the rates in 2001, 2004, and 2007.

Figure 57
Awareness of Regional Commute Information Resource
(2001 n = 7,200, 2004 n = 7,200, 2007 n = 6,600, 2010 n = 6,629, 2013 n = 6,335)



Awareness by Population Sub-Group

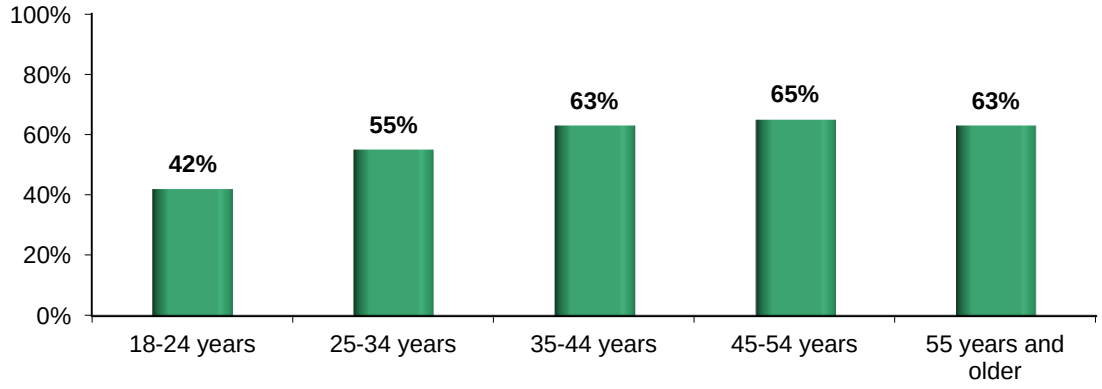
Awareness of a regional information resource is not uniformly distributed across all respondents. Awareness is consistent for residents of all three "ring" sub-areas (Inner Core – 62%, Middle Ring – 61%, Outer Ring – 62%). But a higher percentage of Inner Core workers (64%) said they are aware of a regional phone number or website, compared with lower awareness among commuters who work in the Middle Ring (61%) and Outer Ring (56%).

Awareness also is highest among commuters who currently use an alternative mode for commuting. Only 60% of drive alone commuters know of a regional information number or website, compared with 64% of commuters who carpool or vanpool, ride a bus, and walk/bike to work. Among train riders, the awareness percentage is 66%. And awareness is substantially higher (70%) among respondents who said they saw or heard commute advertising in the past year than for respondents who do not recall advertising (50%).

Several striking differences are noted for respondents of different demographic groups. Awareness is higher among White (66%) and African-American (62%) respondents than for Asian (57%) and Hispanic (48%) respondents. And awareness increases strongly with increasing income; only 39% of respondents with household incomes of less than $30,000 said a regional resource is available, compared with 56% of respondents with incomes of $30,000 to $59,999, 61% who have incomes of $60,000 to $99,999, and 67% of respondents with household incomes of $100,000 or more.

Awareness also rises with increasing age. As presented in Figure 58, only 42% of respondents who are under 25 years of age said they are aware of a regional resource, compared with 55% of respondents who are between 25 and 34 years old and more than six in ten respondents who are 35 years or older.

Figure 58
Awareness of Regional Commute Information Resources
By Respondent Age
(18-24 years n = 193, 25-34 years n = 665, 35-44 years n = 1,319, 45-54 years n =1,884, 55 year and older n = 2,066)



Recall of Web Sites and Phone Numbers

When respondents who said there is a regional resource were questioned on the actual number or website, about four in ten, or 25% of all regional workers, could name a specific number or web site (Figure 59).

Figure 59
Summary of Recall of Regional Commute Information Phone Number or Website - 2013
(n = 6,335)

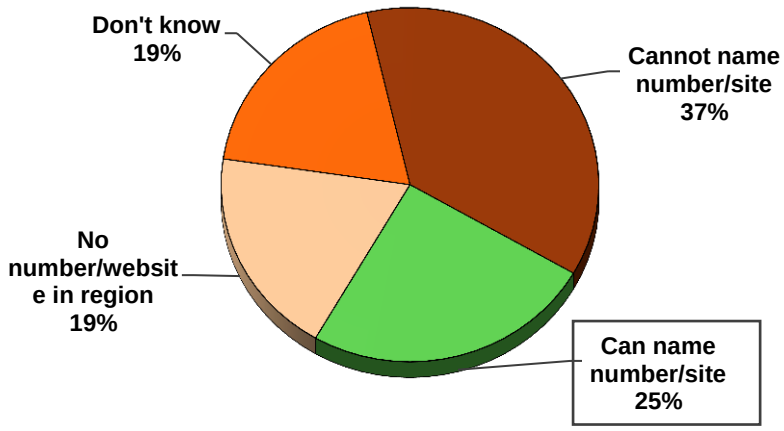


Table 33 summarizes the awareness of all numbers/web sites, as percentages of the regional population. About 15% named a specific WMATA phone number or web site and one percent mentioned WMATA or Metro, but did not specify the number or site. Commuter Connections is second only to WMATA as a regional information source,

named by about three percent of all respondents. Respondents named 34 additional organizations that they knew or believed offered commuter assistance and information. Each of these was named by less than one percent of respondents, but collectively they accounted for 11% additional responses. The count of outside resources continues to grow; in 2010, respondents named 20 sources other than WMATA and Commuter Connections / COG. This suggests commuters are more aware of resources and/or that more resources are available now than in 2010.

Table 33
Recall of Regional Commuter Assistance Telephone Number or Web site
(2013 n = 6,335, 2010 n = 6,629, 2007 n = 6,600, 2004 n = 7,200)

Number or Web site	2013 SOC	2010 SOC	2007 SOC	2004 SOC
Not aware of phone number/web site	19%	15%	31%	38%
Don't know if a phone number exists	19%	19%	18%	16%
Aware of phone number/web site, but cannot name it	37%	40%	30%	31%
Aware of phone number/web site and can name it	25%	26%	21%	15%
Telephone numbers recalled:				
1-800-745-RIDE (7433) Commuter Connections	**0.9%**	**0.7%**	**0.8%**	**1.5%**
202-637-7000 Metro, WMATA	3.2%	2.4%	3.5%	1.4%
Web sites recalled:				
www.mwcog.org	**0.2%**	**0.4%**	**0.2%**	**0.2%**
www.commuterconnections.org	**0.8%**	**0.8%**	**0.3%**	**0.3%**
www.commuterconnections.com	**1.2%**	**1.1%**	**1.0%**	**1.0%**
wwww.wmata.com	10.1%	6.9%	6.8%	6.8%
www.MetroOpensDoors.com	1.4%	2.9%	0.5%	N/A
WMATA website (unspecified)	0.5%	3.9%	N/A	N/A
Other**	11.3%	12.4%	4.7%	3.0%

* Might add to more than 100% because multiple responses were permitted.

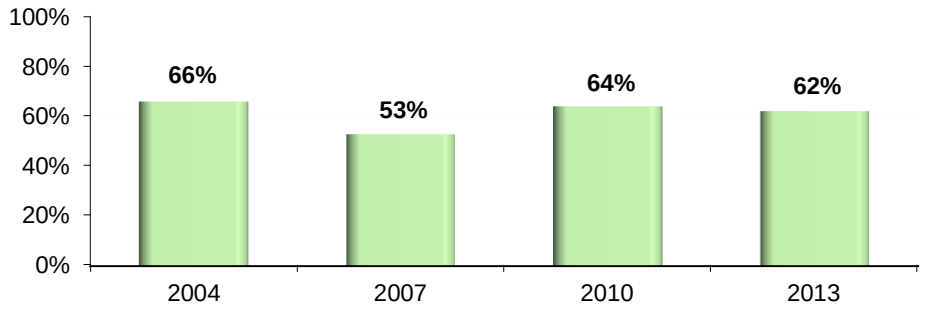
** Each response in the "Other" category mentioned by less than one percent of respondents

Awareness and Use of Commuter Connections Programs

The "awareness" section of the questionnaire also explored respondents' awareness of the Commuter Connections Network and the services it offers commuters. Some indications of respondents' awareness of the program appears in unprompted questions about regional commute advertising messages, advertising sponsors, and regional commuter information resources.

As noted earlier, three percent of the regional population named Commuter Connections as a regional information source without being prompted with the organization's name. But when directly asked if they have heard of an organization in the Washington region called Commuter Connections, an additional 59% of respondents said they have heard of the program for a total of 62%, slightly lower than the 64% who knew of Commuter Connections in 2010 (64%), but still above the 53% from the 2007 SOC survey (Figure 60).

Figure 60
Awareness of Commuter Connections (Prompted or Unprompted)
(2004 n = 7,200, 2007 n = 6,600, 2010 n = 6,629, 2013 n = 6,335)



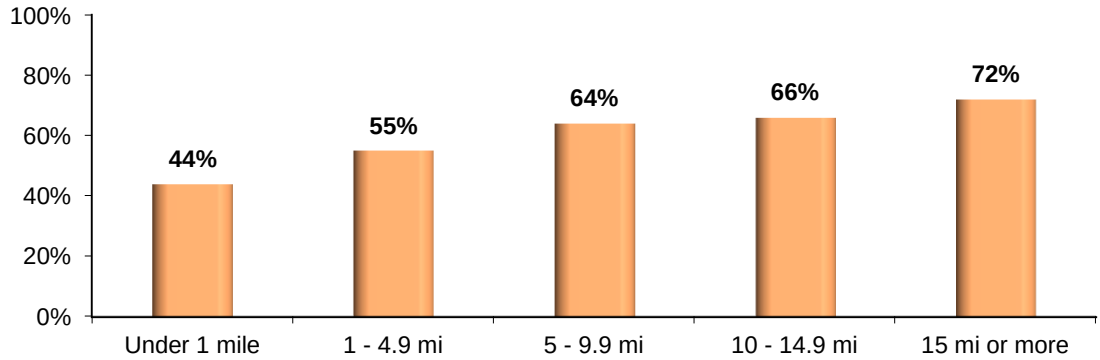
Awareness of Commuter Connections by Population Sub-Group

Awareness of Commuter Connections is notably higher outside of the Inner Core; 65% of Middle Ring residents and 70% of Outer Ring residents have heard of Commuter Connections, while only 47% of Inner Core residents said they know of the program. But respondents are about equally likely to know of Commuter Connections regardless of where they work (Inner Core – 61%, Middle Ring – 64%, Outer Ring, 61%).

Awareness of Commuter Connections differs by respondents' commute mode, but with a different pattern than was noted earlier for awareness of an unnamed "regional information resource." Commuters who drive alone and those who carpool/vanpool are more likely to know Commuter Connections (Drive alone - 65%, Carpool/vanpool – 66%) than are commuters who ride a train (56%) or bus (49%). Awareness is even lower for commuters who walk or bike to work; only 43% of these commuters said they have heard of Commuter Connections.

Awareness of Commuter Connections shows a strong relationship by the distance a commuter travels to get to work. As illustrated in Figure 81, only 44% of respondents who travel less than one mile to work know of Commuter Connections, compared with 55% of respondents who travel between 1 mile and 4.9 miles, about 64% of respondents who travel between 5 miles and 14.9 miles, and more than seven in ten respondents who commute 15 miles or more.

Figure 61
Awareness of Commuter Connections
By Commute Travel Time (minutes)
(Under 1 mi n = 112, 1 – 4.9 mi n = 702, 5 – 9.9 mi n = 1,022, 10 – 14.9 mi n = 743, 15 mi or more n = 2,543)



Referral Sources to Commuter Connections Program

Table 34 displays the methods by which respondents reported learning about Commuter Connections in 2013, with comparisons to sources named in 2010, 2007, and in 2004. In 2013, about four in ten (42%) respondents cited the radio as their source of information and about 14% named television. Word of mouth / referrals (10%), sign/billboard (7%), and newspaper ads or articles (6%), Internet (6%), and employer (5%) are other common sources. About 11% said they didn't remember how they heard about Commuter Connections. The referral sources have remained essentially the same since 2007.

Although radio and television have declined as referral sources since 2004, they continue to play a role in raising respondents' awareness of Commuter Connections. Respondents who said they recalled hearing commute advertising are much more likely to know of Commuter Connections than are those who do not recall hearing or seeing advertising; more than seven in ten (72%) respondents who recalled hearing or seeing advertising know of Commuter Connections, while among respondents who do not recall advertising, the awareness if only 49%.

Respondents who knew of Commuter Connections also were asked if they contacted the program or visited a Commuter Connections or COG website in the past year. Ten percent of respondents who knew of Commuter Connections had contacted the program, representing about six percent of all employed residents of the region.

Table 34
Commuter Connections Program Referral Sources

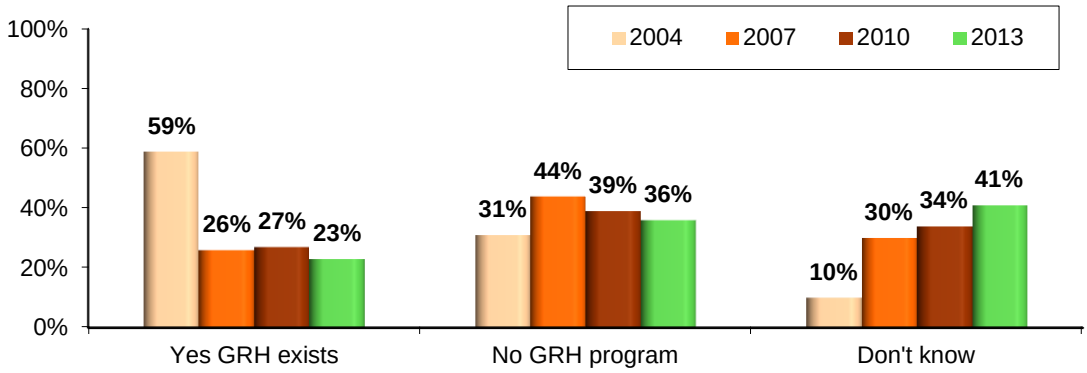
Information Source	2013 SOC (n = 4,046)	2010 SOC (n = 4,398)	2007 SOC (n = 3,614)	2004 SOC (n = 4,133)
Radio	42%	48%	43%	56%
Television	14%	15%	16%	19%
Word of mouth, friend, co-worker	10%	9%	8%	5%
Sign/billboard	7%	7%	7%	5%
Newspaper ads/article	6%	6%	7%	4%
Internet	6%	4%	3%	2%
Employer	5%	4%	4%	2%
Sign on transit vehicle, bus stop	3%	4%	2%	N/A
Brochure	2%	1%	1%	1%
Don't know	11%	11%	14%	10%

Awareness of Regional Guaranteed Ride Home (GRH)

Since 1997, Commuter Connections has offered Guaranteed Ride Home to eliminate alternative mode users' fear of being without transportation in the case of an emergency. The program provides free rides in a taxi or rental car in the event of an unexpected personal emergency or unscheduled overtime.

Survey respondents who did not work at home all the time were asked if they knew of a regional GRH program available for commuters who rideshare or use public transportation. As shown in Figure 62, about a quarter (23%) replied there is such a program, 36% mentioned there is no such program, and the remaining 41% were unsure. As also indicted by the figure, awareness of GRH in 2013 is slightly less than was found in the 2010 and 2007 SOC surveys. But awareness is considerably lower than the awareness in 2004, when 55% of respondents said a regional GRH program existed.

Figure 62
Awareness of Regional GRH Program – 2004, 2007, 2010, 2013
(2004 n = 6,867, 2007 n = 6,071, 2010 n = 6,084, 2013 n = 5,738)



Awareness of regional GRH is strongly tied to respondents' awareness of Commuter Connections; 85% of commuters who said they have heard of Commuter Connections know there is a regional GRH program, compared with only 55% of commuters who do not know Commuter Connections.

Awareness of GRH by Commute Mode – As shown in Table 35, awareness of GRH services varies by the respondents' commute mode. Respondents who ride a commuter train are much more likely than are other commuters to know about GRH. But bus riders and carpoolers also have higher than average awareness of the program. Awareness is similar for users of other modes.

Table 35
Awareness of Regional GRH Program
by Current Primary Mode

Current Primary Mode		2013 SOC	2010 SOC	2007 SOC	2004 SOC
Drive alone	(2013 n = 4,080)	21%	27%	26%	61%
Carpool/vanpool	(2013 n = 363)	29%	39%	29%	66%
Bus	(2013 n = 298)	34%	32%	22%	52%
Metrorail	(2013 n = 615)	23%	31%	26%	55%
Commuter train	(2013 n = 64)	70%	67%	56%	55%
Bike/walk	(2013 n = 150)	16%	26%	15%	43%

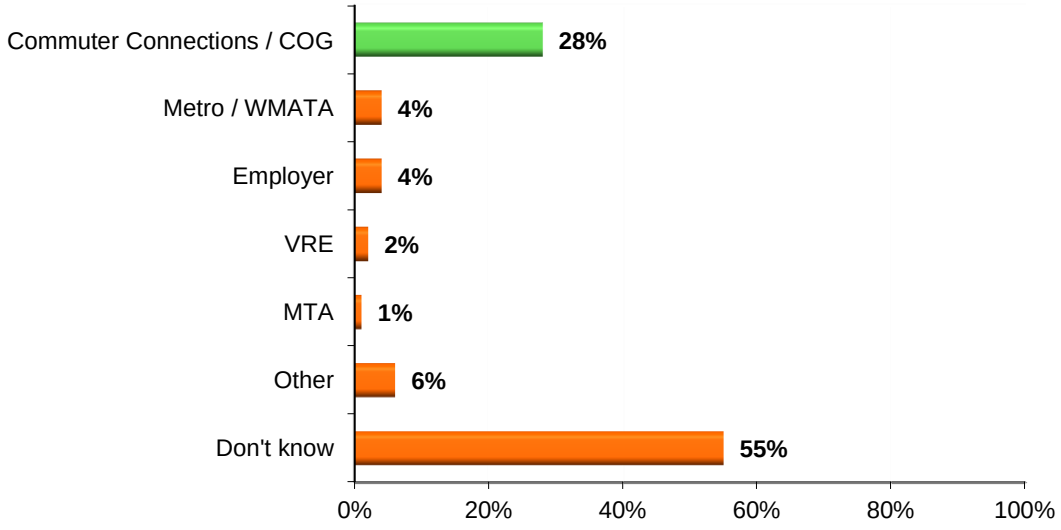
Awareness of GRH by Home and Work Location – Table 36 displays awareness of GRH services by the home and work locations of respondents. Respondents who live in the Middle Ring demonstrate higher awareness of GRH than do Inner Core commuters. Awareness is higher still among respondents who live in the Outer Ring. The pattern is exactly opposite for work location; respondents who work in the Inner Core area are more likely to know about GRH than are respondents who work in either the Middle Ring or Outer Ring sub-areas.

Table 36
Awareness of Regional GRH Program
by Home and Work Location

Location – Ring Designation		Percentage
Home Location		
Inner Core	(n = 1,555)	18%
Middle Ring	(n = 1,568)	23%
Outer Ring	(n = 2,615)	29%
Work Location		
Inner Core	(n = 2,448)	26%
Middle Ring	(n = 1,875)	22%
Outer Ring	(n = 1,393)	19%

GRH Program Sponsor – Respondents who said they believe there is a regional GRH program were asked who sponsors this service. About three in ten (28%) said Commuter Connections or COG / Council of Governments sponsors the program (Figure 63). One in ten said that WMATA or Metro (9%) sponsors the program and eight percent said it was offered by their employer. Smaller shares of respondents mentioned another organization.

Figure 63
Awareness of Who Sponsors Regional GRH Program
Of Respondents who said a Regional GRH Program Exists
(n = 652)



Interest in Instant Carpooling

The 2013 survey included two new questions related to commuters' interest in an "instant carpooling" match service that would help commuters find carpool partners for a single trip. Respondents were read the following description of the proposed service:

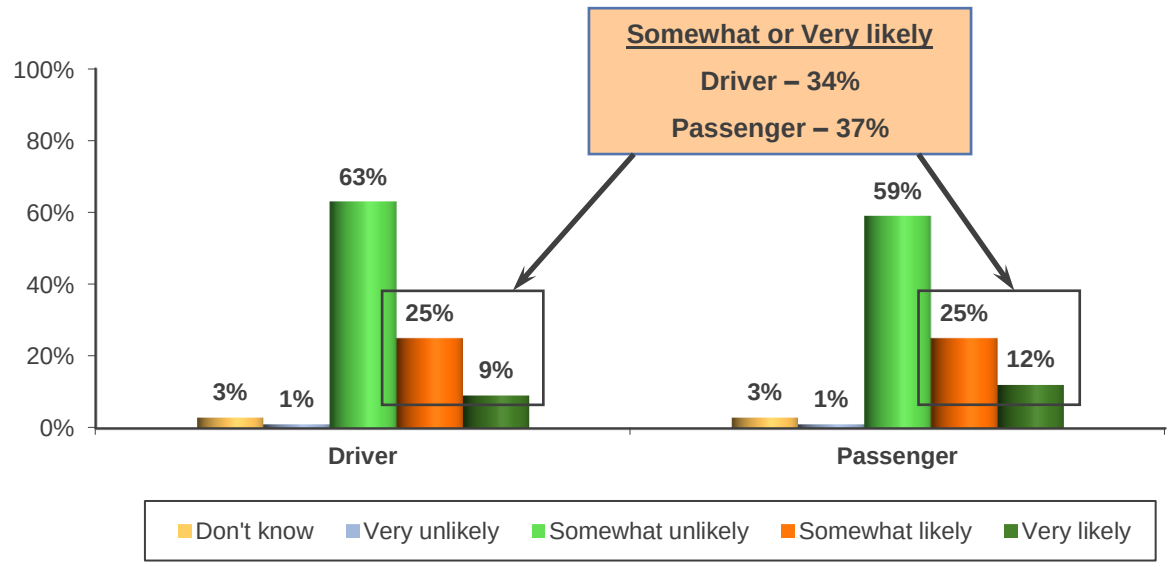
> "Now, I'd like your opinion on a new service that might be offered in the Washington area – that is, an instant carpool service that would make it easy for you to arrange to share a ride for a single trip on short notice. Registered members who want to share a ride would post a request to a Smart phone-accessible application. Other members would be notified of requests through email or texts and could respond for rides they are willing to share."

Respondents were then asked two questions about their willingness to use such a service as a driver and as a rider:

- "If a service like this was available in the region and drivers were paid $0.20 per mile when they provide a ride, how likely would you be to use it when you are the driver?
- "How likely would you be to use it when you are a rider or passenger, if you had to pay $0.20 per mile?"

More than a third of commuters expressed interest in using the service as a driver; nine percent said they would be "very likely" to use the service and 25% said they would be "somewhat likely" to use it (Figure 64). Commuters are slightly more interested in using the service as a passenger; 12% are "very likely" and 25% are somewhat likely" to use it.

Figure 64
Interest in Instant Carpooling – As Driver and As Rider
(n = 6,187)



Interest by Home and Work Location – Respondents who live in the Middle and Outer Ring sub-areas express greater interest in instant carpooling as a driver than do respondents who live in the Inner Core (Home area: Inner Core – 28%, Middle Ring – 35%, Outer Ring – 35%). A similar result is evident for respondents' work location (Work area: Inner Core – 31%, Middle Ring – 36%, Outer Ring – 36%). The lower interest among Inner Core respondents could reflect their greater overall access to transportation services; they might feel they don't need the service, given the wide range of instant transportation options (transit, bikeshare, carshare, taxi) that are readily available to them. But respondents are equally interested in the service as a rider, regardless of where they live or work.

Interest by Commute Mode – As indicated by the comparison presented below, respondents who commute primarily by bus report greater overall interest in instant carpooling than do respondents who use other modes, for use as both a driver and rider. Respondents who drive alone to work and commuters who carpool / vanpool are about equally likely to try the service as a driver, but carpoolers are more interested in using instant carpooling as a rider. Train riders and bike/walk commuters are least likely to be interested in the service as a driver, but bike/walk commuters show significant interest as riders. Their strong rider interest could reflect lower car availability, compared with other mode users, and a desire to have access to a service that extends their destination options.

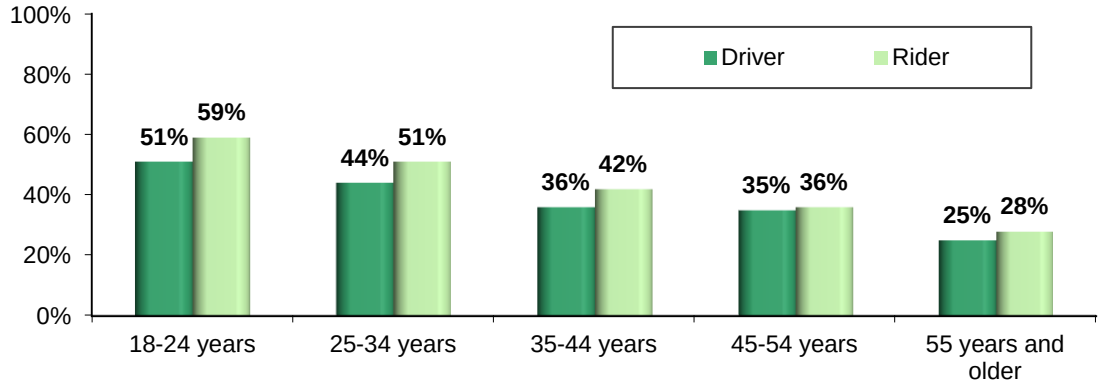
	Interest in Using Service as:	
Primary Mode	Driver	Rider
- Bus (n = 298)	**44%**	**52%**
- Carpool (n = 363)	37%	**45%**
- Drive alone (n = 4,080)	35%	35%
- Bike/walk (n = 150)	29%	**46%**
- Train (n = 678)	29%	39%

Interest by Demographic Sub-group – Interest in instant carpooling also varies by respondents' demographic characteristics. Interest is strongest among Hispanic and Asian respondents; 50% of Hispanics and 40% of Asians said they are likely to use the service as a driver, compared with only 32% of African-American respondents and 29% of Whites. The pattern is similar for use as a passenger.

Male respondents are slightly more interested (36%) than are female respondents (32%) in participating in the service as a driver, but there is no statistical difference in their interest as a rider (Male – 37%, Female – 38%).

Younger respondents express substantially greater interest in the service, as both a driver and rider, than do older respondents (Figure 65). More than half (51%) of respondents who are under 25 years of age said they would be likely to use the service as a driver and 59% would be likely to use it as a rider. Among respondents who are 55 years or older, only 25% said they would be likely to try instant carpooling as a driver and 28% as a rider.

Figure 65
Interest in Instant Carpooling – As Driver and As Rider
By Respondent Age
(18-24 years n = 193, 25-34 years n = 665, 35-44 years n = 1,319, 45-54 years n =1,884, 55 year and older n = 2,066)

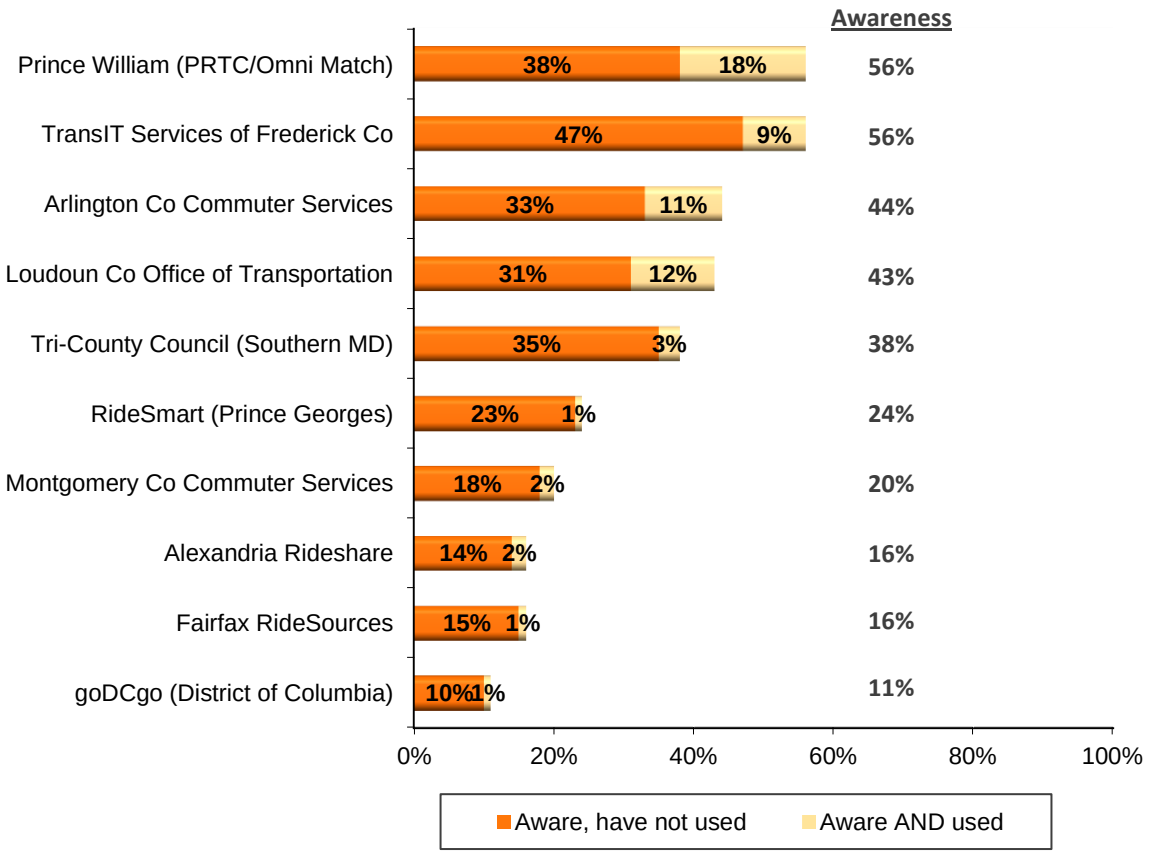


Awareness and Use of Local Commuter Assistance Programs

Many of the commute services offered in the Washington region are promoted, supported, or administered by local commute program organizations. Ten organizations serve as program partners with Commuter Connections, each serving a designated geographic area. To test awareness and use of these programs, respondents who either live or work in a organizations service area were asked if they had heard of the organization and if they had used any services of the program. Commuters who live and work in different jurisdictions were asked about both the organization in their home area and the organization in their work area.

Figure 66 presents the percentage of respondents who said they have heard of each of the ten organizations, when prompted with the organizations' names. Awareness of these programs ranged from 11% to 56% of respondents who were asked the questions. Five of nine programs examined are known to at least a third of the target area respondents.

Figure 66
Heard of / Used Local Jurisdiction Commute Assistance Program
(Prince William n = 606; Frederick n = 594, Arlington n = 851, Loudoun n = 635, Southern Maryland n = 1,170; Prince George's n = 859, Montgomery n = 868, Alexandria n = 728, Fairfax n = 1,200, District of Columbia n = 1,940)



Respondents who knew of a local organization were asked if they contacted it. Figure 66 also shows these results. Use ranges from one percent to 18% of respondents who live or work in the service area. Eighteen percent of respondents who live or work in the PRTC/Omni Match are have contacted this organization. Programs in Loudoun

County, Arlington County, and Frederick County all have been used by about one in ten of the target audience. Other programs have lower use rates.

With the exception of Arlington County Commuter Services, both awareness and use are generally higher for programs in outer jurisdictions (Frederick, Loudoun, Prince William, Tri-County Council of Southern Maryland). The relationship to the location in the region is likely because outer jurisdiction commuters encounter more congestion in their travel and have longer commute times and distances, which would encourage them to seek options for travel to work.

Use also is higher for programs associated with transit agencies (Frederick, Loudoun, Prince William). This connection might be due to higher visibility of the services and/or to the broader range of services that these programs offer. In the inner jurisdictions, transit assistance often is provided by transit organizations that are separate from the local commute assistance program.

It also is important to note that both name recognition and service use for any of these programs is complicated by the interwoven nature of these programs with Commuter Connections. For many years, all of the programs have been jointly branded with Commuter Connections, with the majority of commute program advertising being disseminated through regional "mass marketing" umbrella campaigns administered by Commuter Connections. Few of the local programs conduct commuter level outreach with brand name recognition as a goal. So it is not surprising that awareness of specific program names is low in some areas.

Additionally, several of the services that the programs promote (e.g., regional rideshare matching, Guaranteed Ride Home, Bike-to-Work Day), are publicly administered by and branded as Commuter Connections' programs. So, while each of the local programs offers independently-sponsored services, some of the most visible services that they promote will be associated with Commuter Connections.

3-G EMPLOYER-PROVIDED COMMUTER ASSISTANCE SERVICES

The SOC survey also included questions on commute assistance services and benefits that employer might provide to employees. Respondents were asked about two types of services:

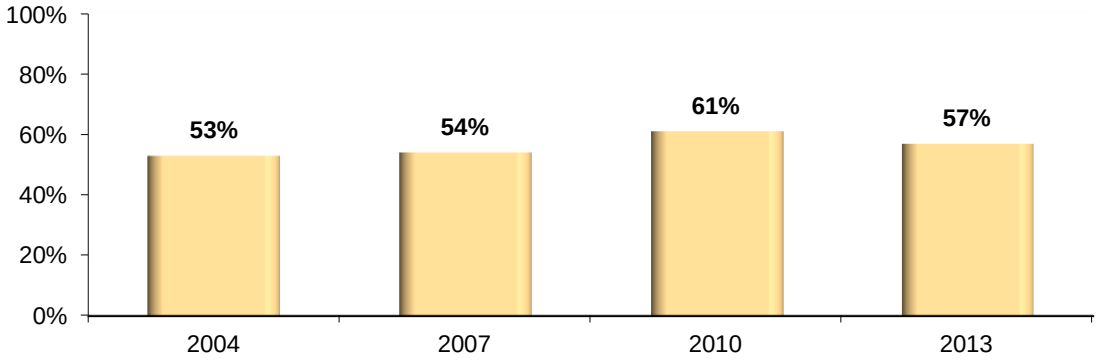
- Alternative mode incentives and support services
- Parking facilities and services

This section presents results regarding respondents' availability and use of these services in 2010. Results also are presented for some questions from the 2010, 2007, and 2004 SOC surveys.

Incentives/Support Services

Slightly less than six in ten (57%) respondents said their employer offer one or more incentives or support services (Figure 67). This is higher than the percentages of respondents who reported access to these services in 2007 (54%) and 2004 (53%). But it represents a slight drop from the 2010 result, suggesting some employers have cut back the services they offer to employers, possibly due to recessionary cost-cutting.

Figure 67
Employer Offers any Incentive/Support Services – 2004, 2007, 2010, 2013
(2004 n = 6,866, 2007 n = 6,071, 2010 n = 5,899, 2013 n = 5,524)



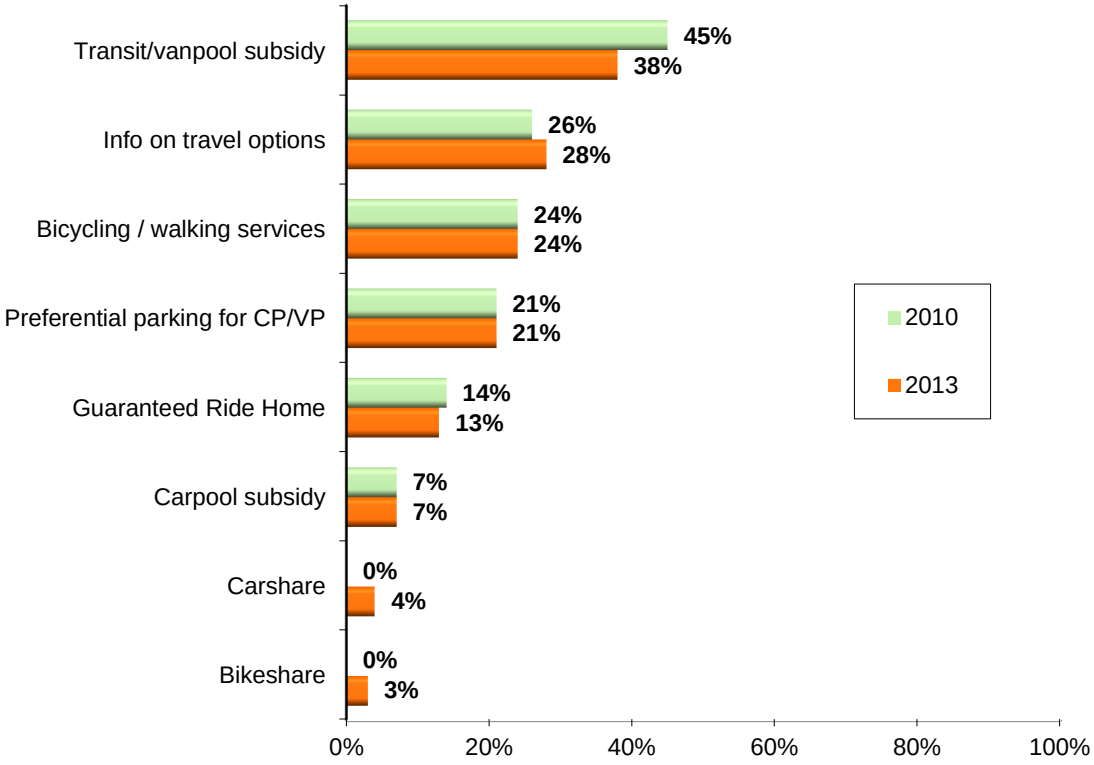
Individual Incentives / Support Services Offered

The percentages for individual commute services offered are shown in Figure 68. A third (33%) of respondents said their employers offer one or two of these services, 24% said their employers offer three or more of the services.

The most commonly offered services are SmarTrip/other subsidies for transit/vanpool, available to 38% of respondents, and information on commuter transportation options, available to 28% of respondents. Nearly a quarter (24%) of respondents said their employer offers services for bikers and walkers and 21% said their employers offer preferential parking. Thirteen percent said their employers offer GRH. Carpool subsidies are available to about seven percent of employees. Two new services, carshare membership and bikeshare membership, were added to the prompted list in 2013; these services were noted as available by four percent and three percent of respondents, respectively/

As shown in the figure, availability of most services is about the same in 2013 as in 2010. But access to transit/vanpool subsidies fell between 2010 and 2013. As this service represents the largest cost commitment for most employer commute programs, it reinforces the conclusion that employers that stop offering commute assistance services could be doing so to reduce costs.

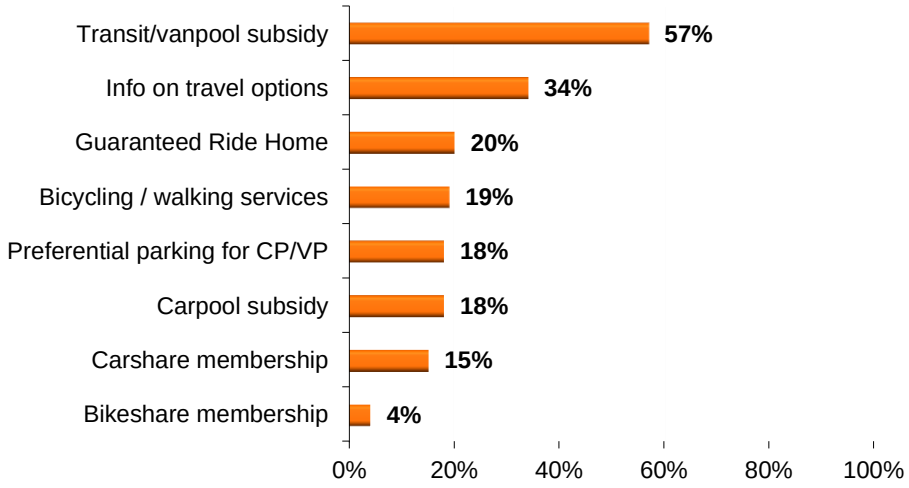
Figure 68
Alternative Mode Incentives and Support Services Offered by Employers – 2010 and 2013
(2010 n = 5,899, 2013 n = 5,524)



Respondents whose employers offered incentives/support services were asked if they have ever used these services. Overall, 54% of respondents who said commute services are available have used a service. This percentage represents 31% of all workers who are not self-employed.

The most commonly used incentives/support services are transit / vanpool subsidies, used by 57% of respondents whose employers offered this service, and commute information, used by 34% of respondents who report that the service is available (Figure 69). About two in ten respondents whose employers offer Guaranteed Ride Home (20%), bicycling or walking services (19%), preferential parking (18%), and carpool subsidies (18%) have used them.

Figure 69
Use of Employer-Provided Incentives/Support Services
Of Employees Who have Access to Services
(Transit/vanpool subsidy n = 2,041, Information on travel options n = 1,519, GRH n = 670, Bicycling / walking services n = 1,333, Preferential parking n = 1,124, Carpool subsidy n = 336)



Incentives / Support Services Offered by Employer Type

Respondents who work for federal agencies are most likely to have incentives/ support services available at their worksites; 88% of federal workers said they have at least one of these services, compared with 63% of respondents who work for non-profit organizations. Respondents who work for private employers and state / local agencies are least likely to have incentives/support services; fewer than half of respondents who work for these types of employees have access to commuter benefit services.

Table 37 compares the percentages of employers that offer various incentives/support services by employer type. Not surprisingly, Federal agency workers also have greater access than other respondents to individual incentive/support service. This is especially true for transit/vanpool subsidies 83% of Federal workers said these subsidies are offered, while only 45% of non-profit workers and about one-quarter of respondents who work for private firms and state/local agencies have this benefit. Commute information, preferential parking, and carpool subsidies also are disproportionately available to Federal agency workers.

Table 37
Commuter Services/Benefits Offered
by Employer Type

Incentives/Support Services	Percentage of Employers Offering Services			
	Federal (n = 1,402)	**State/local** (n = 760)	**Non-profit** (n = 601)	**Private** (n = 2,384)
Any services offered	**88%**	**46%**	**63%**	**44%**
SmartBenefit/transit/VP subsidy	83%	25%	45%	23%
Commute information	60%	25%	27%	18%
Preferential parking	54%	14%	14%	12%
GRH	23%	9%	13%	13%
Carpool subsidy / cash payment	21%	3%	4%	4%
Bike/walk services	52%	24%	30%	17%
Carshare (Zipcar, car2go)	7%	4%	5%	3%
Capital Bikeshare	8%	4%	5%	1%

Commuter Services Offered by Employer Size

Large employers are more likely to offer commuter services than are small employers. As indicated by Table 38, only 37% of respondents who work for employers with 100 or fewer employees and 55% of respondents who work for employers with 101-250 employees said they have any services. By contrast, more than seven in ten (74%) respondents employed by large (251-999 employees) employers and more than eight in ten (84%) respondents who work for very large firms (1,000+ employees) have one or more employer-provided commuter service.

Table 38 also compares availability of specific commuter assistance services by employer size. Respondents who work for employers with 251 or more employees have substantially greater access to most incentive/support services, compared with employees of smaller firms. This trend of increasing services with increasing size is most striking with transit/vanpool subsidies, commute information, preferential parking, and bicycle / walking services.

Table 38
Commuter Services/Benefits Offered
by Employer Size (number of employees)

Incentives/Support Services	Percentage of Employers Offering Services			
	1-100 (n = 2,406)	**101-250** (n = 653)	**251-999** (n = 799)	**1,000+** (n = 1,347)
Any services offered	**37%**	**55%**	**74%**	**84%**
SmartBenefit/transit/VP subsidy	21%	35%	55%	72%
Commute information	12%	27%	41%	59%
Preferential parking	7%	15%	28%	52%
GRH	10%	17%	14%	21%
Carpool subsidy / cash payment	4%	5%	8%	17%
Bike/walk services	14%	25%	37%	50%
Carshare (Zipcar, car2go)	3%	2%	5%	7%
Capital Bikeshare	1%	2%	5%	9%

Services Offered by Employer Location

Finally, the analysis examined availability of services by respondents' work locations, divided into the three "ring" designations described earlier: Inner Core (Alexandria, Arlington, and the District of Columbia), Middle Ring (Fairfax, Montgomery, and Prince George's), and Outer Ring (Calvert, Charles, Frederick, Loudoun, and Prince William). As shown in Table 39, Inner Core respondents have greater access to incentive / support services than do other respondents. Three-quarters of Inner Core workers said they have commute services, while only half of Middle Ring workers and 36% of Outer Ring workers have access to these services.

Inner Core workers also have greater access to each individual service; six in ten of these respondents are offered transit subsidies, compared to about one-quarter of respondents who work in the Middle Ring, and only 14% of respondents who work in the Outer Ring. Inner Core workers have somewhat higher access to other commute services also. These differences are less dramatic, but there is a clear pattern of highest availability in the Inner Core, moderate availability in the Middle Ring, and significantly lower availability of most services in the Outer Ring.

Table 39
Commuter Services Offered
by Employer Location

Incentives/Support Services	Percentage of Employers Offering Service		
	Inner Core (n = 2,375)	Middle Ring (n = 1,814)	Outer Ring (n = 1,316)
Any services offered	**73%**	**47%**	**36%**
Metrochek/transit subsidy	62%	27%	14%
Commute information	38%	28%	17%
Preferential parking	27%	21%	15%
GRH	17%	13%	12%
Carpool subsidy / cash payment	9%	7%	5%
Bike/walk services	38%	21%	14%
Carshare (Zipcar, car2go)	6%	3%	2%
Capital Bikeshare	7%	2%	1%

Parking Facilities and Services

Respondents also were asked about the parking services available at their worksites. These results are displayed in Table 40 for 2013, 2010, 2007, and 2004.

Table 40
Parking Facilities / Services Offered by Employers – 2013, 2010, 2007, 2004

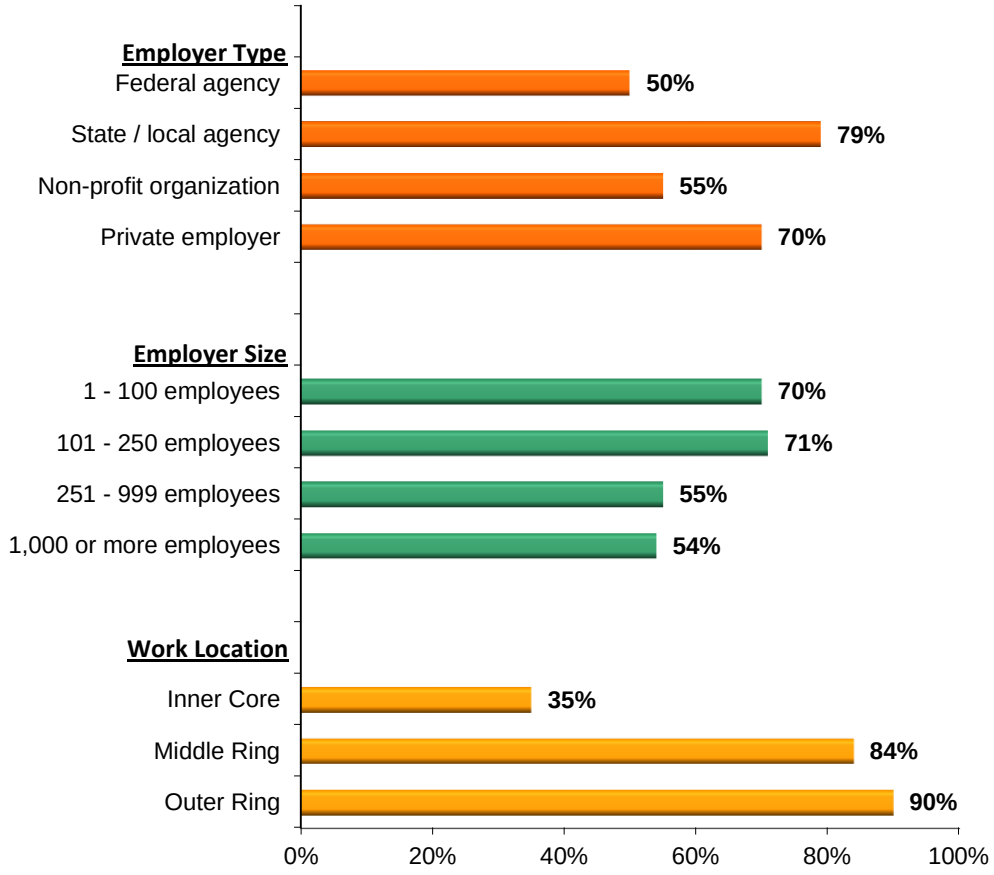
Parking Facilities and Services	2013 SOC (n = 5,524)	2010 SOC (n = 5,819)	2007 SOC (n =5,426)	2004 SOC (n = 6,866)
Free on-site parking	63%	63%	65%	66%
Free off-site parking	2%	2%	4%	3%
Employee pays all parking charges	23%	22%	21%	21%
Employee and employer share parking charge	7%	7%	7%	6%
Parking discounts for CP/VP*	14%	16%	15%	14%

* Note that percentages of parking discounts for CP/VP are calculated on a base of respondents who do not have free parking available. These sample sizes are (2013 n = 1,438, 2010 n = 1,610; 2007 n = 1,674; 2004 n = 1,752)

The majority of respondents (63%) across the region said their employers provide “free parking” at the worksite. An additional two percent said they have access to “free parking off-site.” About three in ten said they pay at least part of the cost of parking; 22% pay the total cost and seven percent pay a portion of the cost with the balance paid by their employers. Since 2004, the availability of free parking has dropped slightly, from 66% of regional

commuters to 63%. Figure 70 displays free parking availability by employer type, employer size, and the location of the respondents' worksite.

Figure 70
On-site Free Parking Availability
by Employer Type, Employer Size, and Work Area
Employer Type – Federal n = 1,402, State/local n = 760, Non-profit n = 601, Private n = 2,384)
Employer Size – 1-100 n = 2,406, 101-250 n = 648, 251-999 n = 795, 1,000+ n = 1,345)
Inner Core n = 2,375, Middle Ring n = 1,814, Outer Ring n = 1,316)



Parking by Employer Type – Federal agency workers and respondents who work for non-profit organizations are least likely to have free parking at work. About 51% of respondents who work for Federal agencies and 55% of respondents who work for a non-profit said their employers provide free parking. Other workers in these two groups either have no parking at all or have to pay all or part of the cost of parking. By contrast, 80% of respondents who work for state and local agencies and 71% of respondents who work for private employers said they have free parking.

Parking by Employer Size – Figure 70 also shows parking availability by employer size. Respondents who work for large employers are less likely to have free parking. About half (55%) respondents who are employed by employers with 251 or more employees have free parking, compared with seven in ten respondents who work for employers with 250 or fewer employees.

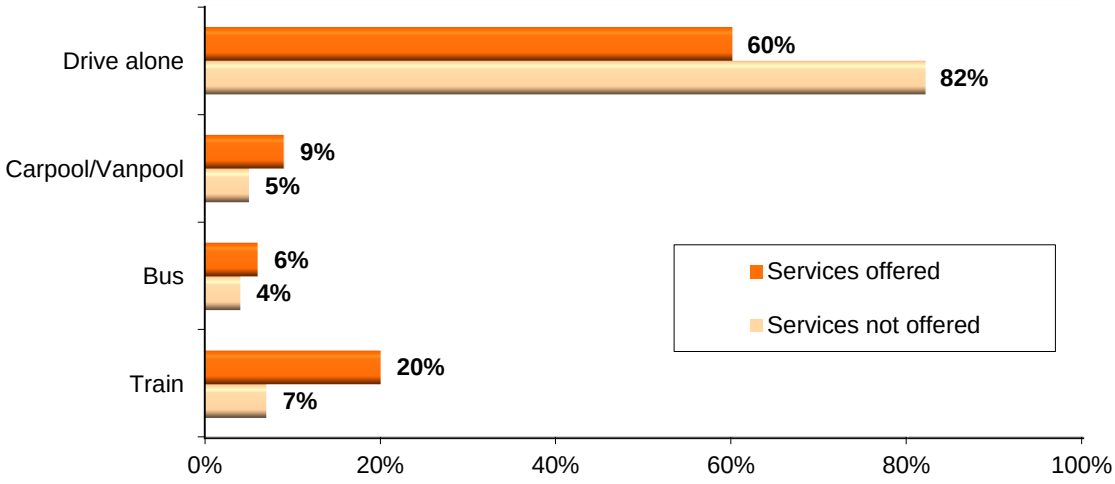
Parking Services by Work Location – Dramatic differences between respondents who work in different parts of the region also are evident for parking availability. As can be seen in Figure 70, only a third (36%) of respondents employed in the Inner Core area said they have free parking on-site or off-site, compared to more than eight in ten (85%) respondents who work in the Middle Ring and nine in ten (91) of respondents who work in the Outer Ring.

Use and Impact of Commuter Assistance Services/Benefits

Commute Mode by Commuter Assistance Services/Benefits Offered

Figure 71 presents the percentages of respondents who use various commute modes by whether or not their employer provides commuter assistance services or benefits. As the figure clearly illustrates, respondents whose employers provide alternative mode incentives and support services are less likely to drive alone (60%) than are respondents whose employers do not provide these services (82%). Respondents who have these services at their worksites use all alternative modes at higher rates than do respondents who do not have these services. Train use is particularly higher; 20% of respondents whose employers offer incentives/support services ride the train to work, compared with seven percent of respondents whose employers do not offer these services.

Figure 71
Primary Commute Mode
by Commuter Services/Benefits Reported Offered
(Services offered n = 3,080, Services not offered, n = 2,426)



These differences are significant at the 95% confidence level, but it is not possible to say that the availability of these services is the only reason, or even the primary reason, for the differences in mode use. As noted before, employers in the Inner Core are much more likely than are employers in the Middle Ring and Outer Ring to offer commuter assistance services and drive alone rates are much lower for respondents who work in the Core (47%) than for respondents who work in either the Middle Ring (79%) or Outer Ring (83%).

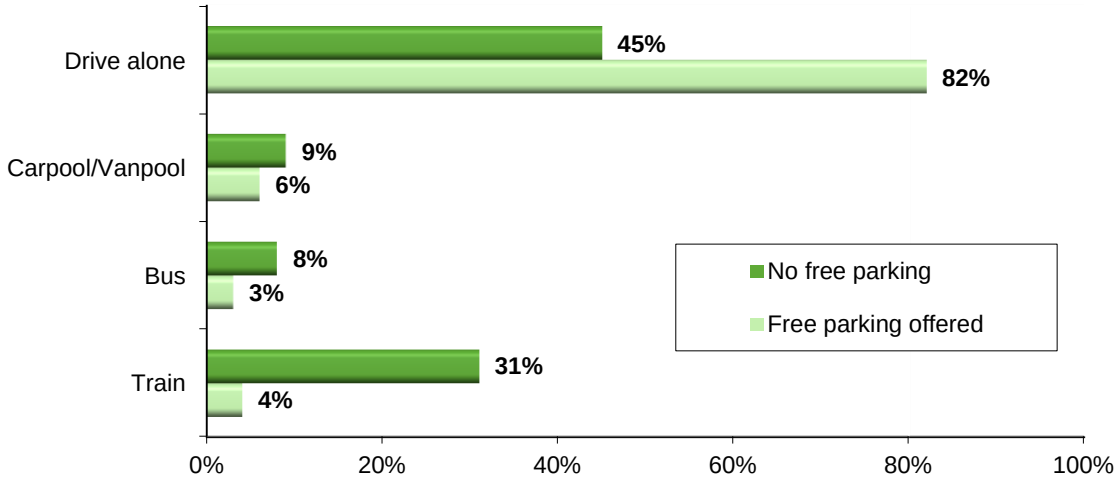
But respondents who work in the Inner Core also could be faced with greater impediments to driving alone. For example, respondents who work in the Inner Core travel an average of 41 minutes to work, compared with 33 minutes for Middle Ring workers and 31 minutes for Outer Ring workers. And respondents who work in the Inner Core also might experience greater congestion levels and have greater availability of commute options, such as

transit, than would be experienced by workers outside this area. Any of these factors might have been at least as important in influencing respondents' commute mode choices.

Commute Mode by Parking Services Offered

Figure 72 presents a comparison of mode use rates for respondents who have free on-site parking at work and those who either have to pay for parking or who have no parking at all. The difference in drive alone rates for these two groups is dramatic; 82% of respondents who have free parking drive alone, compared with only 45% of respondents who do not have this benefit. Respondents who have to pay for parking use all alternative modes at higher rates than do respondents who have free parking. The difference is especially striking for use of train; train mode share is more than six times as high for respondents who have to pay to park as for respondents who have free parking. Many other surveys and research studies have documented the important role parking availability and cost play in commute decisions. But as was noted above, many factors influence commuters' mode choice.

Figure 72
Primary Commute Mode
by Free Parking Available at Work
(Free parking offered n = 3,621, Free parking not offered, n = 1,772)



SECTION 4 – SUMMARY AND CONCLUSIONS

This section of the report summarizes the highlights of the results presented in Section 3 and presents major conclusions from the analysis of the survey.

One objective of the SOC survey was to document trends in regional commute behavior, awareness, and attitudes. Thus, the results of this 2013 survey are compared against past results as measured in the 2010, 2007, 2004, and 2001 SOC surveys, the four previously conducted regional commute surveys.

A second objective of the SOC survey was to collect data to support the upcoming TERM evaluation, scheduled for spring 2014. Additional analysis of SOC data is underway for this purpose and results will be presented in a TERM evaluation report to be produced in June 2014.

Following is a summary of the key results from the SOC survey for the following topics:

- Commute patterns
- Telework
- Awareness and attitudes toward transportation options
- Awareness of commute advertising
- Awareness of commute assistance resources
- Commuter assistance services provided by employers

Commute Patterns

The share of commute trips made by telework continues to rise, but the share of trips made by transit fell slightly between 2010 and 2013.

- Drive alone continued to be the most popular commute mode in the Washington metropolitan region, but the share of weekly commute trips made to worksites outside the home (excluding telework) declined from 71.0% in 2001 to 65.8% in 2013. This represents a drop of nearly five percentage points over the twelve year period.
- Weekly trips made by transit modes declined from 2010 to 2013, but the 2013 transit share of 17.3% has been maintained since 2001. The shares of weekly commute trips made by carpool/vanpool and bike/walk remained essentially constant.
- Almost three in ten (27%) regional commuters use an alternative mode (carpool, vanpool, bus, Metrorail, commuter rail, bicycle, or walk) as their primary mode, that is, the mode they used most days in a typical week. An additional four percent of commuters used an alternative mode one or two days per week, resulting in more than three in ten regional commuters using a non-drive alone mode at least once per week.
- The most popular alternative mode is train, which is used by about 13% of respondents as their primary mode. An additional one percent of commuters use the train one or two days per week.
- Bus is the primary commute mode for about five percent of respondents. An additional one percent of respondents occasionally ride the bus to work.
- Carpooling/vanpooling is used by about seven percent of commuters most days during the week and one percent use these modes one or two days per week. The majority of carpoolers use a “traditional” form of carpooling, with the same partner(s) all the time. Less than one in ten carpoolers/vanpool trips is made by “casual” carpooled (slug).

Many commuters are long-time users of their mode, but commuters continue to shift among modes.

- On average, commuters who drive alone to work have used this mode an average of 10.6 years and only 22% of drive alone commuters started using this mode within the past three years. By contrast, 34% of bus riders, 39% of bike/walk commuters, and 46% of carpoolers started using these modes within the past three years.
- Among commuters who started using a new alternative mode within the past three years, about half shifted from driving alone and half shifted from another alternative mode.

A sizeable portion of commuters who use alternative modes drive alone part of the trip.

- Nearly three in ten (29%) respondents who used an alternative mode drive alone to the alternative mode meeting spot (park & ride lot, train station, carpool driver's home, etc.) and leave their cars at those places. Respondents travel an average of 2.9 miles to these meeting points. A third (34%) of respondents walk to the meeting point and the remaining respondents who use an alternative mode ride transit, are dropped off, or are picked up at home by a carpool partners.

Commute distances fell slightly, but the commute time has remained the same since 2004.

- The 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 the 35 minutes measured in 2007 and just two minutes longer than the 34 minutes observed in 2004

Telework

The percentage of workers who telework continued to grow between 2010 and 2013, continuing a steady upward trend observed since 2001. But even with this growth, potential exists for additional teleworking.

- More than a quarter (27%) of regional commuters said they telework at least occasionally. "Commuters" are defined as workers who are not self-employed and would otherwise travel to a worksite outside their homes if not teleworking. These teleworkers represent 675,000 regional workers.
- The percentage of regional telework has more than doubled since 2001 and telework incidence grew in nearly every demographic and occupational segment in which telework is feasible.
- The average frequency of teleworking also has grown since 2010, from 1.3 days per week on average, to 1.4 days per week.
- The 2013 survey showed that an additional 18% of commuters do not telework today, but "could and would" telework if given the opportunity. These respondents said their job responsibilities would allow them to telework and they would like to telework. About two-thirds of these interested respondents said they would like to telework "occasionally," while one-third would like to telework "regularly." These potential teleworkers total 470,000 regional workers.
- Telework continues to be concentrated in certain demographic and employment groups, but the percentage of all regional commuters who said their jobs are incompatible with telework dropped, from 65% in 2004 to 44% in 2013. Because it seems unlikely that the composition of jobs changed substantially in the region, these results suggest a shift in commuters' perception of their ability to perform work away from their primary work location. This could be related to increasing availability of communication and computer technology or perhaps from a broader definition of what work responsibilities are "telework-compatible."

The percentage of teleworkers who work under "formal" telework arrangements now exceeds the percentage who telework under informal arrangements with supervisors.

- About 30% of all respondents (both teleworkers and non-teleworkers) said their employer has a formal telework program and 21% said telework is permitted under informal arrangements between a supervisor and employee. Formal programs are most common at Federal agencies and among respondents who work for employers with more than 1,000 employees.
- Among current teleworkers, 58% of telework under a formal arrangement. This represents a shift from 2007, when only 39% of teleworkers have a formal agreement and an even greater shift from 2004, when formal programs comprised only 32% of all telework. This appears to signal a greater acceptance of formal telework.

Teleworkers get information on telework from a variety of sources.

- The largest source of telework information, by far, is "special program at work/employer," named by 73% of respondents. This percentage is statistically the same as the 2010 percentage (71%), but considerably higher than the percentage reported in the 2007 survey, in which only 55% of teleworkers cited their employer as the source of information.
- Ten percent of teleworkers said they received telework information directly from Commuter Connections or MWCOG. This is an increase from the percentages who mentioned Commuter Connections/MWCOG in each of the previous four SOC surveys: 2010 (6%), 2007 (7%), 2004 (5%), and 2001 (4%).

Awareness and Attitudes Toward Transportation Options

Most respondents report access to some transit service in their home area.

- Respondents were asked if bus and/or train service operated in the area where they live and where they work. More than eight in ten (83%) said that some transit service serves their home area. A similar percentage (84%) said service operates in the area where they work.
- Half (50%) of all respondents said they live less than ½ mile from a bus stop and 65% said they live less than one mile away. Train station access is less convenient; only 17% live less than one mile from a train station. The average distances are 1.6 miles to the nearest bus stop and 7.1 miles to the nearest train station. Respondents who live in the Inner Core jurisdictions of the District of Columbia, Alexandria, and Arlington said the closest bus stop is an average of 0.4 miles away and a train station is 1.9 miles away on average. Eighty-four percent of commuters in this area live less than ½ mile from a bus stop.

Three in ten respondents have access to HOV / express lanes for their commutes and HOV availability influences mode choice.

- Three in ten (29%) respondents said there is an HOV / express lane along their route to work. A third (34%) of these commuters said they use the lanes. This equates to about nine percent of commuters region-wide, essentially the same percentages as reported HOV availability and HOV use in 2010 and 2007.
- More than half (54%) of the respondents who used the lanes for commuting said availability of the HOV / express lane influenced their decision to carpool, vanpool, or ride transit for their commute. This is borne out by a comparison of rideshare mode use with and without HOV. The carpool/vanpool mode share is 11% for commuters who have access to an HOV / express lane for commuting, compared with five percent carpool/vanpool use for commuters who do not have access.
- Respondents who use the HOV / express lane for commuting estimate that they save an average of 24 minutes for each one-way trip on the days they use the lanes. But HOV / express lane users who live in the outer jurisdictions of the region save an average of 29 minutes one-way. They also are more likely to say the

HOV lane influenced their mode choice. Nearly five in ten (48%) of Middle Ring respondents (Fairfax, Montgomery, Prince George's) and 59% of Outer Ring respondents (Calvert, Charles, Frederick, Loudoun, and Prince William) who use HOV / express lanes said the availability of the lanes influenced their commute mode choice.

Commuters appear to be getting somewhat more difficult, but commuters are making changes to improve their commutes.

- About a quarter (23%) of respondents said their commute is more difficult than it was a year ago, but 17% of respondents said their commute is easier than last year.
- Commuters who travel more than 20 minutes to work are particularly likely to repot a more difficult commute than last year.

Respondents considered commuting factors when making job or home change decisions.

- About 17% of respondents said they made a job or home change in the past year. One-quarter of these respondents said they considered a commuting factor, such as the ease or cost of commuting to the new location, when making their location decision and nearly three in ten (28%) said commute ease was more important than other factors in the decision.
- Four groups of respondents are more likely than are others to cite commute factors as important to their decision: 1) respondents who live in a Middle Ring jurisdiction, 2) respondents who work in a Middle Ring jurisdiction, 3) respondents who moved from another location in the Washington region, and 4) respondents who are between 25 and 34 years old. Presumably, these groups expected to encounter a more difficult commute with their move or wanted to improve their commute through the move.

Six in ten commuters are satisfied with their current commute, but not all commuters are equally satisfied. Commuters are less satisfied overall, with regional transportation services.

- Six in ten (64%) commuters rated their commute satisfaction as a "4" or "5" on a 5-point scale, where "5" meant "very satisfied. But 16% rated their satisfaction as either a "1 – not at all satisfied" or "2."
- Respondents' commute satisfaction is influenced by the ease of the commute. Three quarters (76%) of respondents who said they have an easier commute than last year and 72% who said their commute has not changed are satisfied with their commute, compared to only 34% who said their commute has become more difficult.
- Commute satisfaction also differed by where the respondent lived and work. Respondents who live in the Inner Core are notably more satisfied with their commute (73% satisfied) than are respondents who live in the Middle Ring (63%) or Outer Ring (57%). But respondents who work in the Outer Ring (70%) are more satisfied than are respondents who work in the Inner Core (65%) and Middle Ring (60%).
- Commute satisfaction declines dramatically as commute length increases. More than nine in ten commuters who have very short commutes – 10 minutes or less – give a 4 or 5 rating for satisfaction. When the commute is between 21 to 30 minutes, satisfaction drops to 68%. Only 51% of commuters who travel 31 to 46 minutes are satisfied and when travel time exceeds 60 minutes, only 35% rate their commute a 4 or 5.
- Commuters generally are less satisfied with transportation in the region than they are with their particular commute. Only 44% said they are satisfied (rating of 4 or 5 on a 5-point scale) and 25% said they are not satisfied. Commuters appear, however, to be slightly more satisfied than they were in 2010; in the 2010 SOC, only 40% of regional commuters rated their transportation satisfaction as a 4 or 5.

Commuters recognize both personal and societal benefits of ridesharing.

- When asked what personal benefits users of alternative modes receive from using alternative modes, 81% or respondents named at least one benefit. Nearly six in ten (59%) respondents said that use of alternative modes could reduce traffic congestion.
- Respondents noted three benefits related to environmental concerns. Four in ten (39%) said commuters who use alternative modes help the environment, indicating recognition that use of alternative modes has an impact of environmental quality. Fifteen percent reported saving energy as a benefit and eight percent noted reducing greenhouse gases, benefits related to sustainability.
- When respondents who use alternative modes for their commute were asked what personal benefits they receive from using these modes, 90% named at least one benefit. Saving money or gas topped the list of personal benefit; 39% of alternative mode users mentioned this benefit. Respondents also cited benefits that have a connection to quality of life. One-quarter of respondents said they avoid stress/share driving/avoid traffic. And 17% said using an alternative mode enables them to use their travel time productively. About one in ten said they arrive on time (11%) or get exercise or health benefits (10%).
- Nearly four in ten commuters who carpool, vanpool, or ride transit to work said they perform work-related tasks during the commute; 28% perform work-related tasks "most days" and 12% perform work-related tasks "some days." Conducting work-related business during the commute is most common among transit riders; 47% of train riders and 41% of bus riders said they perform work-related tasks during their commute.

Awareness of Commute Advertising

Awareness of commute information advertising remained high.

- More than half (55%) of all respondents said they had seen, heard, or read advertising for commuting in the six months prior to the survey and 67% of these respondents could cite a specific advertising message. Both the general recall and specific message recall are approximately the same as was observed in the 2010 survey (58% general recall and 70% message recall).
- Almost half (47%) of respondents who had heard ads could name the sponsor. WMATA was named by 17% as the advertising sponsor. Commuter Connections was named by 12%, about the same percentage as named Commuter Connections in 2010 (13%).

Commute advertising appears to influence commuters' consideration of travel options.

- Almost a quarter (25%) of respondents who saw or heard advertising said they are more likely to consider ridesharing or public transportation after seeing or hearing the advertising. This is essentially the same rate as was noted in the 2010 SOC (24%), but higher than the 18% who noted this willingness in 2007.
- Respondents who are using alternative modes are more likely to be influenced by the advertising. More than four in ten bus riders, 25% of train riders, and 34% of bike/walk commuters said they were likely to consider alternative modes after hearing the ads, compared with 22% of commuters who drive alone and the same share of carpooolers/vanpoolers.
- About nine percent of respondents who could recall an advertising message said they took some action after hearing the ad to try to change their commute. About a quarter of these commuters tried or started using a new alternatie mode. While these respondents equal only about one percent of the total commuter population, they represent more than 20,000 commuters. Half (53%) of the respondents who started using a new alternative mode drove alone before making the switch. The other half had been using a different alternative mode.

Awareness of Commute Assistance Resources

Awareness of commuter information and assistance resources has grown dramatically since 2001.

- Six in ten (62%) respondents said they knew of a telephone number or web site they could use to obtain commute information. Awareness of regional commute information resources fell slightly between 2010 and 2013, but the current level of 62% awareness is still substantially higher than the rates in 2001 (33%), 2004 (46%), and 2007 (51%).
- About 25% of respondents could name a specific number or web site; 15% named a Metro/WMATA phone number or website and one percent mentioned Metro/WMATA, but did not specify the number or website. Three percent named a phone number or website administered by Commuter Connections.

Awareness of Commuter Connections continues to be high.

- In 2013, 62% of all regional commuters said they have heard of an organization in the Washington region called Commuter Connections. This is just slightly lower than the 64% rate in 2010, but still considerably higher than the 53% who knew of Commuters Connections in 2007.
- Respondents who know of Commuter Connections also were asked if they contacted the program or visited a Commuter Connections or MWCOG website in the past year. Ten percent of respondents who knew of Commuter Connections had contacted the program, representing about six percent of all employed residents of the region.

Nearly four in ten commuters region-wide express interest in an "instant carpooling" service to facilitate ridematching for a single trip on short notice.

- More than a third of commuters said they would be expressed interest in using the service as a driver; nine percent said they would be "very likely" to use the service and 25% said they would be "somewhat likely" to use it. Commuters are slightly more interested in using the service as a passenger; 12% are "very likely" and 25% are somewhat likely" to use it.
- Respondents who live in the Middle Ring and Outer Ring areas of the region express greater interest in the service, The lower interest among Inner Core respondents could reflect their greater overall access to transportation services; they might feel they don't need the service, given the wide range of instant transportation options (transit, bikeshare, carshare, taxi) that are readily available to them.

Most local jurisdiction services are known to at least a quarter of their target populations.

- Respondents were asked about local commute assistance services provided in the counties where they live and work. Awareness of these programs ranges from 11% to 56% of respondents who were asked the questions. Five of the nine programs examined are known to at least a third of their target area respondents.
- Use of the services ranged from one percent to 18% of the target audience. Use is generally higher for programs in outer jurisdictions and for programs associated with transit agencies or with a strong transit component. The relationship to the location in region is likely because outer jurisdiction commuters encounter more congestion in their travel and have longer commute times and distances, which could encourage them to seek options for travel to work.

Commuter Assistance Services Provided by Employers

Availability of worksite commute assistance services has fallen slightly since 2010.

- Fifty-seven percent ofespondents said their employers offer one or more alternative mode incentives or support services to employees at their worksites. This represents a slight drop from the 61% noted in the 2010 survey, suggesting some employers might have eliminated services they offered to employers, possibly due to recessionary cost-cutting. But the overall percentage remains above the 54% rate observed in the 2007 SOC survey.
- The most commonly offered services are SmarTrip/other subsidies for transit/vanpool, available to 38% of respondents, and information on commuter transportation options, available to 28% of respondents. Nearly a quarter (24%) of respondents said their employer offers services for bikers and walkers and 21% said their employers offer preferential parking.
- Respondents who work for federal agencies are most likely to have incentive/support services available (88%), compared with 44% to 64% of respondents who work for other types of employers. Respondents who work for large firms reported greater access to incentive/support services than did respondents who work for small firms. And incentives and support services are far more common among respondents who work in the Inner Core jurisictions (Alexandria, Arlington, and District of Columbia); 73% of these respondents have access to services compared to 47% who work in the Middle Ring (Fairfax, Montgomery, and Prince George's Counties) and 36% of those in Outer Ring jurisdictions.
- Commute information and Metrochek/transit/vanpool subsidies are the most widely used commuter assistance services, used, respectively, by 57% and 34% of respondents who have access to these incentives.

Most commuters continue to have free worksite parking.

- The majority of respondents (63%) said their employers offered free, on-site of off-site parking, about the same percentage as that resported in 2010 (63%), 2007 (65%), and 2004 (66%).
- Respondents who work for federal agencies and those who work for non-profit organizations are least likely to have free parking; only half of these respondents said they have free parking, compared with 70% who work for private firms and 79% who work for state/local governments. Free parking also is much less common in the Inner Core area of the region. Only a third of respondents who work in these areas have free parking, compared with 84% of respondents who work in the Middle Ring and 90% of respondents who work in the Outer Ring.

Worksite commuter assistance services appear to encourage use of alternative modes.

- Driving alone is less common for respondents who have access to incentive/support services. Only 60% of respondents with these services drive alone to work, compared with 82% of respondents whose employers did not provide these services.
- Respondents whose employers do not offer free parking also use alternative modes at much higher rates. Fewer than half (45%) of respondents who do not have free parking drive alone, compared with 82% of respondents who do have free parking.

APPENDICES

Appendix A – Survey Data Expansion

Appendix B – Final Dialing Disposition

Appendix C – Survey Questionnaire

Appendix D – Instructions and Definitions of Terms

Appendix E – Comparison of Key 2013 SOC Results with 2010, 2007, 2004 and 2001 SOC Results

APPENDIX A
SURVEY DATA WEIGHTING AND EXPANSION

The 2013 SOC Survey was conducted using an overlapping, dual frame sampling design, that is, a random sample was drawn from two separate sample groups – cellular phone respondents and landline phone respondents. Survey responses were adjusted for the overlap in the dual frame sampling and then, expanded numerically by expansion and weighting factors. The expansion and weighting factors were applied to each survey interview to align them with published, employment and ethnic information for each of the 11 study areas. The procedure for the dual frame sampling adjustment, expansion to employment, and weighting for ethnic distribution for the 11-area, Washington, DC, metropolitan region is described below in detail.

The dual frame sampling design was a change from the 2010 study, which surveyed only landline respondents. The change was necessary, however, because the proportion of "cell phone only" (CPO) households, that is, households that do not have a landline phone, has greatly increased in the past few years and now is estimated at 30% region-wide. Cell phone survey research has shown that CPO households have different demographics from those with landline phones – younger, higher share of non-White, and lower incomes - thus their travel patterns also could be different.

After the survey fieldwork was completed, the dataset was prepared for pre-weighting, a necessary step to account for the use of dual frame sampling. The pre-weight calculations equalize sample selection bias due to multiple telephone access and overlapping sample frames. The calculation for the pre-weighting step is described below. Figure A-1 shows the overlap of the two sample groups.

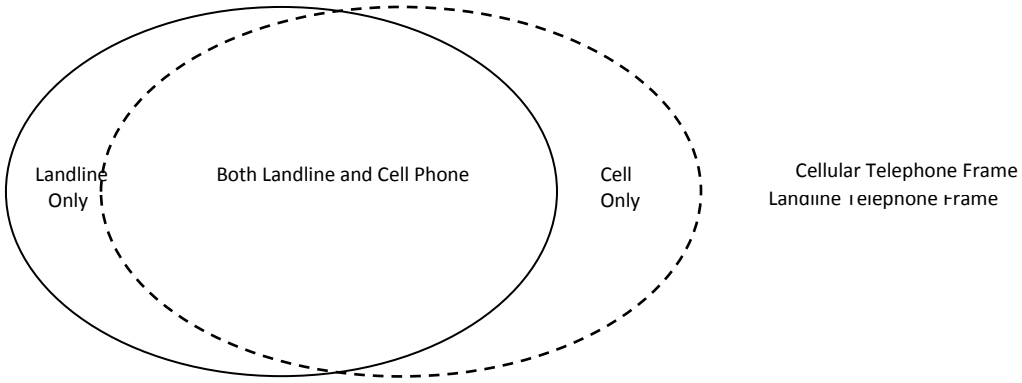


Figure A-1 - Overlapping Dual Frame Sample

A pre-weighting factor is calculated for both the landline and cell phone sample groups. The factor is comprised of two components. The first component adjusts for the ratio of individuals to phones. That is, for each sample group, a number is calculated to express the ratio between the number of adults to the number of phone lines. For cell phones, one adult is assumed to be the owner and only user of the cell phone, resulting in the first, pre-weight component equaling one. For landlines, multiple adults may use the same landline or landlines within the household, resulting in a first, pre-weight component equaling the calculated ratio.

The second component adjusts for the increase in the probability of selection for respondents who have both cell phones and landlines, since the sample groups are not mutually exclusive. This adjustment calculation uses the number of interviews within the overlap (interviews where the respondent indicates both landline and cell phone access), creating two adjustment proportions, where: $\boldsymbol{\lambda}^{l} + \boldsymbol{\lambda}^{c} = 1$.

The adjustment factor for landlines, λ^l, is calculated by taking the number of interviews made by landline within the overlap and dividing by the total number of interviews within the overlap. The adjustment factor for cell phones, λ^c, is calculated by taking the number of cell phone interviews within the overlap and dividing by the total number of interviews within the overlap. The formula for the two pre-weight calculations is shown below:

Landline Pre-weight Dual Frame Sample: $\frac{\text{\# Adults}}{\text{\# Landlines}} \times \lambda^l$

Cell Phone Pre-weight Dual Frame Sample: $\frac{\text{1 Adult}}{\text{1 Cell Phone}} \times \lambda^c$

After completing the initial dual frame sampling adjustment, the Bureau of Labor Statistics' Local Area Unemployment Statistics (LAUS) for January-March, 2013, was used to calculate the expansion factor needed. This timeframe was chosen to approximate the survey period. Dividing the BLS estimate by the number of interviews after the dual frame adjustment yields the expansion factor by jurisdiction. These factors were then applied to each survey response, allowing the survey results to be expanded to the employment total for each of the 11 areas. After the dual frame adjustment, the expansion methodology is the same as the method used for the 2007 and 2010 State of the Commute Surveys. Table A-1 shows the number of employed workers living in each of the 11 areas and the number of employed persons surveyed. These figures were used in computing the expansion factors applied to each survey response.

Table A-1 – Estimate of Workers by Survey Area and Expansion Factors

Survey Area	Estimated Employed Workers Totals from Bureau of Labor Statistics Local Area Unemployment Statistics (LAUS) Program (1st Qtr 2013)	Number of Working Persons Interviewed	Dual Frame Adjustment Factor	Initial Adjustment and Expansion Factors
Alexandria City, VA	86,907	575	753	115
Arlington Co., VA	131,217	576	772	170
Calvert Co., MD	45,071	577	868	52
Charles Co., MD	75,356	575	855	88
District of Columbia	338,466	577	735	460
Fairfax Co., VA	597,827	579	790	757
Frederick Co., MD	121,740	575	845	144
Loudoun Co., VA	180,598	575	839	215
Montgomery Co., MD	507,671	575	810	627
Prince George's Co., MD	434,642	576	847	513
Prince William Co., VA	219,548	575	855	257
Total	**2,739,042**	**6,335**		

Weight factors for ethnicity were applied to survey results where statistical differences were found when compared to the published U.S. Census Bureau's American Community Survey (ACS). The ACS is an on-going study which surveys populations throughout the United States, and thus includes the 11 study areas. Based on chi-squared calculations, eight areas were found to be significantly different, and three areas were not when compar-

ing the 2013 SOC ethnicity distribution to the ACS ethnicity distribution. The three areas where no statistical differences were found were Calvert, District of Columbia, and Frederick.

For the majority of jurisdictions, the 3-year, 2009-2011 ACS series was used, while for jurisdictions with lower overall populations, the 5-year 2007-2011 ACS series was substituted. A distribution of employment status by ethnicity found in the ACS "Table S2301" was applied to the SOC distribution for ethnicity, and tested using the chi-squared test. The ethnicity weighting factor was developed by calculating the ratio of the ACS ethnic distribution and the survey ethnic distribution. The ratio for the three areas without a need for a statistical adjustment remains at 1.00. This is shown in Table A-2 below.

Table A-2 – Ethnic Weighting Factors by Survey Area

Survey Area	Ethnic Weighting Factors*			
	Hispanic	Black	White	Other
Alexandria City, VA	2.25	1.79	0.73	2.30
Arlington Co., VA	1.86	1.15	0.83	1.96
Calvert Co., MD	1.00	1.00	1.00	1.00
Charles Co., MD	1.10	1.77	0.74	1.06
District of Columbia	1.00	1.00	1.00	1.00
Fairfax Co., VA	1.92	1.35	0.74	1.80
Frederick Co., MD	1.00	1.00	1.00	1.00
Loudoun Co., VA	2.51	1.00	0.83	1.51
Montgomery Co., MD	2.12	1.40	0.70	1.92
Prince George's Co., MD	2.15	1.00	0.58	1.97
Prince William Co., VA	1.68	1.26	0.77	1.41

*Rounded to the nearest two decimals.

The product of the BLS expansion factor and the ethnicity weighting factor generates the final expansion/weighting factor. Table A-3 shows the value for each of these factors by area.

The initial adjustment for the dual frame sampling selection and the expansion/weighting factors allow for the proper representation of workers in each geographical area when analyzing the survey results. For example, without the adjustment and the expansion/weighting factor, the final estimated 45,071 workers in Calvert County would have the same representation as the estimated 597,827 workers in Fairfax County. By using the expansion/weighting factors shown in the table above for each sub-area, the number of workers by type of telephone access and ethnicity has been adjusted so that each worker is equally represented within the region.

Table A-3 – Final Expansion/Weighting Factors by Ethnicity and Survey Area

Survey Area	Final Expansion/Weighting Factors*			
	Hispanic	Black	White	Other
Alexandria City, VA	259	207	84	266
Arlington Co., VA	316	196	142	334
Calvert Co., MD	52	52	52	52
Charles Co., MD	97	156	65	93
District of Columbia	460	460	460	460
Fairfax Co., VA	1454	1018	561	1364
Frederick Co., MD	144	144	144	144
Loudoun Co., VA	541	216	179	325
Montgomery Co., MD	1330	880	438	1202
Prince George's Co., MD	1106	513	298	1011
Prince William Co., VA	432	324	198	361

*Weighting factors used in these calculations are not rounded and therefore, when multiplying the rounded expansion factors (Table A-1) by the ethnic weighting factors (Table A-2), numbers will be slightly different to those using the rounded weighting factors.

Level Of Confidence For Analysis

The level of confidence for analysis of the region and the county/city sub-areas will differ because the sample sizes in each category differ. Table A-4 shows the level of confidence for each of these geographic divisions for the State of the Commute 2013 survey sample. In addition, the level of confidence has been calculated for several other non-geographic key sub-populations of interest in the study. Note that some questions were answered by smaller numbers of respondents, and therefore the confidence level for these questions will be lower.

Table A-4 – Level of Confidence for Analysis

Sub-Area or Sub-Population	Sample Size	Level of Confidence
Geographic Sub-Areas		
Study Region – Eleven Areas	6,335	95% ± 1.2%
Study Portion of Virginia	2,880	95% ± 1.8%
Study Portion of Maryland	2,878	95% ± 1.8%
District of Columbia	577	95% ± 4.1%
Individual County or City Level	575	95% ± 4.1%
Sub-Area or Sub-Population	**Sample Size**	**Level of Confidence**
Sub-Populations		
Telecommuters	1,575	95% ± 2.5%
Carpoolers (including casual)/Vanpoolers	424	95% ± 4.8%
Transit Users	1,055	95% ± 3.0%
Bike Users or Walkers	180	95% ± 7.3%
Commuters Aware of GRH	1,602	95% ± 2.4%

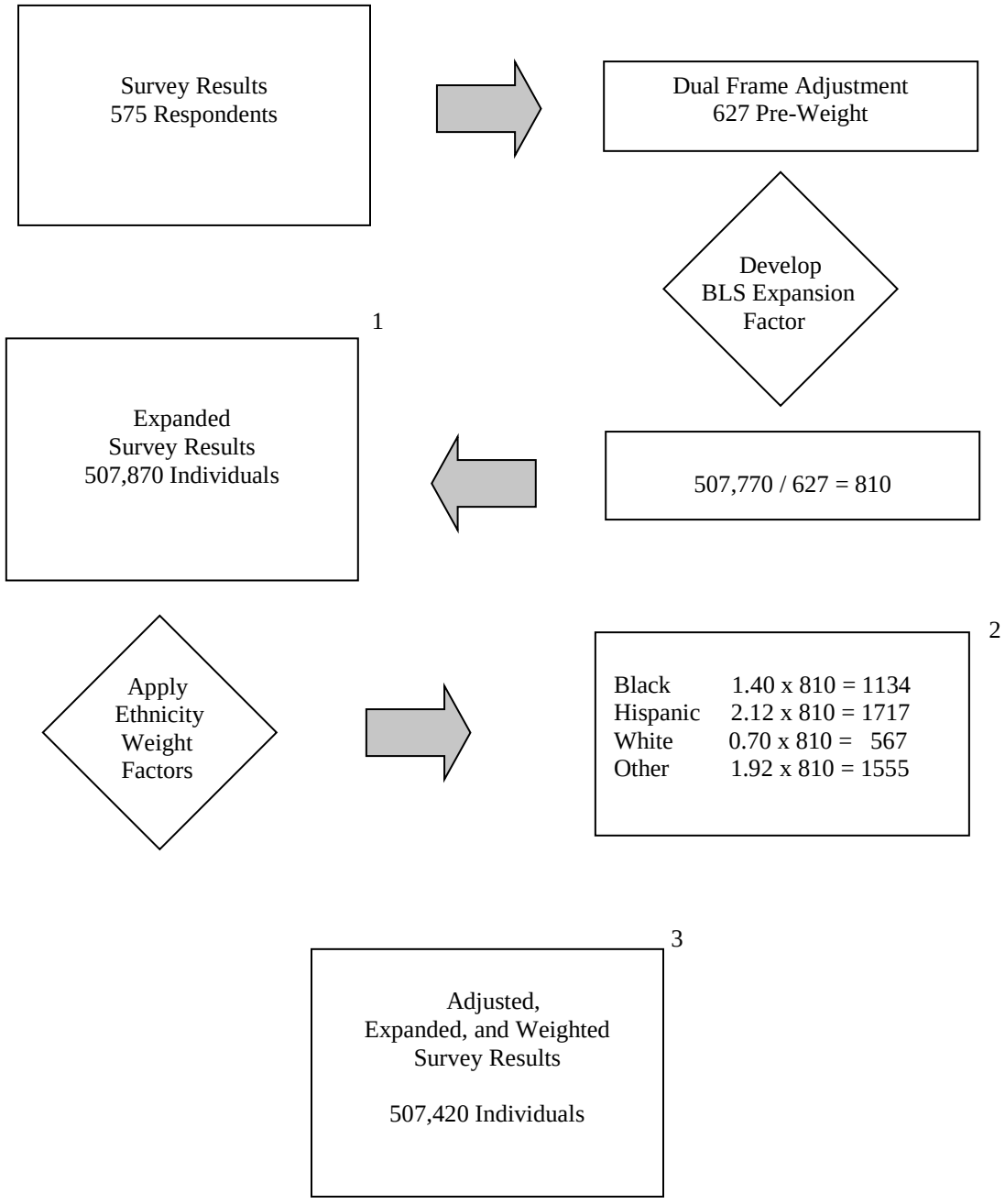
Summary

Survey responses from each of the 11 study areas within the Washington, DC, metropolitan region comprising the State of the Commute 2013 were expanded numerically by an expansion and weighting factor. Additionally, in 2013 an adjustment factor was applied to account for overlapping, dual frame sample. These factors were applied to survey results to ensure they aligned with published employment and ethnicity information for the study area.

Figure A-1. Figure of Weighting and Expansion for Working Households

Example: Montgomery County, MD

Objective: Apply the survey results (575 respondents) to the Bureau of Labor Statistics (507,770) with adjustments for ethnicity from the U.S. Census Bureau's American Community Survey to represent employed individuals by ethnicity living in Montgomery County (507,420).



Note: 1. 810 x 627 = 507,870 individuals.
2. Final expansion/weight factors estimates workers by ethnicity for Montgomery County.
3. Note: the difference from 507,870 individuals is due to rounding.

APPENDIX B
DIALING DISPOSITIONS

Figure B-1. Total Dialing Dispositions

Dialing Disposition	Landline Calls		Cell Phone Calls		Total	
	Count	Percent	Count	Percent	Count	Percent
Answering Machine	89,718	26.9%	12,168	42.6%	101,886	28.2%
No Answer	39,610	11.9%	2,768	9.7%	42,378	11.7%
Call Backs	7,832	2.4%	483	1.7%	8,315	2.3%
Busy	8,165	2.5%	1,150	4.0%	9,315	2.6%
Over quota	27	<0.1%	241	0.8%	268	<0.1%
Total Lives	**145,352**	**43.7%**	**16,810**	**58.8%**	**162,162**	**44.8%**
Not in service	127,059	38.1%	2,123	7.4%	129,182	35.7%
Business	9,275	2.8%	800	2.8%	10,075	2.8%
Fax	7,704	2.3%	9	<0.1%	7,713	2.1%
Refusals	29,020	8.7%	5,029	17.6%	34,049	9.4%
Other language	1,221	0.4%	220	0.7%	1,441	0.4%
Terminates during interview	825	0.2%	100	0.3%	925	0.3%
Terminates – screened out	6,520	2.0%	2,451	8.5%	8,971	2.5%
Never available	592	0.2%	61	0.2%	653	0.2%
Blocked Number	7	<0.1%	33	0.1%	40	<0.1%
Total Deads	**182,223**	**54.7%**	**10,826**	**37.6%**	**193,049**	**53.4%**
Total Completes	**5,299**	**1.6%**	**1,034**	**3.6%**	**6335**	**1.8%**
Total Sample Used	**333,004**	**100.0%**	**28,542**	**100.0%**	**361,546**	**100.0%**

Total Dialings: 361,546
Average Number of Dialings per Complete: 57.1
Pre-screened Invalid Sample Points: 214,849 (landline) + 72,838 (cell phone)
Total Sample Generated: 576,677 (landline) + 153,538 (cell phone)

Figure B-2. Dialing Dispositions by Sample Area

Final Dialing Disposition	Sample Area											
	1 Alexandria City, VA	2 Arlington Co., VA	3 Calvert Co., MD	4 Charles Co., MD	5 District of Columbia (DC)	6 Fairfax Co., VA	7 Frederick Co., MD	8 Loudoun Co., VA	9 Montgomery Co., MD	10 Prince George's Co., MD	11 Prince William Co., VA	Total
1 Answering Machine	13,027	10,099	9,077	13,102	9,053	4,326	7,768	9,206	7,682	10,918	7,628	101,886
2 No Answer	4,919	5,783	2,537	4,423	5,717	2,343	2,407	3,511	3,252	4,668	2,818	42,378
3 Call Backs	881	650	709	1,158	897	262	609	621	764	1,089	675	8,315
4 Busy	1,793	1,263	413	667	1,167	450	463	870	515	842	872	9,315
5 Over Quota	13	11	7	31	10	121	14	8	18	34	1	268
Total Lives	20,633	17,806	12,743	19,381	16,844	7,502	11,261	14,216	12,231	17,551	11,994	162,162
101 Not in Service	25,636	22,877	10,458	14,173	16,344	4,249	4,633	8,008	7,050	12,151	3,603	129,182
102 Business	1,579	1,186	667	1,156	1,108	363	688	794	768	1,069	697	10,075
103 Fax	1,271	819	610	945	705	276	399	721	603	812	552	7,713
104 Refusals	3,438	3,292	3,678	4,906	3,112	1,310	3,046	2,766	2,676	3,186	2,639	34,049
105 Other Language	187	191	63	106	127	99	64	118	198	160	128	1,441
106 Terminates during interview	86	82	93	106	78	65	78	63	79	97	98	925
107 Terminates - Screened out	691	845	987	1,605	1,013	352	831	538	661	940	508	8,971
108 Never Available	72	68	61	89	87	18	45	41	53	70	49	653
109 Blocked Number	3	4	1	3	4	3	3	2	1	14	2	40
Total Deads	32,963	29,364	16,618	23,089	22,578	6,735	9,787	13,051	12,089	18,499	8,276	193,049
201 Landline Completes in Landline Area	501	482	481	481	479	454	475	484	483	485	481	5,286
202 Landline Completes in Cell Phone Area	18	21	10	7	16	20	10	5	14	12	10	143
203 Cell Phone Completes in Cell Phone Area	54	73	84	87	81	103	88	85	77	76	83	891
204 Cell Phone Completes in Landline Area	2	0	2	0	1	2	2	1	1	3	1	15
Total Completes	575	576	577	575	577	579	575	575	575	576	575	6,335
Total	54,171	47,746	29,938	43,045	39,999	14,816	21,623	27,842	24,895	36,626	20,845	361,546
Total Prescreened - Invalid Phone	**12,896**	**17,263**	**7,730**	**16,894**	**20,476**	**11,751**	**12,939**	**4,558**	**14,607**	**23,188**	**11,405**	**153,707**

APPENDIX C
SURVEY QUESTIONNAIRE

NOTE – COMBINED LANDLINE AND CELL PHONE SCREENERS TOGETHER
ALL RESPONDENTS WILL BE ASKED IF THEY ARE ON A CELL PHONE

LANDLINE INTRODUCTION
Hello. My name is _____. I'm calling (from CIC Research) on behalf of the Metropolitan Washington Council of Governments___. We're talking to residents of Maryland, Virginia, and the District of Columbia about their travel to work. (**IF NECESSARY**: This is a genuine survey. No attempt will be made to sell you anything. Your answers will be kept completely confidential and will be used only together with those of other respondents.)
Is now a good time? (IF YES, CONTINUE TO QSA) (IF NO, **ARRANGE CALL BACK**)

CELLPHONE INTRODUCTION
Hello. My name is _____. I'm calling (from CIC Research) on behalf of the Metropolitan Washington Council of Governments. We're talking to residents of Maryland, Virginia, and the District of Columbia about their travel to work.

SCREENING QUESTIONS (Age, Employment, Home location)

SA Did I reach you on a cell phone for this call?

1 Yes
2 No **(SKIP TO S4)**
9. DK/Refused **(THANK AND TERMINATE)**

SB Are you in a place where it is safe to talk?
1 Yes – **CONTINUE INTERVIEW WITH QSB2**
2 No – **SAY: I'll call back another time (TERMINATE)**
9 Refused **(THANK & TERMINATE)**

SB2 Are you driving right now?
1 Yes – **ASK QSC**
2 No – **CONTINUE INTERVIEW WITH QS2**

SC I'd like to schedule a time to call you back either on this number or on a landline phone number. Which would you prefer?

1 Schedule callback
2 Call back on landline phone (record phone number)
3 Cell phone used for business only **(THANK & TERMINATE, CODE AS BUSINESS)**
9 Refused **(THANK & TERMINATE)**

S2 If you can complete the survey, we will send you a $5 Amazon.com gift card to thank you.

S3 Are you an employed person who is at least 18? By employed, I mean a wage or salaried employee, military, or self-employed…

1 yes (**SKIP TO Q1**)
2 no (**THANK AND TERMINATE)**

S4 Are you an employed person who is at least 18? By employed, I mean a wage or salaried employee, military, or self-employed…

1 yes (**SKIP TO Q1**)
2 no (**ASK QS5**)

S5 Is anyone else in your household employed either full-time or part-time?

1 yes (**ASK FOR THAT PERSON AND REPEAT INTRO, THEN GO BACK TO QS4 OR ARRANGE CB**)
2 no (**THANK AND TERMINATE**)

EMPLOYMENT STATUS AND HOME / WORK LOCATION

1 Are you employed 35 hours or more per week, or less than 35 hours?

1 Employed full-time (35 hours or more) (**CONTINUE**)
2 Employed part-time (less than 35 hours) (**CONTINUE**)
3 Not employed, keeping house, retired, disabled, full-time student, looking for work (**GO BACK TO QS5**)
8 Don't know (**THANK & TERMINATE**)
9 Refuse (**THANK & TERMINATE**)

1a What is your home zip code?

_____

HOME CLASSIFICATION

AUTOCODE COUNTY FOR CHANTILLY
IF Q1a = 20151, AUTOCODE Q2 = 6 (Fairfax), THEN SKIP TO Q3
IF Q1a = 20152, AUTOCODE Q2 = 8 (Loudoun), THEN SKIP TO Q3

AUTOCODE ALEXANDRIA (EXCEPT 22311)
IF Q1a = 22301, 22302, 22304, 22305, OR 22314, AUTOCODE Q2 = 1 (Alexandria), THEN SKIP TO Q3
IF Q1a = 22303, 22306, 22307, 22308, 22309, 22310, OR 22315, AUTOCODE Q2 = 6 (Fairfax), THEN SKIP TO Q3

AUTOCODE TAKOMA PARK, MD, TAKOMA DC
IF Q1a = 20903, 20910, 20912, 20913, AUTOCODE Q2 = 9 (Montgomery), THEN SKIP TO Q3
IF Q1a = 20011 OR 20012, AUTOCODE Q2 = 5 (DC), THEN SKIP TO Q3

AUTOCODE LAUREL
IF Q1a = 20707 OR 20708, AUTOCODE Q2 = 10 (Prince Georges), THEN SKIP TO Q3
IF Q1a = 20723 OR 20724, AUTOCODE Q2 = 12 (Other –out of area), THEN THANK AND TERMINATE

AUTOCODE SILVER SPRING (EXCEPT 20903)
IF Q1a = 20901, 20902, 20904, 20905, 20906, OR 20910, AUTOCODE Q2 = 9, THEN SKIP TO Q3

AUTOCODE STERLING
IF Q1a = 20164, 20165, OR 20166, AUTOCODE Q2 = 8 (Loudoun), THEN SKIP TO Q3

AUTOCODE FAIRFAX AND FALLS CHURCH CITIES
IF Q1a = 22030, 22041, 22042, 22043, 22044, OR 22046, AUTOCODE Q2 = 6 (Fairfax), THEN SKIP TO Q3

AUTOCODE WALDORF (EXCEPT Q20601)
IF Q1a = 20602 OR 20603, AUTOCODE Q2 = 12 (Other - out of area), THEN THANK AND TERMINATE

AUTOCODE MANASSAS, MANASSAS PARK
IF Q1a = 20110 OR 20113, AUTOCODE Q2 = 11, THEN SKIP TO Q3

IF Q1a = ANY OTHER ZIP CODE, ASK Q2

QUOTA SCREENER – NEED 600 IN EACH OF 11 AREAS 1 - 11

2 In what county (or Independent City) do you live now? (**DO NOT READ**)

1 Alexandria City, VA
2 Arlington Co., VA
3 Calvert Co., MD
4 Charles Co., MD
5 Washington, DC (District of Columbia)
6 Fairfax Co., VA (City of Falls Church, City of Fairfax)
7 Frederick Co., MD (City of Frederick)
8 Loudoun Co., VA (South Riding)
9 Montgomery Co., MD (City of Rockville, City of Gaithersburg, City of Takoma Park, Silver Spring)
10 Prince George's Co., MD(City of Greenbelt, City of College Park, City of Bowie)
11 Prince William Co., VA (City of Manassas, City of Manassas Park)
12 Other (SPECIFY) _____ (**THANK AND TERMINATE**)
88 Don't know **(THANK AND TERMINATE)**
99 Refused **(THANK AND TERMINATE)**

IF Q2 = 5, HMST = 1 (District of Columbia)
IF Q2 = 3, 4, 7, 9, OR 10, HMST = 2 (Maryland)
IF Q2 = 1, 2, 6, 8, OR 11, HMST = 3 (Virginia)

3 In what county (or independent city) do you work? **(IF "ALL OVER", ASK:** Where do you work the most?) **(DO NOT READ)**

1 Alexandria City (VA)
2 Anne Arundel Co. (MD)
3 Arlington Co. (VA)
4 Calvert Co. (MD)
5 Charles Co. (MD)
6 Washington, DC (District of Columbia)
7 Fairfax Co. (VA)
8 Fairfax City (VA)
9 Falls Church City (VA)
10 Frederick Co. (MD)
11 Howard Co. (MD)
12 Loudoun Co. (VA)
13 Manassas City (VA)
14 Manassas Park City (VA)
15 Montgomery Co. (MD)
16 Prince George's Co. (MD)
17 Prince William Co. (VA)
18 Stafford Co. (VA)
19 Baltimore County (MD)
20 Carroll County (MD)
21 Other _____
88 Don't know
99 Refuse

IF Q3 = 6, WKST = 1 (District of Columbia)
IF Q3 = 2, 4, 5, 10, 11, 15, 16, 19, OR 20, WKST = 2 (Maryland)
IF Q3 = 1, 3, 7, 8, 9, 12, 13, 14, 17, OR 18, WKST = 3 (Virginia)
IF Q3 = 21, 88, OR 99, WKST = 9 (Unknown)

COMMUTE PATTERNS / WORK SCHEDULE / TW STATUS

Now, I'd like to ask you some questions about your commute to and from work. If you have more than one job, just tell me about your primary job.

4 First, in a TYPICAL week, how many days are you assigned to work?

_____ days
____ "0", not currently working

IF Q4 = 0 AND RESPONDENT WAS REACHED ON CELL PHONE, THANK AND TERMINATE
IF Q4 = 0 AND RESPONDENT WAS REACHED ON LANDLINE PHONE, GO BACK TO QS5

5 How many of those days are weekdays (Monday-Friday)?

_____ days
____ "0", (**CODE AS WKALL, THEN SKIP TO Q57**)

6 And how many weekdays do you commute to a work location outside your home? (**IF RESPONDENT SAYS, "VARIES BY WEEK" OR "DON'T KNOW", PROMPT "**What would you say would be most typical**?" IF RESPONDENT STILL SAYS "DON'T KNOW," CODE AS 8**)

10 None (**CONTINUE TO Q8**)
1 One
2 Two
3 Three
4 Four
5 Five
8 Don't know (**SKIP TO Q61**)
9 Refuse (**SKIP TO Q61**)

IF Q1 = 2 (work part-time), SKIP TO Q13
IF Q1 = 1 AND Q6 = 1, 2, 3, 4, OR 5, SKIP TO Q11

8 So to be sure I understand, you work at home every weekday you work. Is that right?

1 Yes (**CONTINUE**)
2 No (**INTERVIEWER PROMPT, "SO YOU COMMUTE TO A WORK LOCATION OUTSIDE YOUR HOME ONE OR MORE WEEKDAYS, IS THAT CORRECT?) GO BACK TO Q5**)

9 Are you self-employed with your primary work location at home?

1 Yes (**PROGRAMMER, CODE AS HOMEALL, THEN SKIP TO INSTRUCTIONS BEFORE Q15**)
2 No (**CONTINUE**)

10 Do you telecommute every weekday you work?

1 Yes (**PROGRAMMER, CODE AS TELEALL, SKIP TO INSTRUCTIONS BEFORE Q13**)
2 No (**SPECIFY SITUATION, THEN THANK AND TERMINATE**)

11 Do you work a compressed schedule, for example, a full-time work week in fewer than five days?

1 yes (**CONTINUE**)
2 no (**SKIP TO INSTRUCTIONS BEFORE Q13**)

12 What type of schedule do you work? (**DO NOT READ, UNLESS NEEDED TO CLARIFY**)

1 4/40 (4 10-hour days per week, 40 hours)
2 9/80 (9 days every 2 weeks, 80 hours)
3 3/36 (3 12-hour days per week, 36 hours - police, fire, hospitals)
4 N/A
5 Work 5 or more days per week, 35 or more hours per week (RECODE Q11 = 2)
6 other (SPECIFY) _____

INSTRUCTIONS BEFORE Q13
IF TELEALL (FROM Q10), AUTOCODE Q13 = 1, THEN SKIP TO Q13a

13 Now I want to ask you about telecommuting, also called teleworking. For purposes of this survey, "telecommuters" are defined as "wage and salary employees who at least occasionally work at home or at a telework or satellite center during an entire work day, instead of traveling to their regular work place." Based on this definition, are you a telecommuter?

1 yes
2 no (**SKIP TO Q14d**)
9 DK/Ref (**SKIP TO Q14d**)

13a Does your employer have a formal telecommuting program at your workplace or do you telecommute under an informal arrangement between you and your supervisor?

1 formal program
2 informal arrangement
3 N/A
9 DK/Ref

IF TELEALL AND Q5 = 1, AUTOCODE Q14 = 4, THEN SKIP TO INSTRUCTIONS BEFORE Q15
IF TELEALL AND Q5 = 2, AUTOCODE Q14 = 5, THEN SKIP TO INSTRUCTIONS BEFORE Q15
IF TELEALL AND Q5 = 3, 4, 5, 6, OR 7, AUTOCODE Q14 = 6, THEN SKIP TO INSTRUCTIONS BEFORE Q15

14 How often do you usually telecommute? (**DO NOT READ**)

1 occasionally for special project
2 Less than one time per month/only in emergencies (e.g., sick child, snowstorm)
3 1-3 times a month
4 one day a week
5 two days a week
6 3 or more times a week
7 other (**SPECIFY**) _____
9 DK/Ref.

SKIP TO INSTRUCTIONS BEFORE Q15

14d Does your employer have a formal telecommuting program at your workplace or permit employees to telecommute under an informal arrangement with the supervisor?

1 yes, formal program
2 yes, informal arrangement
3 no
9 DK/Ref

14e Would your job responsibilities allow you to work at a location other than your main work place at least occasionally?

1 yes
2 no **(SKIP TO INSTRUCTIONS BEFORE Q15)**
9 DK/Ref **(SKIP TO INSTRUCTIONS BEFORE Q15)**

14f Would you be interested in telecommuting on an occasional or regular basis?

1 yes, occasional basis
2 yes, regular basis
3 no
9 DK/Ref

CURRENT COMMUTE PATTERNS

INSTRUCTIONS BEFORE Q15
IF HOMEALL FROM Q9, DON'T ASK Q15. AUTO FILL Q15, RESPONSE 18 = Q5, THEN SKIP TO Q61
IF TELEALL FROM Q10, DON'T ASK Q15. AUTO FILL Q15, RESPONSE 2 = Q5, THEN SKIP TO INSTRUCTIONS BEFORE Q34

15 Now thinking about LAST week, how did you get to work each day. Let's start with Monday? … How about Tuesday? … Wednesday? …. Thursday? …. Friday?

IF RESPONDENT MENTIONS MORE THAN ONE MODE ON ANY DAY, PROMPT FOR THE MODE USED FOR THE LONGEST DISTANCE PORTION OF THE TRIP. IF RESPONDENT SAYS DRIVE ALONE TO TRANSIT, CARPOOL, VANPOOL, OR BIKE AND DRIVE ALONE IS LONGEST DISTANCE, CODE TRANSIT, CARPOOL, VANPOOL, OR BIKE MODE, RATHER THAN DRIVE ALONE.

IF Q12 = 1, 2, OR 3 AND RESPONDENT DOES NOT MENTION "CWS day off" (RESPONSE 1), ASK: "You said you typically work a compressed work schedule. Did you have a compressed work schedule day off last week?"

IF Q14 = 4, 5, OR 6 AND RESPONDENT DOES NOT MENTION "Telecommute" (RESPONSE 2), ASK: "You said you typically telecommute one or more days per week. Did you telecommute last week?"

IF RESPONDENT SAYS TRAVEL TO WORK IN A CAR, TRUCK, OR VAN, SAY, Were you alone in the vehicle? IF YES, REPORT RESPONSE 3. IF NO, SAY, "Including yourself, how many people were in the vehicle?" IF 2-4, RECORD RESPONSE 5, IF 5, PROBE TO ASK ABOUT VANPOOL, THEN CODE RESPONSE 5 OR 7 AS APPROPRIATE, IF 6 OR MORE, RECORD AS RESPONSE 7

IF ALL WEEKDAYS IN Q5 ARE ACCOUNTED FOR BY MODES 1-15 IN Q15 BEFORE ALL WEEKDAYS ARE COUNTED, ASK: You said you typically work only (number of weekdays reported in Q5) per week. Were the weekdays I haven't asked you about regular days off for you last week? IF RESPONSE IS YES, CATI WILL AUTOFILL REMAINING DAYS WITH CODE 16; OTHERWISE CONTINUE AND RECORD MODES USED FOR THOSE DAYS

IF RESPONDENT MENTIONS "SICK, VACATION, HOLIDAY" (RESPONSE 17) FOR ANY DAY, CODE RESPONSE 17, THEN ASK "If you had worked that day, how would you likely have traveled to work?" AND CODE ADDITIONAL MODE RESPONSE FOR THAT DAY. KEEP RESPONSE 17 IN FINAL DATABASE

Mode/Day of Week	Go to Work Mon	Tues	Wed	Thur	Fri
1 compressed work schedule day off	1	1	1	1	1
2 telecommute/telework	2	2	2	2	2
3 drive alone in your car, truck, or van	3	3	3	3	3
4 motorcycle	4	4	4	4	4
5 carpool, including carpool w/family member, dropped off	5	5	5	5	5
6 casual carpool (slugging)	6	6	6	6	6
7 vanpool	7	7	7	7	7
8 buspool	8	8	8	8	8
9 rode a bus (public Bus, shuttle)	9	9	9	9	9
10 Metrorail	10	10	10	10	10
11 MARC (MD Commuter Rail)	11	11	11	11	11
12 VRE	12	12	12	12	12
13 AMTRAK/other train	13	13	13	13	13
14 bicycle (including Capital Bikeshare, CABI)	14	14	14	14	14
15 walk	15	15	15	15	15
16 regular day off (non-CWS)	16	16	16	16	16
17 sick, vacation, holiday, work out of area, etc. (prompt for travel on non sick, vacation day)	17	17	17	17	17
18 work at home – self-employed	18	18	18	18	18
19 taxi	19	19	19	19	19
20 N/A					
21 N/A					
88 N/A					

IF Q15 NE 14 ANY DAY, SKIP TO Q16
IF Q15 = 14 (bicycle) FOR ANY DAY AND (Q2 = 1, 2, OR 5 OR Q3 = 1, 3, OR 6), ASK Q15a, OTHERWISE, SKIP TO Q16

15a On the day(s) that you biked to work, did you ride a Capital Bikeshare bike or a personal bike that you own or borrowed?

1 Capital Bikeshare bike
2 Personal bike (including borrowed from friend or family member)
9 DK, ref

16 How long is your typical daily commute one way? Please tell me both how many minutes and how many miles. First, how many minutes?

Number of minutes _____
Time varies _____
888 Don't know
999 Refuse

17 And how many miles? (**IF LESS THAN 1 MILE, RECORD AS 0.5**)

Number of miles _____
888 Don't know
999 Refuse

17a At what time do you typically arrive at work? **(IF RESPONDENT SAYS SCHEDULE VARIES, ASK WHAT IS MOST TYPICAL. CODE 12 (varies) ONLY IF RESPONDENT CANNOT OFFER A TYPICAL TIME.)**

1 12:01 am – 5:59 am
2 6:00 am – 6:29 am
3 6:30 am – 6:59 am
4 7:00 am – 7:29 am
5 7:30 am – 7:59 am
6 8:00 am – 8:29 am
7 8:30 am – 8:59 am
8 9:00 am – 9:29 am
9 9:30 am – 9:59 am
10 10:00 am – 5:59 pm
11 6:00 pm – 12 midnight
12 Varies from week to week
99 DK / Refused

DEFINE Q15 MODES USED (ALLOW MULTIPLE MODES) – AUTOCODE ONLY:

CWDAYS = SUM OF Q15, RESPONSE 1
TWDAYS = SUM OF Q15, RESPONSE 2
DADAYS = SUM OF Q15, RESPONSE 3, 4, 19
CPDAYS = SUM OF Q15, RESPONSE 5, 6
VPDAYS = SUM OF Q15, RESPONSE 7
BUDAYS = SUM OF Q15, RESPONSES 8, 9
MRDAYS = SUM OF Q15, RESPONSE 10
CRDAYS = SUM OF Q15, RESPONSE 11, 12, 13
BKDAYS = SUM OF Q15, RESPONSE 14
WKDAYS = SUM OF Q15, RESPONSE 15

IF CWDAYS > 0, Q15 MODE = 1 COMPRESSED SCHEDULE
IF TWDAYS > 0, Q15 MODE = 2 TELEWORK
IF DADAYS > 0, Q15 MODE = 3 DRIVE ALONE
IF CPDAYS > 0, Q15 MODE = 4 CARPOOL
IF VPDAYS > 0, Q15 MODE = 5 VANPOOL
IF BUDAYS > 0, Q15 MODE = 6 BUS
IF MRDAYS > 0, Q15 MODE = 7 METRORAIL
IF CRDAYS > 0, Q15 MODE = 8 COMMUTER TRAIN)
IF BKDAYS > 0, Q15 MODE = 9 BICYCLE
IF WKDAYS > 0, Q15 MODE = 10 WALKING

DEFINE PRIMARY MODE
SET PRMODE = Q15 MODE WITH HIGHEST NUMBER OF DAYS. IF TIE FOR HIGHEST NUMBER, CHOOSE PRIMARY MODE IN THIS PRIORITY ORDER: 5 (VANPOOL), 4 (CARPOOL), 7 (METRORAIL), 6 (BUS), 8 (COMMUTER TRAIN), 9 (BICYCLE), 10 (WALKING), 2 (TELEWORK), 3 (DRIVE ALONE). DO NOT SELECT COMPRESSED SCHEDULE (1) AS PRIMARY MODE

DEFINE CALTDAYS = TOTAL Q15 DAYS USING MODES 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

USE OF ALTERNATIVE MODES

IN Q18, <MODE Q15> = ALL MODES 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 19 NAMED IN Q15

18 How long have you been using <**MODE Q15**> to get to work? **(DO NOT READ)**

IF MORE THAN ONE <MODE Q15>, REPEAT FOR OTHER <MODE Q15>
ADD TO BRIEFING DOCUMENT INSTUCTIONS IF RESPONDENT SAYS, "DO YOU MEAN HOW LONG HAVE I BEEN USING <MODE Q15, THIS TYPE OF TRANSPORTATION> OR HOW LONG I'VE BEEN IN THIS PARTICULAR <MODE Q15, bus route, carpool, vanpool, etc.>," INTERVIEWER SHOULD SAY, "USING <**MODE Q15**, this type of transportation>.

CODE MONTHS FOR EACH MODE CURRENTLY USED
IF LESS THAN ONE MONTH, CODE 1 MONTH
IF RESPONDENT SAYS "always used," "only used," or "no other choice / no other option" FOR ANY <MODE Q15>, CODE MONTHS AS 888.
IF RESPONDENT SAYS, "don't know" FOR ANY <MODE Q15>, CODE MONTHS AS 999

		Number of months
1	N/A	
2	N/A	_____
3	drive alone	_____
4	motorcycle	_____
5	carpool	_____
6	casual carpool (slugging)	_____
7	vanpool	_____
8	buspool	_____
9	bus	_____
10	Metrorail	_____
11	MARC	_____
12	VRE	_____
13	AMTRAK, other train	_____
14	Bicycle	_____
15	Walk	_____
16	N/A	
17	N/A	
18	N/A	
19	Taxi	_____

DEFINE RECENT MODE = Q18 MODE WITH FEWEST MONTHS
IF TIE FOR RECENT MODE, DESIGNATE BOTH MODES AS RECENT MODE

Skip Q19a – Q20 (reasons for change) if respondent has never used another mode
IF Q18 = 888 FOR RECENT MODE, AUTOCODE Q19a = 20, THEN SKIP TO Q22

Skip Q19a – Q20 (reasons for change) if RECENT MODE duration is more than 3 years
IF RECENT MODE Q18 DURATION IS GREATER THAN 36 MONTHS, SKIP TO Q22

19a Before starting to <RECENT MODE Q15> to work, what type or types of transportation did you use to get to work? (**ALLOW MULTIPLE MODES 1 – 15 AND 19. DO NOT ACCEPT MULTIPLES FOR 20-21 OR 99**)

IF Q12 = 1, 2, OR 3 AND RESPONDENT DOES NOT MENTION "CWS day off" (RESPONSE 1), ASK: "You said you typically work a compressed work schedule now. Did you work a compressed schedule at that time?"

IF Q14 = 4, 5, OR 6 AND RESPONDENT DOES NOT MENTION "Telecommute" (RESPONSE 2), ASK: "You said you typically telecommute one or more days per week now. Did you telecommute at that time?"

(DO NOT READ OTHER RESPONSES)

1 compressed work schedule
2 telecommute
3 drive alone in your car, truck, van
4 motorcycle
5 carpool, including carpool with family member, dropped off
6 casual carpool (slugging)
7 vanpool
8 buspool
9 bus
10 Metrorail
11 MARC
12 VRE
13 AMTRAK, other train
14 Bicycle (including Capital Bikeshare, CABI)
15 walk
16 N/A
17 N/A
18 N/A
19 Taxi
20 always used, only used <RECENT MODE Q15>
21 not working then, not in DC area then
99 Don't know, refused

20 What were the reasons you began using <**RECENT MODE Q15**>? **(DO NOT READ; CHECK ALL THAT APPLY) (Probe for the 3 most important and only record 3) (OKAY NOT TO SHOW INFREQUENT INCIDENCE RESPONSES ON SCREEN – CODE AS OTHER THEN CODE TO PROPER CATEGORIES IN POST-PROCESSING)**

Personal circumstances/preferences

1 changed jobs/work hours
2 moved to a different residence
3 employer or worksite moved
4 spouse started new job
5 save money
6 save time
7 gas prices too high
8 tired of driving
9 prefer to drive, wanted to drive
10 safety
11 no vehicle available
12 car became available, additional car in household
13 to stay with family/children
14 HOV lanes too congested
15 Congestion (other)
16 always used
17 close to work or transportation pick up/drop off location
18 afraid of or didn't like previous form of transportation
19 stress
20 weather
21 bought hybrid vehicle
22 convenient (NOT AN ANSWER, PROBE FOR WHY IT'S CONVENIENT)
23 to get exercise
24 concerned about the environment, global warming

Commute Services/Programs

25 new option that became available
26 special program at work
27 pressure or encouragement from employer
28 GRH
29 Ozone action/Code Red days
30 no parking
31 parking expense, parking cost too high
32 found carpool partner (Commuter Connections ridematch, ZimRide, Avego, craigslist, other)
33 NuRide (VA carpool incentive)
34 SmartTrip/SmartBenefit, transit subsidy, vanpool subsidy
35 Commuter Choice Maryland

Information/Promotion

36 advertising
37 initiated request/looked for information on my own
38 info. from Commuter Connections/Council of Governments/COG/800 number
39 Commuter Connections Website
40 other Website
41 word of mouth/recommendation
42 information from transit agency
43 saw highway sign
44 yellow pages
45 Other _____

88 Don't know
99 Refuse

ALTERNATIVE MODE PATTERNS

IF Q15 = 5, 6, 7, CONTINUE, OTHERWISE, SKIP TO Q29

28 Now I'd like to ask you about your current car/van pool (FROM Q15). Including yourself, how many people usually ride in your carpool or vanpool? **(IF MORE THAN 1 ANSWER IN Q15, SELECT 1 USING THIS PRIORITY: vanpool, carpool, casual carpooling/slug)**

_____ total people in pool (must be more than 1)

IF Q15 = 5, 6, 7, 8, 9, 10, 11, 12, OR 13, CONTINUE USING THE MOST COMMON ALTERNATIVE MODE, OTHERWISE, SKIP TO INSTRUCTIONS BEFORE Q34

29 How do you get from home to where you meet your <Q15 ALT MODE: carpool, vanpool, buspool, bus, or train>?

1 picked up at home by car/van pool (**SKIP TO INSTRUCTIONS BEFORE Q34**)
2 drive alone to driver's home or drive alone to passenger's home
3 drive to a central location, like park & ride, or train or subway station
4 dropped off or another car/van pool
5 bicycle
6 motorcycle
7 walk
8 I am the driver of car pool/van pool (**SKIP TO INSTRUCTIONS BEFORE Q34**)
9 bus/transit
10 other (**SPECIFY**) _____

30 How many miles is it one way from your home to where you meet your <**Q15 ALT MODE**: carpool, vanpool, buspool, bus, or train>? **(IF LESS THAN 1 MILE, ENTER 0.5**)

_____ miles

TELEWORK

INSTRUCTIONS BEFORE Q34
IF TELEALL, ASK Q34, BUT DO NOT READ INTRO TO Q34, SKIP DIRECTLY TO Q34
IF Q13 = 1 OR Q15 = 2 ANY DAY, CONTINUE WITH INTRO TO Q34, OTHERWISE, SKIP TO INTRO BEFORE Q44

INTRO TO Q34: Now I have a few more questions about telecommuting.

34 How long have you been telecommuting?

_____ months **(CONVERT YEARS TO MONTHS)**
999 Don't know/refused

IF TELEALL, AUTOCODE Q36 = 1, THEN SKIP TO Q42

36 Where do you work when you telecommute? Do you work at home, in a telework center, a satellite office provided by your employer, or someplace else? (**IF NECESSARY**: Telework Centers are facilities located around the Washington area where employees can work closer to home some or all of the time.)

1 Home (**SKIP TO Q42**)
2 Telework Center
3 Both home and Telework Center
4 Satellite office provided by employer
5 Both home and satellite office
6 Business service center (Kinkos) or other "retail" location
7 Both home and business service center (Kinkos) or other "retail" location
8 Library or community center
9 Both home and library or community center
10 Executive office suites
11 Both home and executive office suites
12 other location (**SPECIFY**) _____

IF Q36 = 3, 5, 7, 9, OR 11, CONTINUE, OTHERWISE, SKIP TO Q38

37 How many days per week, on average, do you telecommute from the location outside your home?

_____ days per week

38 How many miles is it one way from your home to this location?

_____ miles (ALLOW ONE DECIMAL)

39 And how do you get from home to this location? **(DO NOT READ RESPONSES)**

1 N/A
2 N/A
3 drive alone
4 motorcycle
5 carpool, including carpool with family member, dropped off
6 casual carpool (slugging)
7 vanpool
8 buspool
9 bus
10 Metrorail
11 MARC
12 VRE
13 AMTRAK, other train
14 Bicycle (including Capital Bikeshare, CABI)
15 walk
16 N/A
17 N/A
18 N/A
19 taxi
99 DK/Ref

42 How did you find out about telecommuting?" **(DO NOT READ)**

1 advertising (radio, newspaper or TV)
2 special program at work/employer provided information
3 initiated request on my own
4 information from Commuter Connections / COG (Council of Governments)
5 word of mouth
6 newspaper or magazine article
7 Commuter Connections Website
8 Other Website
9 County or jurisdiction program
10 other (SPECIFY) _____
99 DK/Ref

IF Q42 = 4 OR 7, AUTOCODE Q43 = 1, THEN SKIP TO INTRO BEFORE Q44

43 Did you receive any information about telecommuting from Commuter Connections or from the Metropolitan Washington Council of Governments?

1 yes
2 no
9 DK/Ref

IF TELEALL, SKIP TO Q61

AVAILABILITY OF TRANSPORTATION OPTIONS

INTRO BEFORE Q44: Next, I want to ask you about transportation services that might be available in your area.

44 Regardless of whether or not you use them, do any train or bus companies provide service in the area where you live? How about train? And bus?

Service in Home Area	1 – Yes	2 – No	3 – Don't know
1 Bus			
2 Train			

44a About how far from your home is the nearest bus stop? **(NOTE IF MILES OR BLOCKS)**

Number of miles _____
Number of blocks _____
999 Don't know

44b How far from your home is the nearest train station? **(NOTE IF MILES OR BLOCKS)**

Number of miles _____
Number of blocks _____
999 Don't know

44c Do any train or bus companies provide service in the area where you **work**? How about train? And bus?

Service in Work Area	1 – Yes	2 – No	3 – Don't know
1 Bus			
2 Train			

IF SUM OF (DADAYS + CPDAYS + VPDAYS) = 4 OR 5, INSERT "What major roads do you use on your trip to work?"
IF SUM OF (DADAYS + CPDAYS + VPDAYS) = 1, 2, OR 3, INSERT, "On days that you drive or ride to work in a personal vehicle, what major roads do you use?"
IF SUM OF (DADAYS + CPDAYS + VPDAYS) = 0, INSERT, "If you were to drive to work, what major roads would you use?"

45 [What major roads do you use on your trip to work?;
On days that you drive or ride to work in a personal vehicle, what major roads do you use?;
If you were to drive to work, what major roads would you use?]

ASK FIRST: How about Interstate highways or major U.S. or state roads? CODE RESPONSES
ASK SECOND: And what about major county or city roads? CODE RESPONSES

IF RESPONDENT MENTIONS ANY OF: CAPITAL BELTWAY (I-495), I-95, US ROUTE 1, US ROUTE 29, OR US ROUTE 50, ASK "Is that in Maryland or Virginia?"
IF RESPONDENT MENTIONS USING I-66 IN VIRGINIA, ASK "Is that inside the Beltway or outside the Beltway?"

Interstates
1 Capital Beltway (I-495) (MD)
2 Capital Beltway (I-495) (VA)
3 I-66 OUTSIDE the Beltway (VA)
4 I-66 INSIDE the Beltway (VA)
5 I-95 (MD)
6 I-95 (VA)
7 I-270 (MD)
8 I-295 (DC / MD)
9 I-395 (VA)
10 I-695 (DC - Southeast-Southwest Freeway, Southwest Expressway)
11 I-695 (MD - Baltimore Beltway)

Major State / US Routes
12 BW Parkway (US 295, Baltimore-Washington Parkway - MD)
13 Dulles Toll Road (Dulles Greenway, Route 267)
14 GW Parkway (George Washington Parkway)
15 ICC (Inter-County Connector, Route 200)
16 US Route 1 (MD)
17 US Route 1 (VA - Richmond Highway, Jefferson Davis Highway)
18 US Route 29 (MD - Colesville Road, Columbia Pike)
19 US Route 29 (VA – Lee Highway))
20 US Route 50 (MD – John Hanson Highway)
21 US Route 50 (VA – Lee Jackson Highway, Arlington Blvd, Fairfax Blvd)
22 US Route 301 (MD)

Arterials
23 Braddock Road (Route 620 - VA)
24 Branch Avenue (Route 5 - MD)
25 Canal Road (DC)
26 Central Avenue (Route 214 - MD)
27 Chain Bridge Road (VA – Route 123)
28 Clara Barton Parkway (MD)
29 Columbia Pike (Route 244 - VA)
30 Connecticut Avenue (Route 185 – DC / MD)
31 Dolley Madison Blvd (Route 123 - VA)
32 Fairfax County Parkway (Route 7100, State Route 641 - VA)
33 Georgia Avenue (Route 97 - DC / MD)
34 Indian Head Highway (Route 210 - MD)
35 Leesburg Pike (Route 7 - VA)
36 Little River Turnpike (Route 236 - VA)
37 MacArthur Blvd (DC / MD)

38 New York Avenue (US Route 50 - DC)
39 North Capitol St (DC)
40 Pennsylvania Avenue (Route 4 – DC / MD)
41 Reston Parkway (VA)
42 Rhode Island Avenue (Route 1 - DC)
43 River Road (Route 190 – DC / MD)
44 Rockville Pike (Route 355 - MD)
45 Route 28 (Sully Road - VA)
46 Suitland Parkway (MD – MD 337)
47 Wisconsin Avenue (DC / MD)
48 16th Street (DC)
49 Route 28 (MD)

99 Other (specify) _____

46 Is there a special HOV (High Occupancy Vehicle) lane or express lane along your route to work?

1 Yes
2 No (**SKIP TO Q52**)
9 Refuse/Don't know (**SKIP TO Q52**)

IF Q15 = 15 ANY DAY, AUTOCODE Q47 = 3, THEN SKIP TO Q52

47 Do you ever use the HOV or express lane to get to or from work?

1 Yes
2 No (**SKIP TO Q52**)
3 No, not asked – walk to work
9 Refused/Don't know (**SKIP TO Q52**)

50 How much time does the HOV or express lane save you in your one-way trip to or from work?

_____ minutes
999 DK/Ref.

51 Did the HOV or express lane influence your decision to use your current way of commuting?

1 Yes
2 No
9 Refused/Don't know

52 Do you know the locations of Park 'n Ride lots along the route that you take to work?

1 Yes
2 No (**SKIP TO INSTRUCTIONS BEFORE Q54**)
3 There aren't any (**SKIP TO INSTRUCTIONS BEFORE Q54**)
8 Don't know (**SKIP TO INSTRUCTIONS BEFORE Q54**)
9 Refuse (**SKIP TO INSTRUCTIONS BEFORE Q54**)

53 In the past year have you used Park 'n Ride lots when commuting to work?

1 Yes
2 No
9 DK/Ref.

ATTITUDES TOWARD TRANSPORTATION MODES

INSTRUCTIONS BEFORE Q54
If Q15 = 8, 9, 10, 11, 12, 13 OR Q29 = 9, SKIP TO INSTRUCTIONS BEFORE Q56
If Q44 = 1 OR Q44c = 1, AUTOCODE Q54 = 1
If Q44 = 14 OR Q44c = 14, AUTOCODE Q54 = 2
IF BOTH RESPONSES 1 AND 2 ARE AUTOCODED IN Q54 (no bus and no train service), DO NOT READ Q54, SKIP TO Q56

54 You said earlier that you don't ride public transit (public transportation) regularly for your commute to work. Why not? (**DO NOT READ, ACCEPT MULTIPLE RESPONSES**)

1 No bus service available (in home area or in work area/bus too far away
2 No train service available (in how area or in work area/train too far away)
3 Don't know if service is available/don't know location of bus stops / train stations
4 Need my car for work
5 Need car before or after work
6 Need car for emergencies/overtime
7 It might not be safe/I don't feel safe on bus or at bus stops
8 It might not be safe/I don't feel safe on trains or train stations
9 Bus / train is unreliable/late
10 Trip is too long/distance too far
11 Takes too much time
12 Don't like to ride with strangers
13 Prefer to be alone during commute
14 Work schedule irregular
15 Too expensive
16 Buses are too uncomfortable/crowded
17 Trains are too uncomfortable/crowded
18 Buses or trains too dirty
19 Have to transfer/too many transfers
20 Had a bad experience with the bus or train in the past
21 Have to wait too long for the bus or between buses
22 Have to wait too long for the train or between train
23 Other (specify) _____
99 DK/Ref

INSTRUCTIONS BEFORE Q54
If Q15 = 5, 6, 7 OR Q29 = 1, 4, 8, SKIP TO Q56a1

56 You said that you do not use a carpool or vanpool for your trip to work. Why don't you carpool or vanpool? **(DO NOT READ, ACCEPT MULTIPLE RESPONSES)**

1 Don't know anyone to carpool/vanpool with
2 Need my car for work
3 Need car before or after work
4 Need car for emergencies/overtime
5 It might not be safe/I don't feel safe
6 Carpool/vanpool partners are/could be unreliable/late
7 Trip is too long/distance too far
8 Takes too much time
9 Doesn't save time
10 Don't like to ride with strangers
11 Prefer to be alone during commute
12 Work schedule irregular
13 Too expensive
14 Had a bad experience with carpooling/vanpooling in the past
15 Other (specify) _____
99 DK/Ref

56a1 Now I have a question about the benefits of traveling by carpool, vanpool, bus, or train. What impact or benefit does a community or region receive when people use these types of transportation? **(DO NOT READ)**

1 Less traffic, less congestion
2 Reduce air pollution, help the environment
3 Reduce greenhouse gases, reduce carbon footprint
4 Save energy
5 Less wear and tear on roads
6 Reduce accidents, improve travel safety
7 Reduce government costs
8 Less stress, less road rage
9 Other (specify) _____
88 No benefits
99 Don't know

INSTRUCTIONS BEFORE Q56b
IF CALTDAYS = 0, SKIP TO Q56e
IF WKDAYS > 0, ASK Q56b, INSERTING "bicycle"
IF BKDAYS > 0, ASK Q56b, INSERTING "walk"
IF CPDAYS > 0, ASK Q56b, INSERTING "carpool"
IF VPDAYS > 0, ASK Q56b, INSERTING "vanpool"
IF BUDAYS > 0 OR MRDAYS > 0 OR CRDAYS > 0, ASK Q56b, INSERTING "ride public transportation"

IF MULTIPLE ALT MODES ARE USED, SELECT THE ALT MODE WITH THE GREATEST NUMBER OF DAYS; IN THE CASE OF A TIE, USE THE FOLLOWING PRIORITY: bicycle, walk, vanpool, ride public transportation, carpool

56b You said you [bicycle, walk, carpool, vanpool, ride public transportation] to work some days. What benefits have you personally received from traveling to work this way? **(DO NOT READ)**

1 Save money
2 Avoid stress
3 Not need to have a car
4 Less wear and tear on car
5 Use travel time productively (e.g., read, work, sleep)
6 Have companionship when they travel
7 Arrive at work on time, less likely to be late
8 Get exercise, health benefits
9 Help the environment
10 Reduce greenhouse gases, reduce carbon footprint
11 Can use HOV lane
12 Other (specify) _____
88 No benefits
99 Don't know

IF CPDAYS = 0 AND VPDAYS = 0 AND BUDAYS = 0 AND MRDAYS = 0 AND CRDAYS = 0, SKIP TO Q56e

IF CPDAYS > 0, ASK Q56d, INSERTING "carpool"
IF VPDAYS > 0, ASK Q56d, INSERTING "vanpool"
IF BUDAYS > 0 OR MRDAYS > 0 OR CRDAYS > 0, ASK Q56d, INSERTING "ride public transportation"

IF MULTIPLE ALT MODES ARE USED, ASK ABOUT ALL THAT APPLY: carpool, vanpool, ride public transportation, BUT ASK Q56d ONLY ONCE FOR ALL MODES TOGETHER

56d On days that you [carpool, vanpool, ride public transportation] to work, how often do you do you read or write work-related material or check work messages on the way to work? Do you do these activities most days, some days, or rarely? (**DO NOT READ RESPONSES 4 OR 9; IF RESPONDENT SAYS HE/SHE CAN'T DO THE ACTIVITY BECAUSE HE/SHE IS ALWAYS THE DRIVER OF THE CARPOOL OR VANPOOL, CODE AS RESPONSE 4. IF RESPONDENT SAYS NEVER, CODE RESPONSE 3)**

1 Most days
2 Some days
3 Rarely, never
4 Always drive carpool or vanpool
9 Don't know

TRANSPORTATION SATISFACTION AND CURRENT COMMUTE COMPARED TO LAST YEAR

56e How satisfied you are with the transportation **system** in the Washington metropolitan region? "Transportation system" means all the services and options available to travel around the region and the quality of those services, including roads, buses and trains, and services for bicycling, walking, carpooling, and so forth."
Please use a scale of 1 to 5 where "1" means not at all satisfied and "5" means very satisfied.

	Not at all satisfied				**Very satisfied**	**(Don't Know)**
Scale:	1	2	3	4	5	9

56f Overall, how satisfied are you with your trip to work? Use a scale of 1 to 5, where "1" means not at all satisfied and "5" means very satisfied.

	Not at all satisfied				**Very satisfied**	**(Don't Know)**
Scale:	1	2	3	4	5	9

57 Would you say your commute is easier, more difficult, or about the same now as it was one year ago?

1 easier
2 more difficult
3 about the same
4 not applicable
9 DK/Ref

60 Have you changed your work or home location in the last year? **IF YES, AND RESPONDENT DOES NOT VOLUTEER INFORMATION, ASK**, "Did you change your home or work location?"

1 Yes, changed home location
2 Yes, changed work location
3 Yes, changed both home and work locations
4 No **(SKIP TO Q61)**
9 DK/Ref. **(SKIP TO Q61)**

60a Was your previous location also in the Washington metropolitan region?

1 Yes
2 No
9 DK/Refused

60b What factors did you consider in your decision to make this change? (**DO NOT READ, ACCEPT MULTIPLE RESPONSES)**

Commute Factors
1 Length, ease of commute
2 Cost of commuting
3 Commuting options that would be available (e.g., transit)

Residential Factors
4 Quality of schools, stay in same school system
5 Cost of house
6 Cost of living
7 Size of house
8 Quality of neighborhood
9 Closeness to family or friends
10 Entertainment, shopping, services nearby

Job Factors
11 Income, salary
12 Job satisfaction
13 Career advancement
14 Job opportunities for spouse

15 Other (SPECIFY) _____
19 DK/Refused

60c How important to your decision was the ease of your trip to work compared to the other factors you just mentioned? Was it less important than other factors, more important, or about the same importance?

1 Less important
2 More important
3 About the same importance
9 DK/Refused

IF Q60 = 1 OR 3, ASK Q60d and Q60e, OTHERWISE, SKIP TO Q61

60d Did your employer offer you any information about financial incentives that might be available to you if you moved your home to a location close to work?

1 Yes
2 No
9 DK/Refused

60e Did your employer offer you any information about financial incentives that might be available if you moved your home to a location close to a bus stop or train station?

1 Yes
2 No
9 DK/Refused

AWARENESS OF ADVERTISING

61 Have you heard, seen, or read any advertising about commuting in the past year?

1 yes
2 no (**SKIP TO Q81**)
9 DK/Ref (**SKIP TO Q81**)

62 What messages do you recall from this advertising? **(DON'T READ, ACCEPT MULTIPLE RESPONSES) (OKAY NOT TO SHOW INFREQUENT INCIDENCE RESPONSES ON SCREEN – CODE AS OTHER THEN CODE TO PROPER CATEGORIES IN POST-PROCESSING)**

1 none (**SKIP TO Q81**)
2 that you should rideshare, carpool, vanpool) (**PROBE FOR WHY AND RECORD ELSEWHERE**)
3 that new trains and/or buses are coming
4 that you can call for carpool or vanpool info
5 call 1-800-745-RIDE / call Commuter Connections
6 Commuter Choice Maryland
7 contact the Commuter Connections website (www.commuterconnections.org, www.commuterconnections.com)
8 it saves money
9 it saves time
10 it is less stressful
11 guaranteed ride home (GRH)
12 employer would give me SmartTrip/SmartBenefit benefits
13 it would help the environment
14 it reduces traffic
15 it saves wear and tear on the car
16 Ozone Action Days / Code Red Days
17 Telecommuting / telework
18 HOV lanes
19 regional services/programs are available to help with commute
20 use the bus or train, use Metrobus, Metrorail
21 Way to Go, Way to Go Arlington, Car Free Diet
22 Virginia MegaProjects, Dulles rail extension
23 HOT lanes / express lanes / toll roads
24 Inter-County Connector (ICC)
25 Bike to work Day
26 Car Free Day
27 Capital Bikeshare
28 Transit fare increase
29 Toll rate increase
30 Carshare, Zip car, Car2Go, Hertz on Demand
31 other (SPECIFY) _____
99 DK/Ref. (**SKIP TO Q81**)

63 What organization or group sponsored the ad you recall? **(DO NOT READ, ACCEPT MULTIPLE RESPONSES)**

1 Commuter Connections
2 Metropolitan Washington Council of Governments, MWCOG, COG
3 Metro, WMATA
4 MARC, Maryland Commuter Rail
5 VRE, Virginia Railway Express
6 VDOT (Virginia Department of Transportation)
7 DDOT (District of Columbia Department of Transportation)
8 MDOT (Maryland Department of Transportation)
9 VDRPT, Virginia Department of Rail and Public Transportation
10 Maryland State Highway Administration
11 MTA, Maryland Mass Transit Administration
12 WABA, Washington Area Bicycling Association
13 Arlington County Commuter Services
14 Loudoun County (Transit / Commuter services)
15 goDCgo
16 Federal government, federal agency (DOD, US DOT)
17 other (specify) _____
99 DK/Ref.

64 And where did you see, hear, or read this advertisement? **(DO NOT READ, ACCEPT MULTIPLE RESPONSES)**

1 Commuter Connections website
2 other website, internet (specify _____)
3 radio
4 TV
5 postcard in mail
6 newspaper
7 in train station
8 on train or bus
9 at work
10 billboard, poster, road sign
11 Facebook / Twitter (social media)
12 Smart phone / tablet (text message, email, ad)
13 other (_____)
19 DK/Ref.

IF HOMEALL, SKIP TO Q81
IF TELEALL, SKIP TO Q81
IF WKALL, SKIP TO Q81

Attitude changes/actions taken after hearing ads

65 After seeing or hearing this advertising, were you more likely to consider ridesharing or public transportation?

1 yes
2 no
9 DK/Ref

66 After seeing or hearing this advertising, did you take any actions to try to change how you commute?
IF YES, **ASK** "What actions did you take? (**DO NOT READ, ACCEPT MULTIPLES FOR 2-18, DO NOT ACCEPT MULTIPLES FOR 1 OR 99**)

No action
1 didn't take any action (**SKIP TO Q81**)

Sought information
2 looked for commute information on the internet
3 asked friend, family member, or co-worker for commute information (referral)
4 contacted a local or regional organization for commute information
5 looked for a carpool or vanpool partner
6 called a transit operator to ask about schedules or routes
7 asked employer about services (telework, SmartTrip SmartBenefit),

Started participating in commute service/program
8 registered for guaranteed ride home (GRH) program
9 started using HOV lane to get to work

Tried another way of getting to work, started using another form of transportation
10 tried or started driving alone to work
11 tried or started carpooling to work
12 tried or started vanpooling to work
13 tried or started using bus to get to work
14 tried or started using train to get to work
15 tried or started bicycling or walking to work
16 tried or started telecommuting/teleworking

Other
17 Changed personal situation (moved, new job)
18 other action (specify_____)

99 DK/Ref (**SKIP TO Q81**)

68 Did the advertising you saw or heard encourage you to take this action?

1 yes
2 no
9 DK/Ref

IF Q66 = ANY OF 11, 12, 13, 14, 15, OR 16, CONTINUE
IF Q66 NE 11, 12, 13, 14, 15, OR 16, SKIP TO Q81

Collect info on mode/modes used before trying/starting new alt mode
Autofill mode duration for respondents currently using alternative mode (Q15) named in Q66
IF Q66 EQ 11 AND Q15 = 5 OR 6, AUTOFILL Q71 = "still using," THEN SKIP TO Q72a
IF Q66 EQ 12 AND Q15 = 7, AUTOFILL Q71 = "still using," THEN SKIP TO Q72a
IF Q66 EQ 13 AND Q15 = 8 OR 9, AUTOFILL Q71 = "still using," THEN SKIP TO Q72a
IF Q66 EQ 14 AND Q15 = 10, 11, 12, OR 13, AUTOFILL Q71 = "still using," THEN SKIP TO Q72a
IF Q66 EQ 15 AND Q15 = 14 OR 15, AUTOFILL Q71 = "still using," THEN SKIP TO Q72a
IF Q66 EQ 16 AND Q15 = 2, AUTOFILL Q71 = "still using," THEN SKIP TO Q72a

71 How long did you <ALT MODE FROM Q66> to work? (**IF MORE THAN ONE ALT MODE NOTED IN Q66, ASK DURATION FOR ALL**)

_____ months (**CONVERT YEARS TO MONTHS**)
_____ less than one month
_____ 991 occasionally (tried one, emergency use) (**SKIP TO Q81**)
_____ 999 still using

999 DK/Ref.

IF Q66 = MORE THAN ONE OF 11, 12, 13, 14, 15, 16, THEN CHOOSE ALT MODE USED LONGEST TIME FOR Q72a. IF MORE THAN ONE ALT MODE USED SAME AMOUNT OF TIME, CHOOSE BOTH MODES.

72a Before trying <ALT MODE FROM Q66> to work, what type or types of transportation did you use to get to work? (**ACCEPT MULTIPLE RESPONSES, PROGRAMMER, LIST MODES FOR USE IN Q72b**)

FOR EACH MODE MENTIONED IN Q72a, ASK…
72b About how many days per week did you use <MODE FROM Q72a>?

IF SUM OF DAYS FROM Q72b NE Q5, ASK "And how did you commute on other days you were assigned to work?" **ACCEPT OPTION OF "didn't work, regular day off**."

IF Q12 = 1, 2, OR 3 AND RESPONDENT DOES NOT MENTION "CWS day off" (RESPONSE 1), ASK: "You said you typically work a compressed work schedule now. Did you work a compressed schedule at that time?"

IF Q14 = 4, 5, OR 6 AND RESPONDENT DOES NOT MENTION "Telecommute" (RESPONSE 2), ASK: "You said you typically telecommute one or more days per week now. Did you telecommute at that time?"

Mode/Day typically used per week		Number of days using mode				
1	compressed work schedule day off	1	2	3	4	5
2	telecommute	1	2	3	4	5
3	drive alone in your car, taxi	1	2	3	4	5
4	motorcycle	1	2	3	4	5
5	carpool, including carpool with family member, dropped off	1	2	3	4	5
6	casual carpool (slugging)	1	2	3	4	5
7	vanpool	1	2	3	4	5
8	buspool	1	2	3	4	5
9	bus	1	2	3	4	5
10	Metrorail	1	2	3	4	5
11	MARC	1	2	3	4	5
12	VRE	1	2	3	4	5
13	AMTRAK, other train	1	2	3	4	5
14	Bicycle (including Capital Bikeshare, CABI)	1	2	3	4	5
15	walk	1	2	3	4	5
16	didn't work, regular days off	1	2	3	4	5
17	N/A					
18	N/A					
19	Taxi	1	2	3	4	5
20	N/A					
21	not working then, not in DC area then					5
99	don't know, refused					5

AWARENESS OF COMMUTE PROGRAMS/SERVICES

Now I have a few questions about services that might be available to commuters in your home or work areas.

81 Is there a phone number or website you can use to obtain information on ridesharing, public transportation, HOV lanes, express lanes, and telecommuting in the Washington region?

1 Yes
2 No **(SKIP TO Q86)**
9 DK/Ref **(SKIP TO Q86)**

83 What is it? **(DON'T READ, ACCEPT MULTIPLES FOR 1-20, DO NOT ACCPET MULTIPLES WITH 99)**

1.	800-745-RIDE (7433)	Commuter Connections (COG)
2.	888-730-6664	PRTC, Potomac Rappahannock Transportation
3.	703-324-1111	Fairfax County RideSources
4.	301-770-POOL	Montgomery County Commuter Services
5.	240-777-RIDE	Montgomery County Commuter Services
6.	202-637-7000	WMATA, METRO (Washington Metro. Area Transit Authority)
7.	www.mwcog.org	Commuter Connections (COG)
8.	www.commuterconnections.org	Commuter Connections (COG)
9.	www.commuterconnections.com	Commuter Connections (COG)
10.	www.vre.org	Virginia Railway Express (VRE)
11.	www.commuterdirect.com	Arlington County Commuter Services
12.	www.commuterpage.com	Arlington County Commuter Services
13.	703-228-RIDE	Arlington County Commuter Services
14.	www.maryland.com	Maryland Mass Transit Admin. (MTA) MARC Commuter Rail
15.	www.wmata.com	WMATA, Metro
16.	www.HOVcalculator.com	VDOT
17.	www.commuterchoicemaryland.com	Maryland Mass Transit Admin (MTA)
18.	866-RIDE-MTA (1-800-743-3682)	Maryland Mass Transit Admin (MTA)
19.	www.metroopensdoors.org	WMATA, Metro
20.	Other (SPECIFY) _____	

99 Don't remember **(SKIP TO Q86)**

IF Q83 = ANY OF RESPONSES 1 – 20, ASK Q84, IN THE ORDER SHOWN BELOW
IF Q83 = ONLY 2, 3, 4, 5, 10, 11, 12, 13, 14, 16, 17, 18, 20, ASK Q84, INSERTING "this"
IF Q83 = 1, 7, 8 OR 9, Ask Q84, INSERTING "this Commuter Connections"
IF Q83 = 6, 15, OR 19, ASK Q84, INSERTING "this Metro"
IF Q83 = 1, 6, 7, 8, 9, 15, 19 AND ANY OTHER RESPONSE, ASK Q84 AGAIN, INSERTING "this other"

84 Have you used [this, this Commuter Connections, this Metro, this other] number or website in the past year? (**CHECK FOR ALL RESPONSES IN Q83**)

1 Yes
2 No
8 Don't know
9 Refuse

86 **IF Q83 = 1, 7, 8, OR 9, CODE Q86 = 1, THEN SKIP TO Q87**
IF Q20 = 38 OR 39, CODE Q86 = 1, THEN SKIP TO Q87
IF Q42 = 4 OR 7, CODE Q86 = 1, THEN SKIP TO Q87
IF Q43 = 1, CODE Q86 = 1, THEN SKIP TO Q87
IF Q62 = 5 OR 7, CODE Q86 = 1, THEN SKIP TO Q87
IF Q63 = 1, CODE Q86 = 1, THEN SKIP TO Q87
IF Q64 = 1, CODE Q86 = 1, THEN SKIP TO Q87

Have you heard of an organization in the Washington region called Commuter Connections?

1 yes
2 no (**SKIP TO Q88c**)
8 Don't know (**SKIP TO Q88c**)
9 Refuse (**SKIP TO Q88c**)

87 [**IF Q86 WAS AUTOCODED = 1, START Q87 WITH:** You mentioned knowing about Commuter Connections.]
How did you learn about Commuter Connections? (**DO NOT READ; ACCEPT MULTIPLE RESPONSES)**

1 TV
2 magazine
3 newspaper ad
4 newspaper article
5 sign/billboard
6 mail/postcard
7 brochure
8 transportation fair/special event
9 radio
10 employer
11 Library
12 phonebook, yellow pages
13 word of mouth (family, friend, co-worker)
14 internet/Web
15 InfoExpress kiosks
16 Ozone Action/Code Red days
17 Smart phone / tablet (text, email, ad)
18 Other _____
88 Don't know
99 Refuse

IF Q83 = 1, 7, 8, OR 9, AND Q84 = 1 FOR ANY OF THOSE PROGRAMS, AUTOCODE Q88a = 1, THEN SKIP TO Q88c.
IF Q20 = 38 OR 39, AUTOCODE Q88a = 1, THEN SKIP TO Q88c
IF Q42 = 4 OR 7, AUTOCODE Q88a = 1, THEN SKIP TO Q88c
IF Q43 = 1, AUTOCODE Q88a = 1, THEN SKIP TO Q88c
IF Q64 = 1, AUTOCODE Q88a = 1, THEN SKIP TO Q88c

88a Have you contacted Commuter Connections in the past year or visited a website sponsored by this organization?

1 Yes
2 No
8 Don't know
9 Refuse

Define Local Program for Q88c – Q88e

88c **SET ORGANIZATIONS TO ASK ABOUT IN Q88c-Q88e (DO NOT READ)**

IF Q2 = 1 OR Q3 = 1 (Alexandria), INSERT Alexandria LocalMotion as <PROGRAM> in Q88c – Q88e
IF Q2 = 2 OR Q3 = 3 (Arlington), INSERT Arlington County Commuter Services or The Commuter Store as <PROGRAM> in Q88c – Q88e
IF Q2 = 3 OR Q3 = 4 (Calvert), INSERT Tri-County Council for Southern Maryland as <PROGRAM> in Q88c – Q88e
IF Q2 = 4 OR Q3 = 5 (Charles), INSERT Tri-County Council for Southern Maryland as <PROGRAM> in Q88c – Q88e
IF Q2 = 6 OR Q3 = 7, 8, OR 9 (Fairfax Co, Ffx City, Falls Church), INSERT Fairfax County RideSources as <PROGRAM> in Q88c – Q88e
IF Q2 = 7 OR Q3 = 10 (Frederick), INSERT TransIT Services of Frederick County as <PROGRAM> in Q88c – Q88e
IF Q2 = 8 OR Q3 = 12 (Loudoun), INSERT Loudoun County Office of Transportation Services as <PROGRAM> in Q88c – Q88e
IF Q2 = 9 OR Q3 = 15 (Montgomery), INSERT Montgomery County Commuter Services, Bethesda Transportation Solutions, or North Bethesda Transportation Center as <PROGRAM> in Q88c – Q88e
IF Q2 = 10 OR Q3 = 16 (Prince Georges), INSERT Ride Smart as <PROGRAM> in Q88c – Q88e
IF Q2 = 11 OR Q3 = 13, 14, OR 17 (Prince William, Manassas, Manassas Park), INSERT PRTC OmniMatch as <PROGRAM> in Q88c-Q88e
IF Q2 = 5 OR Q3 = 6 (District of Columbia), INSERT goDCgo <PROGRAM> in Q88c-Q88e

1 Alexandria LocalMotion
2 Arlington County Commuter Services, The Commuter Store
3 Tri-County Council of Southern Maryland (Calvert, Charles)
4 Fairfax County RideSources
5 TransIT Services of Frederick County
6 Loudoun County Office of Transportation Services
7 Montgomery County Commuter Services, Bethesda Transportation Solutions, North Bethesda Transportation Center
8 Ride Smart (Prince Georges Commuter Solutions)
9 PRTC OmniMatch (Prince William)
10 goDCgo (District of Columbia)

88d Have you heard of an organization or service called <PROGRAM**>?**
IF YES AND Q88c = 2 OR 7, CLARIFY WHICH PROGRAM OR PROGRAMS ARE KNOWN. THEN CODE THAT/THOSE PROGRAMS IN 88d

1 Alexandria LocalMotion
2 Arlington County Commuter Services, The Commuter Store
3 Tri-County Council of Southern Maryland (Calvert, Charles)
4 Fairfax County RideSources
5 TransIT Services of Frederick County
6 Loudoun County Office of Transportation Services
7 Montgomery County Commuter Services, Bethesda Transportation Solutions, North Bethesda Transportation Center
8 Ride Smart (Prince Georges Commuter Solutions)
9 PRTC OmniMatch (Prince William)
10 goDCgo (District of Columbia)

88 Don't know **(SKIP TO Q88h)**
99 Refuse **(SKIP TO Q88h)**

ASK Q88e FOR ANY RESPONSE CODED YES IN Q88d

88e Have you contacted <**Q88d PROGRAM OR SERVICE**> in the past year or visited its website?

1 Alexandria LocalMotion
2 Arlington County Commuter Services, The Commuter Store
3 Tri-County Council of Southern Maryland (Calvert, Charles)
4 Fairfax County RideSources
5 TransIT Services of Frederick County
6 Loudoun County Office of Transportation Services
7 Montgomery County Commuter Services, Bethesda Transportation Solutions, North Bethesda Transportation Center
8 Ride Smart (Prince Georges Commuter Solutions)
9 PRTC OmniMatch (Prince William)
10 goDCgo (District of Columbia)

88 Don't know
99 Refuse

88h Now, I'd like your opinion on a new service that might be offered in the Washington area – that is, an instant carpool service that would make it easy for you to arrange to share a ride for a single trip on short notice. Registered members who want to share a ride would post a request to a Smart phone-accessible application. Other members would be notified of requests through email or texts and could respond for rides they are willing to share.

If a service like this was available in the region and drivers were paid $0.20 per mile when they provide a ride, how likely would you be to use it when you are the **driver**? Would you be …very likely, somewhat likely, or not likely to use it?

1 Very likely
2 Somewhat likely
3 Not likely
9 DK/Ref

88k How likely would you be to use it when you are a **rider or passenger**, if you had to **pay** $0.20 per mile? **REPEAT SCALE IF NECESSARY:** Would you be …very likely, somewhat likely, or not likely to use it?

1 Very likely
2 Somewhat likely
3 Not likely
9 DK/Ref

EMPLOYER SERVICES

IF HOMEALL SKIP TO Q113
IF TELEALL SKIP TO Q113

89 Next please tell me if your employer makes any of the following commute services or benefits available to you. How about…. ,? **ASK ABOUT EACH SERVICE. IF NECESSARY, ASK "**Does your employer make it available?

IF RESPONDENT SAYS HE/SHE IS THE OWNER OF THE COMPANY OR IS SELF-EMPLOYED, CODE ALL RESPONSES = 8, THEN SKIP TO Q102

Service	1 - Available	3 - Not available	8 – Owner/ Self-employed	9 - Don't know
1 Information on commuter transportation options				
2 Special parking spaces for carpools or vanpools				
3 SmarTrip, SmartBenefit or other subsidies for public transportation or vanpooling				
4 Cash payments or other subsidies for carpooling				
5 Facilities or programs for employees who bike or walk to work				
6 Guaranteed rides (GRH) home in case of emergencies or unscheduled overtime				
7 Carshare membership (Zipcar, Car2Go, Hertz On Demand)				
8 Bikeshare membership (Capital Bikeshare)				
9 Work schedule with flexible start and end times				

IF ANY Q89 SERVICES ARE CODED AS 1 (offered), ASK Q89a FOR THOSE SERVICES.

89a And which of those services have you used. Have you used…. ? And how about…? **ASK ABOUT EACH SERVICE THAT WAS CODED AS 1 (offered) in Q89. DO NOT ASK ABOUT SERVICES CODED AS 3, 8, OR 9.**

ASK ABOUT SERVICES CODED AS 1 (OFFERED)

Service	1 - Used	2 – Not used	3 - Not available	8 – Owner/ Self-employed	9 - Don't know
1 Information on commuter transportation options					
2 Special parking spaces for carpools or vanpools					
3 SmarTrip, SmartBenefit or other subsidies for public transportation or vanpooling					
4 Cash payments or other subsidies for carpooling					
5 Facilities or programs for employees who bike or walk to work					
6 Guaranteed rides (GRH) home					
7 Carshare membership					
8 Bikeshare membership					
9 Work schedule with flexible start and end times					

90 Does your employer make free on-site parking available to all employees at your worksite?

1 yes
2 no (**SKIP TO Q91**)
9 Don't know/Ref (**SKIP TO Q102**)

90a Have you used this free parking?

1 yes
2 no
9 DK/Ref

SKIP TO Q102

91 Does your employer pay part of your parking cost or do you have to pay the entire cost if you drive to work?

1 employer pays part/employee pays part
2 employee pays all
3 free offsite parking
9 DK/Ref

92 Does your employer offer parking discounts for carpools or vanpools?

1 yes
2 No (**SKIP TO Q102**)
9 Don't know/Ref (**SKIP TO Q102**)

92a Have you used this parking discount?

1 yes
2 no
9 DK/Ref

GUARANTEED RIDE HOME

102 Do you know if there is a regional GRH or Guaranteed Ride Home program available in the event of unexpected emergencies and unscheduled overtime for commuters who rideshare or use public transportation?

1 yes, there is
2 no, there isn't (**SKIP TO Q113**)
9 DK/Ref (**SKIP TO Q113**)

104 Who sponsored or offered the service? (**DO NOT READ**)

1 Commuter Connections/Council of Governments/COG
2 Employer
3 VRE
4 TMA (TyTran)
5 Other _____
9 Don't know/Refuse

DEMOGRAPHICS

My last few questions are for classification purposes only.

113 In total, how many motor vehicles, in working condition, including automobiles, trucks, vans, and highway motorcycles are owned or leased by members of your household? _____

114 How many persons live in your home? Please count yourself, family and friends, and anyone who may be unrelated to you such as live-in housekeepers or boarders.

_____ persons

88 Don't know
99 Refuse

IF Q114 = 88 OR 99 AND RESPONDENT IS IN CELL SAMPLE, SKIP TO Q115
IF Q114 = 88 OR 99 AND RESPONDENT IS IN LANDLINE SAMPLE, SKIP TO Q115a

IF Q114 = 1 AND RESPONDENT IS IN CELL SAMPLE, AUTOCODE Q114a = 1 AND AUTOCODE Q114b = 1, THEN SKIP TO Q115
IF Q114 = 1 AND RESPONDENT IS IN LANDLINE SAMPLE, AUTOCODE Q114a = 1 AND AUTOCODE Q114b = 1, THEN SKIP TO Q115a

IF Q114 > 1, ASK Q114a AND Q114b

114a And, including yourself, how many of these household members are 18 or older?
_____ household members
888 Don't know
999 Refuse

114b How many of the persons age 18 or over, including yourself, are employed either full-time or part-time?

_____ persons

88 Don't know
99 Refuse

IF RESPONDENT IS IN CELLPHONE SAMPLE, CONTINE TO Q115
IF RESPONDENT IS IN LANDLINE SAMPLE, SKIP TO Q115a

115 Is your cell phone your only phone or do you also have a regular landline telephone at home?

1 Cell is only phone **(SKIP TO115b)**
2 Has regular landline phone at home **(CONTINUE)**
9 DK/Refused **(SKIP TO 115b)**

115a *Not including cell phones, how many different landline **telephone numbers** (not phone handsets) are there in your home? Please don't count any numbers that are always connected to a fax machine or computer modem or that are only used for business.*

# of landline phone numbers_____

115b How many members of your household have cell phones?

# of cell phones in the household_____

121 Which of the following groups includes your age? (**READ CHOICES 2 – 7 ONLY. CODE RESPONSE 1 IF VOLUNTEERED BY RESPONDENT**))

1 under 18
2 18 - 24
3 25 - 34
4 35 - 44
5 45 - 54
6 55 - 64
7 65 or older
9 Refused (**DON'T READ)**

122 Do you consider yourself to be any of the following: Latino, Hispanic, or Spanish?

1 Yes
2 No
9 DK/Ref.

123 Now I want to ask you about your race. Which one of the following best describes your racial background. Is it . . . (**READ CHOICES 1-5; SELECT ONE RESPONE ONLY**)

1 White
2 Black or African-American
3 American Indian or Alaska Native
4 Asian
5 Native Hawaiian or Other Pacific Islander
6 Other (SPECIFY) _____
9 Refused

Instructions before Q118
IF TELEALL OR HOMEALL SKIP TO Q119

118 About how many employees work at your worksite? Is it . . . (**READ CHOICES**)

1 1 – 25
2 26-50
3 51-100
4 101-250
5 251-999
6 1,000 or more
9 DK/Ref.

119 What is your occupation? _____

IF HOMEALL, AUTOCODE Q120 = 5, AUTOCODE Q120a = Q1a, THEN SKIP TO Q124

120 What type of employer do you work for? Is your employer a federal agency, a state or local government agency, a non-profit organization or association, a private employer, or are you self-employed?

1 federal agency
2 state, or local government agency
3 non-profit organization/association
4 private sector employer
5 self-employed
6 other (SPECIFY) _____
9 DK/Ref.

120a What is your zip code at work? _____

124 Last, is your household's total annual income $100,000 or more?.

1 No, less than $100,000 **(ASK Q124a)**
2 Yes, $100,000 or more **(SKIP TO Q124b)**
9 Refused (**DON'T READ**) **(SKIP TO INSTRUCTIONS BEFORE Q124c)**

124a Please stop me when I reach the category that best represents your household's total annual income. Is it . . . (**READ CHOICES**)

1 less than $20,000
3 $20,000 - $29,999
4 $30,000 - $39,999
5 $40,000 - $59,999
6 $60,000 - $79,999
7 $80,000 - $99,999
9 Refused (**DON'T READ**)

SKIP TO Q125

124b Please stop me when I reach the category that best represents your household's total annual income. Is it . . . (**READ CHOICES**)

1 $100,000 - $119,999
2 $120,000 - $139,999
3 $140,000 - $159,999
4 $160,000 - $179,999
5 $180,000 - $199,999
6 $200,000 to $249,000
7 $250,000 or more
9 Refused (**DON'T READ**)

INSTRUCTIONS BEFORE Q124c
IF INTERVIEW COMPLETED BY LANDLINE PHONE, THANK AND SKIP TO Q125

If interview completed by cell phone, ASK Q124c:

124c Thank you very much for your time and cooperation. May I take down your email address, so I can send you a $5 Amazon Gift Card?

_____ [VERIFY BY REPEATING THE EXACT ADDRESS TO RESPONDENTS]

Once again, thank you very much?

If interview completed by landline:

Thank you very much for your time and cooperation!

Q125 (**RECORD SEX**:) 1 male 2 female

(**RECORD LANGUAGE OF INTERVIEW**:) 1 English 2 Spanish

(**RECORD PHONE OF INTERVIEW**:) 1 Landline 2 Cell phone

APPENDIX D
INSTRUCTIONS AND DEFINITIONS OF TERMS

Mode Questions/Grid:

Day off/compressed work schedule. This is a non-standard or flexible (flex) schedule:
4/40 (4 10-hour days per week for a total of 40 hours)
9/80 (9 days every 2 weeks for a total of 80 hours)
3/36 (3 12-hour days per week for a total of 36 hours per week, usually worked by police, firemen, hospital employees, etc.
flex-hours (core hours with flexible start & stop times)

Telecommuting. You telework or telecommute if you work at your home, telework center, or satellite office other than your normal worksite, during your regular work time. Either formal or informal.

Drive Alone. ***Does not include Taxi.*** You drive alone if you travel from your home to work by driving your car, truck, without a passenger.

Motorcycle. Includes moped or scooter. This is broken out separately from Drive Alone.

Carpool. You carpool if you arrive at your worksite by automobile, truck or van with 2 to 6 occupants. The carpool has a regular arrangement between the occupants. May also include occupants that are being dropped off at other worksites or companies. And may include family members.

Casual carpooling (slugging). Casual carpools are carpools that are formed on a day-to-day basis to take advantage of HOV lanes. They are most popular for commuters coming from Virginia to downtown Washington. People who want rides park at a few well-established but unofficial parking areas in VA and line up to wait for drivers. People who want riders cruise by that location and pick up as many as the car will hold. There are pick-up locations in Washington for the evening trip as well, but drivers and riders do not generally carpool home together.

Vanpool. 7-15 occupants commuting to and from work by automobile. May also include occupants that are being dropped off at other worksites or companies.

Buspool. A buspool is a large vanpool - generally 16+ people regularly riding together. It differs from a bus in that the riders "subscribe" or sign up to ride and have a reserved seat.

Rode a bus. You are a bus commuter if you ride a local, public or commuter bus (Metrobus, ART-Arlington Transit, The Bus, Ride-On, Fairfax Connector, Fairfax CUE, Loudon County Commuter Bus Service, PRTC OmniRide, OmniLink, DASH or any other public bus).

Metrorail. The Washington, DC, northern Virginia and Maryland subway, also known as Metro, that is operated by the Washington Metropolitan Area Transit Authority (WMATA). It's mostly underground, but does also run above ground in some areas. The lines are known by color, Red, Blue, Orange, Green and Yellow Lines.

MARC (MD Commuter Rail). MARC Train Service is a commuter rail system whose service areas include Harford County, Maryland; Baltimore City; Washington D.C.; Brunswick, Maryland; Frederick, Maryland and Martinsburg, West Virginia. MARC Train Service operates Monday through Friday only.

VRE (Virginia Railway Express). The VRE provides commuter rail service from the Northern Virginia suburbs to Alexandria, Crystal City and downtown Washington, D.C., along the I-66 and I-95 corridors. Services began in 1992.

Amtrak/ other train. Just like the Amtrak train here.

Bicycle. Includes rental bike services such as Capital Bikeshare and CABI. Non-motorized.

Taxi. Should include dropped off by taxi or other "livery" service, if the passenger is the only passenger.

Other Terms Used:

Carshare, Zip car, Car2Go, Hertz on Demand. Programs for very short term car rental.

GRH Guaranteed Ride Home (otherwise known as GRH) provides commuters who regularly carpool, vanpool, bike, walk or take transit to work with a reliable ride home when one of life's unexpected emergencies arises. Commuters will be able to use GRH to get home for unexpected personal emergencies and unscheduled overtime up to FOUR times per year.

Flexible work schedule/"Flex-time". Employees select their own starting and finishing times within a set daily period of time, e.g., between 7am and 7pm, to make up the hours they need to work daily. Flex-time is generally not available to staff who are required to work shifts.

HOT lane. "high occupancy tolls" where single occupancy vehicles can pay to use the HOV lanes.

HOV lane. "high occupancy vehicle" lane/ carpool lane/ diamond lane/ express lane.

InfoExpress Kiosks offered a regional network of information and services for area commuters. InfoExpress kiosks were equipped with touch screen monitors & easy to use interface. Even though the kiosks were removed from the Washington, DC area in January 2008, a respondent may remember using one.

Inter-County Connector (ICC). A construction project linking central and eastern Montgomery County and northwestern Prince George's County with a state-of-the-art, multi-modal east-west highway that limits access and accommodates the movement of passengers and goods.

Miles traveled in Q17. Distance from home to work not including side trips, unless they are regular stops (e.g., dropping off a child at day care).

Ozone Action Days / Code Red Days. An alert system where the National Weather Service (NWS) and/or Washington Metropolitan Council of Governments (MWCOG) issues a forecast for high ozone and heat.

SmarTrip and SmartBenefits are a tax-free commute benefit that companies can offer to employees in the Washington metropolitan area. SmarTrip is a permanent, rechargeable fare card and is embedded with a special computer chip that keeps track of the value of the card. Instead of receiving transit benefits as paper Metrochek cards, the benefit is loaded to the SmarTrip account. SmartBenefits replace the old Metrochek program and are claimed electronically each month.

Teleworking. Also known as telecommuting, means using information technology and telecommunications to replace work-related travel. Simply put, it means working at home or closer to home. With teleworking, employees work at home or perhaps at a local *telework center* one or more days per week.

Telework Centers. Federally funded facilities located around the Washington area that allow government and non-government employees to work closer to home some or all of the time.

Virginia MegaProjects, Dulles rail extension. A series of large-scale transportation improvements designed to ease congestion and provide better travel choices in Northern Virginia.

Way to Go, Way to Go Arlington, Car Free Diet. Arlington, Virginia's project to leave your car at home – choosing instead to ride transit, bike, walk or telework – you can save money, improve your health and clean our environment.

2013 State of Commute

Purpose of survey:

The State of the Commute Survey is conducted every three years in the Washington Metropolitan area on behalf of the Washington Metropolitan Council of Governments. The purpose of the study is to provide an updated view of commuting in the Washington D.C. area for transportation policymakers from Washington D.C., Maryland and Virginia.

The study responses will be expanded to represent the commute patterns for employed households within the eleven jurisdictions of the study area. The results will be used to measure current commute patterns and program effectiveness, as well as commuter awareness and attitudes.

Contact person:

Mr. Nicholas W. Ramfos, Chief of Alternative Commute Programs
Metropolitan Washington Council of Governments (COG)
Commuter Connections
777 North Capitol Street NE, Suite 300
Washington DC 20002
202-962-3200

How we got your number:

When trying to reach households in the Metropolitan Washington, D.C. area and the surrounding region, we start with your area code and the 3-digit prefix that begins your phone number. Then, a computer randomly selects the last 4 digits to make up a 7-digit phone number. We have no name or address, nor will we ask for one. We are just trying to gather information from households in your area.

Why did you contact my cell phone?

More than one-in-four Americans have only a cell phone, and do not have landline telephone service. We want to make sure that our survey is not bias towards groups that have landlines, in other words, we want to be sure to include the opinions of the whole working population in our transportation study.

You work for:

CIC Research, Inc.
San Diego, CA
(800) 892-2250 or (858) 637-4000
Supervisors: Dave Harper, Susan Landfield, and Scott Evans

APPENDIX E – COMPARISON OF KEY SOC RESULTS 2013, 2010, 2007, 2004, AND 2001

Current Travel Information

- **Current mode split** – Percentage of weekly commute trips (including CWS and TW days)

	2013	2010	2007	2004	2001
DA/Motorcycle	65.8%	64.2%	66.9%	71.4%	71.0%
Carpool	6.5%	7.0%	6.9%	5.6%	6.9%
Vanpool	0.2%	0.1%	0.2%	0.3%	0.5%
Bus	4.7%	5.7%	4.9%	4.4%	4.6%
Metrorail	11.6%	13.5%	12.0%	11.5%	11.7%
Commuter Rail	1.0%	1.0%	0.8%	0.9%	0.7%
Bike/walk	2.2%	2.3%	2.6%	2.2%	2.3%
Compressed work schedule	1.0%	0.6%	0.6%	0.7%	0.9%
Telework	7.0%	5.7%	5.1%	2.3%	1.4%

- **Regular mode use** – Percentages of weekly "on the road" commuter trips (without TC/CWS)

	2013	2010	2007	2004	2001
DA/Motorcycle	71.5%	68.4%	71.0%	74.1%	72.6%
CP/VP	7.3%	7.5%	7.6%	6.1%	7.6%
Bus	5.1%	6.0%	5.2%	4.7%	4.6%
Train	13.7%	15.5%	13.5%	12.8%	12.7%
Bike/walk	2.4%	2.5%	2.7%	2.3%	2.4%

- **Average length of commute**

	2013	2010	2007	2004	2001
Distance	16.0 mi	16.3 mi	16.3 mi	16.2 mi	15.5 mi
Time	36 min	36 min	35 min	34 min	32 min

- **Work Non-standard/compressed schedules**

	2013	2010	2007	2004	2001
No	93%	94%	96%	95%	95%
Yes	7%	6%	4%	5%	28%
4/40 compressed schedule	3%	2%	1%	2%	3%
9/80 compressed schedule	3%	4%	3%	3%	2%
Other compressed schedule	1%				

- **Length of time using current alternative modes** – regional commuters who currently use alternative modes

	2013	2010	2007	2004	2001
1 – 11 months		18%	17%	23%	28%
12 – 24 months		11%	21%	23%	23%
25 – 36 months		11%	10%	9%	
37 – 60 months		13%	13%	12%	49%
More than 60 months		47%	39%	33%	
Average duration (months)		**83**	**80**	**70**	**N/A**

- **Carpool/Vanpool occupancy**

	2013	2010	2007	2004	2001
Carpool/slug	2.4	2.5	2.5	2.6	2.6
Vanpool	10.8	7.6	9.9	10.0	11.4

- **Access mode to rideshare/transit modes**

	2013	2010	2007	2004	2001
Picked-up at home	16%	10%	12%	15%	16%
Drive to driver's home	10%	10%	10%	11%	11%
Drive to central location	19%	18%	18%	18%	14%
Another pool/dropped off	2%	3%	1%	1%	1%
Walk	34%	35%	35%	39%	39%
Drive CP/VP	6%	11%	10%	6%	9%
Bus/transit	13%	12%	12%	9%	10%
Average access distance (mi)	**2.9 mi**	2.6 mi	3.1 mi	3.1 mi	2.6 mi

- **Reasons for using alt modes** – regional commuters who currently use alternative modes.

	2013	2010	2007	2004	2001
Changed jobs	18%	15%	18%	16%	5%
Save money	16%	18%	18%	14%	21%
Save time	12%	10%	13%	18%	20%
No parking / parking expense	6%	4%	9%	3%	4%
No vehicle available	11%	10%	8%	11%	19%
Moved residence	10%	7%	8%	9%	3%
Avoid congestion	5%	4%	5%	7%	8%
Convenient / close to work	5%	8%	4%	1%	4%
Gas prices too high	3%	0%	4%	0%	0%
Tired of driving	2%	5%	4%	6%	8%

- **Switching among modes** – Modes used previously by commuters who use alternative modes now. Not all shifts to alt modes are from drive alone. Some shifting occurs from one alt mode to another

	2013	2010	2007	2004
Not in Washington area then	12%	13%	15%	17%
Always used this mode	19%	7%	23%	12%
Made a change from another mode	69%	80%	62%	71%
Previous modes used (respondents who shifted from another mode)				
Drive alone	49%	55%	55%	56%
Train	22%	23%	20%	12%
Bus	14%	14%	15%	15%
Carpool/Vanpool	9%	4%	10%	10%
Bike/walk	6%	6%	6%	8%

Telework

- **Telework incidence in region** – all commuters (workers who are not self-employed and working only at home)

	2013	2010	2007	2004	2001
% regional workers who telework	26.5%	25.0%	18.7%	12.8%	11.3%
Home-based teleworkers	99%	97%	95%	95%	98%

- **Employer telework programs –** all regional commuters + FT teleworkers

	2013	2010	2007	2004	2001
Employers with formal program	30%	29%	19%	15%	N/A
Employers with informal TW	21%	25%	22%	20%	N/A

- **Potential for additional regional telework –** regional commuters who do not telework

	2013	2010	2007	2004	2001
Non-TW (percent of commuters)	73%	75%	81%	87%	89%
Job tasks allow TW ("could TWC")	29%	30%	30%	25%	31%
Interested in TW ("could and would TW")	18%	21%	24%	19%	21%

- **Telework frequency** – current teleworkers

	2013	2010	2007	2004	2001
Occasionally/special projects	8%	10%	10%	10%	17%
< once per month/emergency	9%	12%	8%	12%	12%
1 – 3 times per month	26%	30%	26%	32%	28%
1 day per week	25%	19%	18%	15%	16%
2 days per week	11%	12%	16%	12%	9%
3 or more times per week	21%	17%	22%	19%	16%
Mean (days per week)	**1.4**	**1.3**	**1.5**	**1.3**	**1.1**

- **Length of time teleworking** – current teleworkers

	2013	2010	2007	2004	2001
Less than one year	14%	16%	14%	22%	23%
One to two years	27%	22%	29%	27%	29%
More than two years	59%	62%	58%	51%	48%

- **How learned about telework** – current teleworkers

	2013	2010	2007	2004	2001
Program at work/employer	73%	71%	55%	56%	34%
Word of mouth	7%	5%	13%	18%	18%
Initiated request on my own	17%	15%	23%	16%	26%
Commuter Connections/COG	**10%**	**6%**	**7%**	**5%**	**6%**
Advertising	0%	0%	2%	3%	6%

Awareness/Attitudes Toward Transportation Options

- **HOV lane availability and use** – all regional commuters

	2013	2010	2007	2004	2001
Commuters with lane on route to work	29%	30%	29%	29%	27%
Use lanes	34%	27%	27%	8%	7%
Ave time saving – one way trip (min)	24 min	23 min	21 min	25 min	22 min

- **Park & Ride availability and use** – all regional commuters

	2013	2010	2007	2004	2001
Know locations of P&R lots	38%	45%	38%	40%	42%
Used P&R in past year	7%	9%	7%	7%	7%

- **Reasons for not riding bus or train** – regional commuters who don't currently use bus or train)

	2013	2010
No train service, don't know service	69%	
No bus service, don't know service	49%	31%
Trips takes too much time	20%	32%
Need car for work	7%	11%
Trip too long – distance too far	6%	8%
Trip too long – distance too far	6%	8%
Work schedule irregular	5%	10%
Need car before or after work	5%	9%
Bus unreliable/late	4%	3%
Too expensive	4%	5%
Don't like riding with strangers, Prefer to be alone	2%	4%

- **Reasons for not riding bus** – regional commuters who don't currently use bus (note that in 2010, one question was asked about reasons for not using transit)

	2013	2010	2007	2004	2001
Trips takes too much time	N/A	N/A	31%	32%	27%
Need car for work	N/A	N/A	16%	15%	19%
No bus service, don't know service	N/A	N/A	19%	16%	21%
Work schedule irregular	N/A	N/A	8%	8%	7%
Trip too long – distance too far	N/A	N/A	10%	7%	7%
Bus unreliable/late	N/A	N/A	5%	5%	5%
Need car before or after work	N/A	N/A	9%	5%	6%
Don't like riding with strangers, Prefer to be alone	N/A	N/A	6%	4%	3%
Too expensive	N/A	N/A	0%	0%	0%

- **Reasons for not riding train** – regional commuters who don't currently use train (note that in 2010, one question was asked about reasons for not using transit)

	2013	2010	2007	2004	2001
No train service, don't know service	N/A	N/A	30%	38%	43%
Trips takes too much time	N/A	N/A	22%	21%	16%
Need car for work	N/A	N/A	16%	14%	18%
Trip too long – distance too far	N/A	N/A	6%	6%	5%
Work schedule irregular	N/A	N/A	7%	5%	5%
Need car before or after work	N/A	N/A	8%	4%	4%
Don't like riding with strangers, Prefer to be alone	N/A	N/A	5%	2%	2%
Too expensive	N/A	N/A	4%	4%	5%

- **Reasons for not carpooling/vanpooling** – regional commuters who don't currently CP or VP

	2013	2010	2007	2004	2001
Don't know anyone to CP/VP with	47%	45%	48%	47%	48%
Work schedule irregular	23%	28%	18%	20%	18%
Need car for work	8%	10%	9%	12%	12%
Need car before or after work	7%	11%	11%	7%	7%
Takes too much time	5%	5%	5%	4%	4%
Doesn't save time	3%	2%	5%	5%	4%
Don't like riding with strangers, Prefer to be alone	4%	6%	4%	4%	4%

- **Commute easier, more difficult, or same as one year ago** – all regional commuters

	2013	2010	2007	2004	2001
Easier	17%	12%	14%	14%	N/A
More difficult	23%	25%	27%	29%	N/A
About the same	59%	62%	57%	54%	N/A

- **Satisfied with trip to work** – all regional commuters

	2013	2010	2007	2004	2001
Rating of 1 – not at all satisfied	6%	7%	N/A	N/A	N/A
Rating of 2	10%	9%	N/A	N/A	N/A
Rating of 3	20%	22%	N/A	N/A	N/A
Rating of 4	28%	24%	N/A	N/A	N/A
Rating of 5 – very satisfied	36%	38%	N/A	N/A	N/A

Advertising/Messages

- **Heard, seen, or read commute advertising in past 6 months** – all respondents (includes both commuters and respondents who work at home/telework from home full-time)

	2013	2010	2007	2004	2001
Yes	55%	58%	51%	55%	55%
Ad messages recalled					
Use bus/train, Metro	15%	14%	18%	7%	7%
You can call for CP/VP info	8%	11%	14%	17%	9%
New buses/trains coming	7%	6%	7%	7%	4%
GRH	5%	9%	6%	12%	3%
It would help the environment	3%	6%	5%	2%	4%
It reduces traffic	3%	4%	5%	3%	5%
Call CC, CC web site	4%	4%	4%	6%	5%
Telecommuting	2%	2%	3%	3%	2%
It saves money	2%	5%	3%	<1%	<1%
It saves time	2%	2%	3%	2%	10%
HOV lanes	0%	3%	3%	2%	12%

- **Attitudes/actions after hearing/seeing commute ads** (respondents who remembered ads)

	2013	2010	2007	2004	2001
More likely to consider RS/transit	25%	24%	18%	18%	28%
Took actions to change commute	3%	4%	<1%	2%	N/A
Advertising encouraged action taken (of respondents who took action)	84%	83%	67%	68%	N/A
Actions taken					
Sought commute info (internet, family, commute organization, other source)	2%	2%	0.7%	1.6%	N/A
Tried alt mode	1%	<1%	< 0.1%	0.2%	N/A

- **Awareness and use of regional commute info phone/web site** – all respondents

	2013	2010	2007	2004	2001
Know regional number/web site	62%	66%	51%	46%	33%
Named CC as source (unprompted)	3%	2%	2%	6%	5%
Used CC number/web site in past year			3%	1%	N/A

- **Know of CC** (prompted or unprompted) – all respondents

	2013	2010	2007	2004	2001
Yes – unprompted	3%	2%	2%	6%	5%
Yes – prompted	62%	62%	53%	66%	N/A
CC services recalled (respondents aware of CC)					
GRH	N/A	26%	19%	40%	N/A
CP/VP, ridematch info	N/A	30%	24%	28%	N/A
Help finding CP/VP partners	N/A	30%	22%	16%	N/A
Transit information	N/A	9%	6%	5%	N/A
Telecommute info	N/A	0%	1%	2%	N/A

Employer Services

- **Employer offers parking services** – all non-self-employed commuters

	2013	2010	2007	2004	2001
Free on-site parking	63%	63%	65%	66%	65%
Free off-site parking	2%	2%	4%	3%	3%
Employee pays full parking charge	23%	22%	21%	21%	23%
Employer pays part of parking charge	7%	7%	7%	6%	6%
CP/VP parking discount when parking is not free	14%	16%	15%	14%	14%

- **Employer offers TDM services** – all non-self-employed commuters

	2013	2010	2007	2004	2001
Discount/free transit pass	38%	45%	33%	31%	29%
Information on commute options	28%	26%	20%	22%	25%
Preferential parking for CPVP	21%	21%	16%	16%	19%
Bike/ped facilities or services	24%	24%	17%	14%	9%
GRH	13%	14%	12%	12%	19%
CP financial incentive	7%	7%	5%	4%	7%
None – employer doesn't offer any	43%	39%	46%	47%	49%

- **Respondent used TDM services** (respondents who have access to services)*

	2013	2010	2007	2004	2001
Discount/free transit pass	57%	54%	41%	41%	31%
Information on commute options	34%	33%	46%	45%	3%
Preferential parking for CPVP	18%	18%	20%	20%	2%
Bike/ped facilities or services	19%	18%	12%	16%	3%
GRH	20%	26%	25%	25%	18%
CP financial incentive	18%	16%	15%	18%	3%

* Note that since 2004, this series of questions has been asked differently than in 2001. In 2001, respondents were asked if the employer offered each of the services listed above, then were asked a general question to name any services they had used. Since 2004, respondents were asked a two-question series about each service: did the employer offer it and, if it was offered, did the respondent use that service. It is likely that the 2001 approach could have resulted in lower recall of use for some services, compared with later years, due to the single, non-service specific, question about service use.

Demographics

- **States of Residence and Employment** – all respondents

Residence	2013	2010	2007	2004	2001
District of Columbia	12%	12%	12%	11%	12%
Maryland	44%	44%	45%	45%	48%
Virginia	44%	44%	43%	44%	41%

Employment	2013	2010	2007	2004	2001
District of Columbia	31%	34%	30%	29%	30%
Maryland	29%	27%	32%	32%	32%
Virginia	37%	37%	36%	37%	34%
Other/Ref	3%	2%	2%	2%	4%

- **Employer type** – all respondents

	2013	2010	2007	2004	2001
Federal agency	22%	24%	20%	22%	20%
State/local government	12%	12%	12%	13%	14%
Non-profit organization	12%	13%	11%	10%	10%
Private sector	43%	41%	47%	49%	50%
Self-employed	11%	10%	10%	7%	7%

- **Employer size** – all respondents

	2013	2010	2007	2004	2001
1 – 25 employees	27%	25%	26%	25%	30%
26 – 50 employees	10%	8%	10%	12%	12%
51 – 100 employees	11%	11%	12%	12%	11%
101 – 250 employees	13%	13%	13%	13%	12%
251 – 999 employees	14%	16%	15%	15%	14%
1,000 employees	25%	27%	24%	25%	22%

- **Age** – all respondents

	2013	2010	2007	2004	2001
Under 24	5%	4%	4%	7%	10%
25 – 34	12%	13%	16%	21%	23%
35 – 44	22%	24%	28%	28%	29%
45 – 54	31%	31%	30%	27%	25%
55 – 64	23%	22%	18%	14%	10%
65 or older	7%	6%	4%	3%	3%

- **Gender** – all respondents

	2013	2010	2007	2004	2001
Female	555	56%	54%	55%	54%
Male	45%	44%	46%	45%	46%

- **Income** – all respondents

	2013	2010	2007	2004	2001
Under $20,000	2%	2%	2%	2%	3%
$20,000 – $29,999	3%	2%	4%	4%	6%
$30,000 – $39,999	3%	4%	5%	8%	9%
$40,000 – $59,999	9%	9%	12%	14%	18%
$60,000 – $79,999	11%	10%	14%	17%	19%
$80,000 – $99,999	8%	9%	15%	16%	15%
$100,000 – $119,999	15%	15%	14%	14%	
$120,000 – $139,999	12%	12%	9%	7%	30%
$140,000 – $159,999	11%	10%	7%	5%	
$160,000 – $179,999	7%	7%	18%	13%	
$180,000 – $199,999	8%	5%			
$200,000 or more	11%	15%			

- **Ethnic/Racial background** – all respondents

	2013	2010	2007	2004	2001
Hispanic/Latino	13%	11%	9%	6%	6%
White	50%	53%	62%	64%	61%
Black/African-American	25%	23%	22%	23%	23%
Asian	10%	10%	4%	5%	5%
Other/Mixed	2%	3%	3%	2%	5%**p**