COMMUTER CONNECTIONS
2013 STATE OF THE COMMUTE SURVEY

Summary Results for Arlington County, VA

Respondents Who Lived in Arlington County
Respondents Who Worked in Arlington County

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EXECUTIVE SUMMARY

Overview
In 2013, the Commuter Connections program of the Metropolitan Washington Council of Governments (MWCOG) conducted a regional State of the Commute (SOC) Survey, a random-sample telephone survey of employed persons living in the 11-jurisdiction Washington metropolitan region. The survey documented commuting behavior, such as commute mode shares and distance traveled, and prevalent attitudes about specific transportation services, such as public transportation, which are available to commuters in the region. The surveys also asked commuters about sources of information on alternative modes, their reasons for choosing alternative modes for commuting, and their awareness and use of commute assistance services that might influence commuting behavior.

One of the jurisdictions covered by the survey was Arlington County, Virginia and the Arlington residents who participated in the survey are the primary focus of this survey analysis. But because the survey also collected data on respondents’ work location, the report presents results for respondents who worked in Arlington, regardless of their home location.

The 2013 SOC survey interviewed at least 575 residents in each jurisdiction. The total sample included interviews with 576 Arlington residents, slightly above the 575 minimum quota, and interviews with 474 respondents who worked in Arlington County. These two data sub-sets overlapped for 194 respondents who both worked and lived in the County. The sample sizes and statistical confidence levels for the populations of Arlington residents (Lived in Arlington) and Arlington workers (Worked in Arlington) were 95% ± 4.1% and 95% ± 4.5% respectively.

COG had conducted SOC surveys in previous years also, on a triennial schedule. When possible and informative, comparisons are shown in this report between the 2013 SOC data and data from surveys conducted in 2010, 2007, and 2004.

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

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

Commute Patterns
Both Arlington residents and commuters who worked in Arlington drove alone to work much less than did all regional commuters and made many more commute trips by transit. Arlington residents and Arlington workers also drove alone less than did residents and workers in neighboring jurisdictions, with the exception of the District of Columbia.

- Arlington residents showed substantially different commute choices than did respondents region-wide. The drive alone share was only 53%, significantly below the 66% rate for all regional employees. Arlington residents’ transit use was well above the regional average; they rode a bus or train for 26% of their weekly commute trips, compared with 18% of trips made by all regional workers. The share of trips made by bike/walk also was considerably higher for Arlington residents (7%) than for the region as a whole (2%).
• The commute mode pattern for respondents who worked in Arlington was very similar to that for Arlington residents. Arlington workers made fewer work trips by driving alone (54%) than did all regional workers and made more trips by transit (26%).

• Only the District of Columbia had a lower resident drive alone rate (38%) than Arlington’s. But Arlington residents’ drive alone rate was lower than the rate for Alexandria residents (62%), the third jurisdiction in the urban core and much lower than the rate for Fairfax County, its neighbor to the west. Arlington residents used transit and bike/walk at slightly higher rates than did residents of Alexandria and much more than did Fairfax residents.

• The pattern was similar for commuters who worked in Arlington. Arlington workers drove alone for more of their weekly trips (54%) than did District of Columbia workers (41%). But commuters who worked in Alexandria and Fairfax drove alone for many more of their trips, 78% and 79%, respectively. Arlington’s lower drive alone rate compared to these neighbors was primarily due to its much higher transit mode share, but Arlington workers met or exceeded use of all alternative modes, when compared with these neighbors.

• The drive-alone percentage for Arlington residents has remained approximately at the same level since 2004. Use of bike/walk and telework increased between 2004 and 2013, but transit use declined over that time period, from 31% of weekly trips in 2004 and 2007 to 27% of trips in 2010 and 26% of trips in 2013.

• The drive alone rate for Arlington workers did not change significantly from 2004 to 2007, but dropped substantially from 60% in 2007 to 55% in 2010, then remained stable at 54% in 2013. Train use increased correspondingly for Arlington workers from 21% in 2004 to 27% in 2010 and 26% in 2013.

• Respondents who lived in Arlington showed no significant differences in choice of primary commute mode among various demographic groups. But Arlington residents who worked in the District of Columbia were substantially less likely to drive alone and more likely to ride a train to work than were those who worked in Virginia or Maryland.

Many commuters were long-time users of their mode, but commuters continued to shift to alternative modes.

• Arlington residents who used alternative modes to commute had used these modes an average of 86 months. Arlington workers who used alternative modes had used them a slightly shorter time, 72 months, on average. But more than half of both Arlington residents and Arlington workers started using their current alternative modes within the past five years and 17% off Arlington residents and 16% of respondents who worked in Arlington shifted to their current alternative mode less than one year ago.

• About three in ten (31%) Arlington residents who started using an alternative mode within the past three years said they previously drove alone. The percentages of shifts from driving alone were higher among respondents who worked in Arlington (37%) and respondents region-wide (39%).

• Arlington commuters who used alternative modes did so primarily to save money, save time, because they changed jobs or work hours, moved to a new residence, or because they did not have a vehicle available for commuting. One in ten Arlington residents said they used alternative modes because they didn’t have parking or had to pay a parking charge at work. Arlington workers were less likely to mention an issue with parking at work and not having a vehicle available, but more likely to say they started using an alternative mode because their employer offered a financial incentive.
More than half of Arlington residents who used alternative modes walked to the meeting point, allowing them to avoid personal vehicle use entirely for their commute.

- Nearly six in ten (39%) Arlington residents who commuted by transit or carpool/vanpool walked or bicycled to the alternative mode meeting spot (park & ride lot, train station, carpool driver’s home, etc.). Another one-third rode transit, were dropped off, or were picked up at home by a carpool partners. Only 5% percent drove alone and left their cars at those places. By comparison, 29% of all regional alternative mode commuters and 33% of Arlington workers drove to the meeting point.

Commute distances for Arlington residents were much shorter than for all regional commuters. Commuters who worked in Arlington traveled distances that were much closer to the regional average.

- Commuters who lived in Arlington traveled an average of 8.4 miles one-way, well below the regional average of 16.0 miles. Seven in ten traveled fewer than 10 miles. By contrast, commuters who worked in Arlington traveled 14.7 miles one-way, much closer to the regional average distance.

- The 28-minute travel time for commuters who lived in Arlington was less than the regional average of 36 minutes, but not proportionately shorter considering the differences in commute miles. This is likely due to Arlington residents’ higher than average use of transit, bike, and walk for commuting. Commuters who worked in Arlington spent about the same amount of time commuting as did all regional commuters; 37 minutes compared to 36 minutes for the regional average.

Telework

The percentage of Arlington residents and Arlington workers who telework grew between 2010 and 2013, continuing a steady upward trend observed since 2004. But even with this growth, potential exists for additional teleworking.

- In 2013, 30% of Arlington residents and the same share of Arlington workers teleworked at least occasionally. These telework percentages were slightly higher than the 27% telework rate for all regional commuters. “Commuters” were defined as workers who were not self-employed and would otherwise travel to a worksite outside their homes if not teleworking.

- The shares of both Arlington residents and Arlington workers who teleworked exhibited steady growth between 2004 and 2013. In 2004, 13% of Arlington resident commuters teleworked. By 2010, the percentage had risen to 26% and grew still further to 30% in 2013. This pattern was essentially the same for commuters who worked in Arlington, with growth from 13% of Arlington workers in 2004 to 30% in 2013.

- The 2013 survey showed that an additional 17% of Arlington resident commuters and 19% of commuters who worked in Arlington did 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. These potential teleworkers total 20,900 Arlington residents and 34,100 Arlington workers.

Employers appeared to be very engaged in telework.

- The largest source of telework information for teleworkers who worked in Arlington was “special program at work/employer,” named by 72% of teleworkers, approximately the same as noted this source in 2010 (73%). But this source has grown significantly since 2004, when only 49% of teleworkers who worked in Arlington named the employer as the source of information. In 2007, 53% mentioned the employer.
• The share of commuters whose employers offered telework also has grown since 2004. In 2013, 60% of Arlington workers reported that their employer permitted some telework, compared with 38% in 2004, 47% in 2007, and 58% in 2010.

Availability of Transportation Options

*Nearly all Arlington respondents reported access to some transit service in their home area.*

• Respondents were asked if bus and/or train service operated in the area where they lived and where they worked. Among Arlington residents, 96% said some transit service served their home area and 91% reported that service operated in the area where they worked. Percentages were similar for respondents who worked in Arlington; 90% had access to transit at home and 96% had access where they worked.

• Eight in ten Arlington residents said they lived less than one-half mile from a bus stop and 93% said they lived less than one mile away. Among respondents who could provide a distance to a bus stop, the average distance was 0.3 miles. Train stations were quite a bit farther away for most Arlington residents. On average, respondents who provided a distance lived 2.0 miles away from a rail station.

• Arlington workers’ transit access at home was less convenient. About two-thirds (67%) lived less than one mile from a bus stop and 21% lived less than one mile from a train station. These percentages were essentially the same as for all workers in the region; 65% of workers region-wide lived less than one mile from a bus stop and 17% lived less than one mile from a train station.

*Three in ten respondents had access to HOV / express lanes for their commutes and HOV availability influenced mode choice.*

• Three in ten (31%) Arlington residents said there was an HOV / express lane along their route to work and 10% of residents used the lanes. These were essentially the same percentage as for regional commuters overall. Commuters who worked in Arlington noted much higher HOV/express lane availability and use: 50% of these commuters reported lane availability and 18% said they used an HOV/express lane.

• Six in ten (62%) Arlington workers who used the lanes for commuting said availability of the lane influenced their decision to carpool, vanpool, or ride transit for their commute. This was nearly twice the percentage of Arlington resident HOV users (33%) who said they had influenced their mode choice.

• But Arlington workers who regularly used the HOV/express lane estimated that using the lane saved them an average of 26 minutes for each one-way trip, twice the 12-minute saving that Arlington residents received when they used the lanes.
Attitudes Toward Transportation Options and Transportation Satisfaction

In 2013, about two in ten Arlington commuters reported an easier commute than last year, but a similar share said their commutes were more difficult.

- Region-wide, 23% of respondents said their commute was more difficult than it was a year ago and 17% said their commute was easier. The results for Arlington respondents were similar to those for the region. Two in ten (20%) Arlington residents said their commute was more difficult and 18% said it was easier. Among Arlington workers, 21% had a more difficult commute and 21% said it was easier.

- For at least some commuters, a residential or work location move appears to have affected their commute. Four in ten (41%) Arlington residents who moved either their home or work location in the past year reported an easier commute, compared with 14% of Arlington residents who had not made a recent move. The shares of commuters who had a more difficult commute were more similar; 25% who moved and 19% who did not move reported a more difficult commute. This suggests that a move might play a role in improving or worsening the commute, but that move more often improved the commute.

- Respondents who moved 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. Two in ten (20%) Arlington residents and 16% of Arlington workers who made a location change said they considered the length or ease of their new commute as one factor in their location decision. One quarter of Arlington residents who made a move and 44% of Arlington workers who moved said the ease of their new commute had been more important than other factors in their decision to make the move.

Seven in ten Arlington residents and two-third of Arlington workers are satisfied with their current commute.

- Seventy-one percent of Arlington residents said they were satisfied with their commute, higher than the 63% for all regional respondents and among the highest in the Washington metropolitan region. Commuters who worked in Arlington were slightly less satisfied; 66% said they were satisfied and 18% said they were not satisfied.

- Respondents who lived in Arlington, in Alexandria or the District of Columbia, the three jurisdictions in the central part of the region, were notably more satisfied with their commute than were respondents who lived farther from the regional core. More than seven in ten residents of the core jurisdictions were satisfied, compared with fewer than two-thirds of residents of other jurisdictions. Only about six in ten (62%) residents of Fairfax County, Arlington’s neighbor to the west, rated their commute as a 4 or 5.

- Commuters generally were less satisfied with transportation in the region than they were with their particular commute. But Arlington residents again gave higher ratings than did respondents across the region; 56% of Arlington residents said they were satisfied with the regional transportation system, compared with 49% of respondents region-wide.

- Among respondents who worked in Arlington, those who used transit or bike/walk to commute gave notably higher ratings for transportation satisfaction than did respondents who drove alone or who carpooled / vanpooled; about seven in ten transit riders and 56% of respondents who biked or walked to work gave a satisfaction rating of 4 or 5 on a 1 to 5 scale, compared with about four in ten respondents who drove alone or carpooled/vanpooled.
Commuters recognized both societal and personal benefits of ridesharing.

- When asked what benefits a region or community receives from use of alternative modes receive, 85% of Arlington residents and 88% of Arlington workers named at least one benefit. About two-thirds of both Arlington residents (68%) and Arlington workers (64%) said that use of alternative modes could reduce traffic congestion.

- A substantial share of respondents also noted benefits related to environmental concerns. Four in ten Arlington residents (42%) and Arlington workers (39%) said commuters who used alternative modes helped the environment, indicating some recognition that use of alternative modes has an impact on environmental quality. About one in ten in each Arlington group reported saving energy as a benefit and one in ten noted reducing greenhouse gases, benefits related to sustainability.

- When respondents who used alternative modes for their commute were asked what personal benefits they received from using these modes, 93% of Arlington residents and 95% of Arlington workers named at least one benefit. Saving money or gas topped the list of personal benefit, with 42% of residents and 35% of workers mentioning this benefit. Reducing stress was named by 25% of residents and 35% of Arlington workers. Arlington residents who used alternative modes also noted being able to use time productively and get exercise or health benefits. Respondents who worked in Arlington said their alternative mode use allowed them to reduce wear and tear on a personal vehicle.

- One-third of Arlington workers who carpooled, vanpooled, or rode transit to work said they performed work-related tasks during the commute; 19% performed work-related tasks “most days” and 13% performed work-related tasks “some days.” Among Arlington resident commuters, the percentages were even higher; 30% performed work-related tasks “most days” and 15% performed these tasks “some days.”

Awareness of Commute Advertising and Commute Assistance Resources

Awareness of commute information advertising remained high.

- About two-thirds (66%) of Arlington resident respondents and 61% of respondents who worked in Arlington said they had seen, heard, or read advertising for commuting within the past year. About four in ten respondents in each group could name a specific message they remembered. Five percent of Arlington residents named either Car Free Diet or Way to Go, two Arlington-specific campaigns.

- About six in ten Arlington residents who had heard ads could name the sponsor. WMATA was named by 30% as the advertising sponsor; 16% named Arlington County Commuter Services.
Commute advertising appeared to influence commuters’ consideration of travel options.

- More than one-quarter of Arlington residents (27%) and Arlington workers (26%) who saw or heard commute advertising said they were more likely to consider ridesharing or public transportation after seeing or hearing the advertising.

- About 8% of Arlington residents and the same share of Arlington workers who could recall an advertising message said they took some action after hearing the ad to try to change their commute. Many of these commuters said the action they took was to see more information, but about half tried or started using a new alternative mode for commuting. Commuters who tried or started alternative modes equaled about 2% of the total Arlington resident commuters interviewed and 1% of all Arlington workers.

Awareness of commute information and assistance resources has grown since 2004.

- Two-thirds of respondents who lived in Arlington (67%) and the same share of respondents who worked in Arlington (67%) said they knew of a telephone number or web site they could use to obtain commute information. These percentages were slightly higher than for all commuters in the region; region-wide, 62% of commuters knew of such a number or website.

- Awareness of commute resources fell between 2010 and 2013 for both Arlington residents (72% in 2010 to 67% in 2013) and Arlington workers (75% in 2010 to 67% in 2013). But the 2013 awareness was still higher than the rates for 2007 (Lived in Arlington – 52% and Worked in Arlington – 59%) and 2004 (Lived in Arlington – 45% and Worked in Arlington – 58%).

- About one-third (32%) of Arlington residents and 30% of those who worked in Arlington could name a specific commute information number or web site. One-quarter (23%) of Arlington residents and 16% of Arlington workers named a Metro/WMATA phone number or website. Arlington County resources were named by 3% of Arlington residents and 4% of Arlington workers. Commuter Connections was cited by about equal percentages of respondents regionally (3%), by those who lived in Arlington (2%), and those who worked in Arlington (3%).

More than three in ten Arlington commuters expressed interest in an “instant carpooling” service to facilitate ridematching for a single trip on short notice.

- About three in ten (29%) respondents who lived in Arlington expressed interest in using an instant carpooling service as a driver; 8% said they would be “very likely” to use the service and 21% said they would be “somewhat likely” to use it. Arlington residents were slightly more interested in using the service as a passenger; 10% were “very likely” and 26% were somewhat likely” to use it for this situation.

- The results were nearly identical among respondents who worked in Arlington. Thirty-percent who worked in Arlington said they would be interested in using the service as a driver, with 7% saying would be “very likely” to use the service. Almost four in ten said they would be interested in using the service as a passenger, with 12% saying they were “very likely” to use it.
More than four in ten Arlington respondents knew of either the Arlington County Commuter Services or The Commuter Store™.

- Respondents were asked about local commute assistance programs operating in the counties where they lived and worked. Region-wide, awareness of the 10 local programs ranged from 11% to 56% of the targeted populations. Arlington County Commuter Service/The Commuter Store™ had the third highest awareness; 44% of respondents who lived and/or worked in Arlington had heard of these programs.
- Arlington residents had greater awareness of ACCS/The Commuter Store™ (52%) than did respondents who worked in Arlington (40%).
- About 25% of respondents who lived or worked in Arlington County and knew of ACCS or The Commuter Store™ said they contacted or used one of the programs. This was among the highest use rates in the region; among the 10 local programs examined, use ranged from a low of 4% to a high of 32%.

Commuter Assistance Services Provided by Employers

Respondents who lived in Arlington and those who worked in Arlington were more likely than were other regional commuters to have access to commute assistance services at their work location.

- Nearly seven in ten Arlington resident commuters and 73% of respondents who worked in Arlington said their employers offered one or more alternative mode incentives or support services to employees at their worksites. This was compared with only 57% of all regional commuters who said they had access to these services.
- Arlington workers also had greater access to services than did workers in nearly all other jurisdictions. Access percentages for nearby jurisdictions were: District of Columbia – 75%, Montgomery County – 52%, Alexandría – 51%, and Fairfax County – 49%.
- The 2013 rates of commute service availability were slightly (3% to 4%) below 2010 rates, for both the Arlington respondents and for the region overall, suggesting some employers might have eliminated services they offered to employees, possibly due to recessionary cost-cutting.
- Respondents who worked in Arlington had greater access to each individual commute service than did respondents region-wide. The most commonly offered service was SmarTrip/subsidies for transit and vanpool, mentioned by 38% of all regional workers, but a considerably higher share (56%) of Arlington workers. Other services commonly mentioned by Arlington workers included information on commuter transportation options, available to 36% of respondents, services for bikers and walkers, mentioned by 30% of Arlington workers, and preferential parking for carpools and vanpools (27%).
- Respondents who worked for federal agencies reported greater access to commute services; have incentive/support services available; 94% of Arlington workers who worked for federal agencies said their employer offered commute services, compared with 76% of non-profit organization employees and 58% of respondents who worked for private companies.
- About 60% of Arlington workers whose employers offered commute services said they had used one or more of the available services. The most commonly used incentives/support service was transit/vanpool subsidies, used by 57% of respondents who said their employers offered this service. More than one-third (36%) who had access to commute information had used this service, and 30% of respondents who had access to bike/walk services had used them.
Only half of Arlington workers had free worksite parking.

- Region-wide, 63% of commuters said their employers offered free, on-site or off-site parking. Free parking was much less common for commuters who lived and/or worked in Arlington. Just under half (49%) of Arlington resident respondents and a similar share (49%) of respondents who worked in Arlington said their employers provided free parking. About 35% of Arlington residents and 30% of Arlington workers said they had to pay the total cost of parking; 10% of residents and 14% of Arlington workers paid or would pay a portion of the cost with the balance paid by their employers.

- Among employees who worked in neighboring jurisdictions, only District employees had lower access to free parking than Arlington workers. Three in ten (30%) commuters who worked in the District had free parking at work. By contrast, 72% of commuters who worked in Alexandria and 88% of commuters who worked in Fairfax County had free parking at work.

Worksite commuter assistance services and parking charges appeared to encourage use of alternative modes.

- Driving alone was less common for respondents who had access to incentive/support services. Only 53% of Arlington workers with access to these services drove alone to work, compared with 65% of Arlington workers whose employers did not provide these services.

- Respondents whose employers did not offer free parking also used alternative modes at much higher rates. Fewer than half (43%) of Arlington workers who did not have free parking drove alone, compared with 70% of respondents who did have free parking.
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SECTION 1  INTRODUCTION

Overview

In 2013, the Commuter Connections program of the Metropolitan Washington Council of Governments (MWCOG) conducted a regional State of the Commute (SOC) Survey, a random sample telephone survey of employed persons living in the 11-jurisdiction Washington metropolitan region. Eligible respondents were 18-years of age or older, employed, and residing within the study area.

The survey documented commuting behavior, such as commute mode shares and distance traveled, and prevalent attitudes about specific transportation services, such as public transportation, which are available to commuters in the region. The surveys also asked commuters about sources of information on alternative modes, their reasons for choosing alternative modes for commuting, and their awareness and use of commute alternative programs that might influence commuting behavior.

The 2013 survey represented the fifth triennial SOC survey, with other surveys conducted in 2010, 2007, 2004, and 2001. Each of the first four surveys interviewed a minimum of 600 residents from each of the jurisdictions located in the MWCOG region. The 2013 survey interviewed at least 575 residents in each jurisdiction. One of the jurisdictions covered by the survey is Arlington County, Virginia and the Arlington residents who participated in the survey are the primary focus of this survey analysis. But because the survey also collected data on respondents’ work location, the report presents results for respondents who worked in Arlington, regardless of their home location.

In another departure from previous surveys, the 2013 survey sample was drawn randomly from two separate sample groups: landline phone respondents, and cell phone respondents, with 15% of the calls being completed with cell phone respondents. In earlier years, only landline phone numbers were called, but it was deemed necessary in 2013 to include cell phone numbers because the proportion of “cell phone only” (CPO) households (i.e., households that had a cell phone but did not have a landline) had increased to an estimated 30% region-wide and because CPO households have been found to have different demographics (younger, more non-white, lower income) than those with landlines.

Survey Sample

The 2013 survey sample included 576 Arlington residents, slightly above the 575 minimum quota for the jurisdiction, and 474 respondents who worked in Arlington County. These two data sub-sets overlapped for 194 respondents who both worked and lived in the County. The sample sizes and statistical confidence levels for the populations of Arlington residents (Lived in Arlington) and Arlington workers (Worked in Arlington) were 95% ± 4.1% and 95% ± 4.5% respectively. Sample sizes and confidence levels also are shown below for 2013 and three previous SOC surveys.

<table>
<thead>
<tr>
<th></th>
<th>Sample</th>
<th>Lived in Arlington</th>
<th>Worked in Arlington</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>CL</td>
<td>576</td>
<td>474</td>
</tr>
<tr>
<td></td>
<td></td>
<td>95% ± 4.1%</td>
<td>95% ± 4.5%</td>
</tr>
<tr>
<td>2010</td>
<td>Sample</td>
<td>602</td>
<td>555</td>
</tr>
<tr>
<td></td>
<td>CL</td>
<td>95% ± 4.0%</td>
<td>95% ± 4.2%</td>
</tr>
<tr>
<td>2007</td>
<td>Sample</td>
<td>600</td>
<td>457</td>
</tr>
<tr>
<td></td>
<td>CL</td>
<td>95% ± 4.0%</td>
<td>95% ± 4.6%</td>
</tr>
<tr>
<td>2004</td>
<td>Sample</td>
<td>600</td>
<td>552</td>
</tr>
<tr>
<td></td>
<td>CL</td>
<td>95% ± 4.0%</td>
<td>95% ± 4.2%</td>
</tr>
</tbody>
</table>
To align the sampled survey results with published numbers for the study area for each of the survey years, the data in Arlington County and each of the other jurisdictions in the regional sample were expanded to represent the number of employed people and a correct distribution by race/ethnicity in that jurisdiction. The expansion methodology allowed the proper representation of employees in each of the jurisdictions.

In 2013, a three-part sample weighting process was implemented. 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 2010 SOC survey, 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, 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). Details of the weighting/expansion process are found in Appendix A. Appendix B presents a copy of the 2013 questionnaire.

**Organization of Results**

The balance of this report presents the survey results. This report documents SOC results for both respondents who lived in Arlington County and respondents who worked in the County. This report primarily focuses on the 2013 results. However, results for 2010, 2007, 2004, and 2001 also are presented for some questions. If no dates are provided in tables and figures, the data should be assumed to be from the 2013 SOC survey.

Further, the report presents selected comparisons between Arlington County and residents of the entire region and/or neighboring jurisdictions. Percentages presented in the results tables and figures show percentages weighted to the total working population, but the tables/figures also show the raw number of respondents (e.g., n=__) who answered the question.

Note also that the term “respondent,” when used in the text of the document, refers to expanded data, unless specifically noted otherwise. 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 generally follow the order of sections in the survey questionnaire.

  - Section 2 – Characteristics of the sample
  - Section 3 – Commute patterns
  - Section 4 – Telework
  - Section 5 – Availability of transportation options
  - Section 6 – Attitudes toward transportation options and transportation satisfaction
  - Section 7 – Awareness of commute advertising and assistance
  - Section 8 – Commuter assistance services provided by employers
SECTION 2  CHARACTERISTICS OF THE 2013 SOC SAMPLE

Arlington resident respondents closely mirrored the regional population of workers in the distributions by sex, and household income. But a larger percentage of Arlington residents were White than was the case for the regional population. Arlington residents also were slightly younger than the regional average.

Arlington workers were similar to the regional population in age and race/ethnicity, but had higher annual household incomes than the regional average. The employer size distribution for respondents who lived in Arlington generally followed the distribution of the region as a whole. Respondents who worked in Arlington County were more likely to work for a mid-sized or large employer than were respondents region-wide.

Demographic Characteristics

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

Age

Figure 1 presents the age distributions for the Washington region and for respondents who lived in Arlington and those who worked in Arlington. The age distributions for all regional respondents and for respondents who worked in Arlington were similar; about four in ten respondents were younger than 45. A slightly higher share (45%) of Arlington resident respondents was younger than 45 years of age.

Figure 1  Respondent Age

(All Region n = 6,165, Live in Arlington n = 551, Work in Arlington n = 454)
Income
Figure 2 shows that the annual household income distribution for respondents who lived in Arlington was similar to that for respondents region-wide. Half (49%) of Arlington residents reported household incomes of $120,000 or higher, the same as the percentage for all regional employees. Respondents who worked in Arlington had slightly higher incomes than the regional average. About 57% of respondents who worked in Arlington had household incomes of $120,000 or more.

![Figure 2](chart.png)

**Figure 2**
Annual Household Income
(All Region n = 4,439, Lived in Arlington n = 361, Worked in Arlington n = 325)

Race / Ethnicity
Table 1 presents the distribution of respondents by racial/ethnic background. Half of all regional respondents were White and one-quarter were African-American. Among Arlington residents, Whites represented a considerably larger percentage (67%) and African-Americans represented a smaller share (8%). The distribution of Arlington employees more closely mirrored that of the region, with 54% White respondents and 23% African-Americans. Percentages for other racial/ethnic groups were similar across the three groups.

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>All Region (n = 6,334)</th>
<th>Lived in Arlington (n = 576)</th>
<th>Worked in Arlington (n = 474)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White/Caucasian</td>
<td>50%</td>
<td>67%</td>
<td>54%</td>
</tr>
<tr>
<td>African-American</td>
<td>25%</td>
<td>8%</td>
<td>23%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>13%</td>
<td>14%</td>
<td>12%</td>
</tr>
<tr>
<td>Asian</td>
<td>10%</td>
<td>7%</td>
<td>8%</td>
</tr>
<tr>
<td>Other / mixed</td>
<td>2%</td>
<td>4%</td>
<td>3%</td>
</tr>
</tbody>
</table>
Sex
Among all regional respondents, 55% were female and 45% were male. Arlington resident respondents were evenly divided, with 50% females and 50% males. About half (51%) of the respondents who worked in Arlington were female; 49% were male.

Home and Work Locations

Home Locations – Table 2 presents the distribution of respondents by their home areas. About equal shares of all regional respondents lived in Maryland (44%) and Virginia (44%). The remaining 12% of respondents lived in the District of Columbia. Because the survey only interviewed residents of the 11-jurisdiction COG region, no respondents lived outside these areas.

About one-quarter (24%) of respondents who worked in Arlington County also lived in the County. Three in ten (30%) lived in Fairfax County and 18% lived in another Virginia jurisdiction. Two in ten (19%) lived in Maryland and the remaining 9% lived in the District of Columbia.

Work Locations – Work locations for all regional respondents were more evenly divided (Table 2). The largest share of respondents worked in Virginia (37%), but the District of Columbia and Maryland, with 34% and 27% of respondents, respectively, were close behind in employment. About four in ten (41%) Arlington residents said they worked in the District of Columbia. About half worked in Virginia; either in Arlington (34%), Fairfax County (14%), or in another Virginia jurisdiction (5%). Five percent said they worked in Maryland.

Table 2
Home and Work Locations

<table>
<thead>
<tr>
<th>Area</th>
<th>All Region (n = 6,613)</th>
<th>Lived in Arlington (n = 576)</th>
<th>Worked in Arlington (n = 474)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Location</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arlington County, VA</td>
<td>5%</td>
<td>100%</td>
<td>24%</td>
</tr>
<tr>
<td>Fairfax County, VA</td>
<td>22%</td>
<td>0%</td>
<td>30%</td>
</tr>
<tr>
<td>Other Virginia counties</td>
<td>17%</td>
<td>0%</td>
<td>18%</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>12%</td>
<td>0%</td>
<td>9%</td>
</tr>
<tr>
<td>Maryland counties</td>
<td>44%</td>
<td>0%</td>
<td>19%</td>
</tr>
<tr>
<td>Work Location</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arlington County, VA</td>
<td>7%</td>
<td>34%</td>
<td>100%</td>
</tr>
<tr>
<td>Fairfax County, VA</td>
<td>19%</td>
<td>14%</td>
<td>0%</td>
</tr>
<tr>
<td>Other Virginia counties *</td>
<td>11%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>31%</td>
<td>41%</td>
<td>0%</td>
</tr>
<tr>
<td>Maryland counties *</td>
<td>37%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>Other jurisdictions</td>
<td>3%</td>
<td>1%</td>
<td>0%</td>
</tr>
</tbody>
</table>

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

Respondents also were asked the number of employees at their worksites and the type of employer for which they worked. These results are shown in Figure 3 and Table 3, respectively.

Employer Size

The employer size distribution for respondents who lived in Arlington generally followed the distribution for the region as a whole. About 47% of Arlington residents and 48% of all regional workers worked for employers with 100 or fewer employees. And 43% of Arlington residents and 39% of all regional employees worked for employers that have more than 250 employees. Respondents who worked in Arlington County were more likely to work for a mid-sized or large employer. Only 40% worked for employers with 100 or fewer employees.

![Figure 3: Employer Size](image)

(All Region n = 5,385, Lived in Arlington n = 487, Worked in Arlington n = 390)

Employer Type

As shown in Table 3, four in ten (43%) regional respondents worked for a private sector employer. Government agencies employed more than one-third, divided between federal agencies with 22% and state and local agencies with 12%. About one in ten (13%) worked for a non-profit organization and 11% were self-employed.

The employer type distribution for Arlington residents was very close to that for the region overall. But a larger share of respondents who worked in Arlington worked for a Federal agency (32%) than was observed for the regional worker population (22%).
Table 3

**Employer Type**

<table>
<thead>
<tr>
<th>Employer Type</th>
<th>All Region (n = 6,084)</th>
<th>Lived in Arlington (n = 553)</th>
<th>Worked in Arlington (n = 454)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private sector</td>
<td>43%</td>
<td>40%</td>
<td>42%</td>
</tr>
<tr>
<td>Federal agency</td>
<td>22%</td>
<td>26%</td>
<td>32%</td>
</tr>
<tr>
<td>State/local agency</td>
<td>12%</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>Non-profit</td>
<td>13%</td>
<td>13%</td>
<td>11%</td>
</tr>
<tr>
<td>Self-employed</td>
<td>11%</td>
<td>11%</td>
<td>7%</td>
</tr>
</tbody>
</table>

**Occupations**

Respondents represented many occupations, but the majority in each of the three population groups worked in professional or executive/managerial occupations (Table 4). Arlington residents were particularly likely to work in professional occupations (48%). Respondents who worked in Arlington also were predominately professional or executive/managerial, but were more likely to be employed as technicians/support staff (16%) or military employees (4%) and less likely to be employed in sales (3%) than were all regional employees.

Table 4

**Occupation**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>All Region (n = 5,756)</th>
<th>Lived in Arlington (n = 515)</th>
<th>Worked in Arlington (n = 408)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td>41%</td>
<td>48%</td>
<td>42%</td>
</tr>
<tr>
<td>Executive/managerial</td>
<td>20%</td>
<td>24%</td>
<td>22%</td>
</tr>
<tr>
<td>Administrative support</td>
<td>14%</td>
<td>8%</td>
<td>13%</td>
</tr>
<tr>
<td>Technicians/support</td>
<td>4%</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>Sales</td>
<td>6%</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>Service</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Precision craft, production</td>
<td>3%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Protective services</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Military</td>
<td>1%</td>
<td>1%</td>
<td>4%</td>
</tr>
<tr>
<td>Other</td>
<td>5%</td>
<td>3%</td>
<td>2%</td>
</tr>
</tbody>
</table>
SECTION 3   COMMUTE PATTERNS

One objective of the survey was to inquire about respondents’ weekly commute patterns. Commute questions in the survey included:

- Work schedules
- Commute modes used and frequency of use
- Commute distance and time
- Alternative work schedules
- Alternative mode use characteristics
- Recent mode shifts
- Reasons for using current commute modes

Work Schedules

Full-time vs Part-time

A large majority (85%) of Arlington resident respondents worked full-time, defined as 35 or more hours per week. The full-time percentage was similar, 84%, for respondents who worked in Arlington.

Work at Home

One in ten (9%) Arlington resident respondents said they never commuted to a work location outside their homes. The majority of these respondents (7% of total respondents) said they were self-employed and had no other work location. The remaining 2% of respondents said they teleworked from home every day they worked. These percentages were slightly lower for respondents who worked in Arlington; 6% said they worked entirely at home, with 4% self-employed and 2% percent full-time teleworkers.

Respondents who said they did not travel outside their homes for work were not asked further questions about commute patterns, but were included in questions about awareness of transportation advertising and about personal demographics. Additionally, respondents who teleworked full-time were asked questions about their telecommute experience.

Non-Standard Work Schedules

Figure 4 displays the percentages of Arlington residents and Arlington employees who used each of three types of work schedules: standard week with fixed hours, flextime schedule, in which employees have flexible start and stop times, and compressed work schedule (CWS), in which employees work a full-time work week in fewer than five days.

The percentage distribution for work schedules was identical for both Arlington residents and for respondents who worked in Arlington; 93% of respondents worked a standard schedule, 1% had a flexible schedule and 6% worked a compressed work schedule (CWS). The most common CWS schedule for both Arlington residents and Arlington workers was a “9/80” schedule, with 80 hours of work over nine days, with one weekday off. Four percent of Arlington residents and 5% of Arlington workers reported this schedule; only 1% of workers in each Arlington group said they work another CWS schedule.
Figure 4
Non-Standard Schedule Types Used

<table>
<thead>
<tr>
<th>Lived in Arlington</th>
<th>Worked in Arlington</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n = 447)</td>
<td>(n = 369)</td>
</tr>
<tr>
<td><strong>Standard Schedule</strong></td>
<td><strong>Standard Sched</strong></td>
</tr>
<tr>
<td>93%</td>
<td>93%</td>
</tr>
<tr>
<td><strong>Flextime</strong></td>
<td><strong>Flextime</strong></td>
</tr>
<tr>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>CWS</strong></td>
<td><strong>CWS</strong></td>
</tr>
<tr>
<td>6%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Current Types of Commute Transportation

A large majority of both Arlington residents (95%) and Arlington workers (95%) used one type of transportation three or more days per week for travel to work.

Arlington residents drove alone to work much less than did all regional commuters and made many more commute trips by train. Respondents who worked in Arlington also drove alone less than did other regional commuters; they were more likely to use train or bus for their trip to work.

The drive alone mode share for Arlington residents has been stable since 2004, but use of bike/walk and telework have increased slightly.

The drive alone rate for Arlington workers did not change significantly from 2004 to 2007, but dropped substantially from 60% in 2007 to 55% in 2010, then remained stable at 54% in 2013. Train use increased correspondingly for Arlington workers.

Analysis of survey data for respondents who lived in Arlington showed no significant differences in choice of primary commute mode among various demographic groups. But Arlington residents who worked in the District of Columbia were substantially less likely to drive alone and more likely to ride a train to work than were those who worked in Virginia or Maryland.
Respondents who said they traveled outside their homes to work were asked what types of transportation they used to travel to work each weekday (Monday-Friday) during the previous week. If they were sick, on holiday or vacation, or otherwise absent from work one or more days during the week, respondents were asked to report how they likely would have traveled to work on those days. The next section presents several different views of modal distribution.

**Weekly Trips by Type – 2013**

Figure 5 presents shares of types of transportation as a percentage of weekly “work days,” that is, days that employees are assigned to work. The five traditional types of commute mode are shown for days employees travel to a work location outside their homes: drive alone, train (Metrorail/commuter rail), carpool/vanpool, bus, and bike/walk. One additional category, compressed work schedule / telework (CWS/TW), also is shown. Telework and CWS are not actually types of transportation, but are included to show the percentage of weekly work trips eliminated through use of these work location and work schedule options. The figure shows the distribution of modes for all regional respondents, respondents who lived in Arlington, and respondents who worked in Arlington.

**Figure 5**
*Current Commute Modes – Percentage of Weekly Work Days*

(All Region n = 5,882, Lived in Arlington n = 519, Worked in Arlington n = 422)

<table>
<thead>
<tr>
<th>Mode</th>
<th>All Region</th>
<th>Lived in Arlington</th>
<th>Worked in Arlington</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive alone</td>
<td>53%</td>
<td>54%</td>
<td>53%</td>
</tr>
<tr>
<td>Train</td>
<td>18%</td>
<td>18%</td>
<td>18%</td>
</tr>
<tr>
<td>Bus</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Bike/Walk</td>
<td>2%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Carpool/Vanpool</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Telework/CWS</td>
<td>8%</td>
<td>8%</td>
<td>9%</td>
</tr>
</tbody>
</table>

**All Region** – Two-thirds (66%) of all regional work trips were made by driving alone. The second most popular mode was train, including Metrorail and commuter rail, which accounted for 13% of regional commute trips. Carpool/vanpool and bus were used for 6% and 5% of trips, respectively. Two percent of weekly trips were made by bike or walking and telework and compressed schedules accounted for the remaining 8% of weekly trips. As noted earlier, these “trips” actually were not made, but these days were officially assigned as part of the work week, so were included in this distribution.
**Lived in Arlington** – Arlington residents showed substantially different commute choices than did respondents region-wide. The drive alone share was only 53%, significantly below the 66% rate for all regional employees. And train use was well above the regional average; Arlington residents rode a train for 18% of their weekly commute trips, compared with 13% for all regional workers. The share of trips made by bike/walk also was considerably higher for Arlington residents (7%) than for the region as a whole (2%). Only the District of Columbia had a higher resident walk mode share; District residents made 10% of their work trips by walking or bicycling. Carpool/vanpool and telework/CWS shares were about the same as for the region.

**Worked in Arlington** – The commute mode pattern for respondents who worked in Arlington was very similar to that for Arlington residents. Arlington workers also made fewer work trips by driving alone (54%) than did all regional workers and made more trips by train (18%) and bus (8%) than did workers region-wide. Arlington workers’ use of bike/walk, carpool/vanpool, and telework/CWS was similar to that for all regional workers.

**Weekly Trips by Mode – Arlington Compared with Neighboring Jurisdictions**

**Resident Comparisons** – Table 5 displays the mode shares for Arlington residents, for residents of the three neighboring jurisdictions: City of Alexandria, the District of Columbia, and Fairfax County, and for the suburban Maryland counties that border the District of Columbia to the north and east. The District of Columbia, the urban center of the region, had by far the lowest drive-alone rate among these jurisdictions; District residents made just 37% of their weekly commute trips by driving alone, with 39% by bus or train and 10% by bike or walk.

<table>
<thead>
<tr>
<th>Mode by HOME Jurisdiction</th>
<th>Arlington (n = 519)</th>
<th>Alexandria (n = 531)</th>
<th>District of Columbia (n = 531)</th>
<th>Fairfax County (n = 545)</th>
<th>Suburban Maryland* (n = 1,072)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive alone</td>
<td>53%</td>
<td>62%</td>
<td>38%</td>
<td>69%</td>
<td>71%</td>
</tr>
<tr>
<td>Bus or train</td>
<td>26%</td>
<td>23%</td>
<td>39%</td>
<td>14%</td>
<td>16%</td>
</tr>
<tr>
<td>Carpool or vanpool</td>
<td>6%</td>
<td>5%</td>
<td>7%</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>Bike or walk</td>
<td>7%</td>
<td>4%</td>
<td>10%</td>
<td>1%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Telework / CWS</td>
<td>8%</td>
<td>6%</td>
<td>7%</td>
<td>9%</td>
<td>8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mode by WORK Jurisdiction</th>
<th>Arlington (n = 422)</th>
<th>Alexandria (n = 311)</th>
<th>District of Columbia (n = 1,743)</th>
<th>Fairfax County (n = 882)</th>
<th>Suburban Maryland* (n = 1,049)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive alone</td>
<td>54%</td>
<td>79%</td>
<td>41%</td>
<td>78%</td>
<td>79%</td>
</tr>
<tr>
<td>Bus or train</td>
<td>26%</td>
<td>9%</td>
<td>38%</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>Carpool or vanpool</td>
<td>7%</td>
<td>4%</td>
<td>11%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Bike or walk</td>
<td>4%</td>
<td>3%</td>
<td>4%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Telework / CWS</td>
<td>9%</td>
<td>5%</td>
<td>6%</td>
<td>9%</td>
<td>9%</td>
</tr>
</tbody>
</table>

* Suburban Maryland counties includes Montgomery County and Prince George’s County
Arlington residents’ drive alone mode share of 53% was well above the rate for District residents, but nine percentage points lower than the rate for Alexandria, the third jurisdiction in the urban core, along with Arlington and the District. Arlington residents used both bus/train and bike/walk at slightly higher rates than did Alexandria residents. Arlington’s drive alone mode share was 16 percentage points lower than the rate for Fairfax County, its neighbor to the west. Again, the difference was due to the higher use of bus/train and bike/walk for Arlington residents. Carpool/vanpool and telework rates were essentially the same across the four jurisdictions.

The last column of Table 5 shows the mode split for the suburban Maryland counties, Prince George’s and Montgomery, that border the District of Columbia to the east. The mode share for residents of these counties were essentially the same as for residents of Fairfax County, with the drive alone rate of 71% much higher than Arlington’s 53%. The mode shares for commuters who worked in the suburban Maryland counties also mirrored those for commuters who worked in Fairfax County. Thus, although these counties are directly adjacent to the District, as is Arlington, the mode use patterns of these counties suggest a more suburban than urban environment.

Worker Comparisons – The bottom section of Table 5 shows mode use for respondents who worked in Arlington and in the three neighboring jurisdictions. The 41% drive-alone rate for respondents who worked in the District of Columbia was again the lowest of the four jurisdictions. Arlington workers’ drive alone rate of 54% was higher than the rate for the District, but was essentially the same as the 53% for Arlington residents. Arlington workers’ transit and carpool/vanpool mode shares were lower than the District rates. Their use of bike/walk and telework, however, was as high or higher than the corresponding rates for District workers.

By contrast, drive-alone rates for respondents who worked in Alexandria and Fairfax, 78% and 79%, respectively, were well above both the drive-alone rates for their residents and the 54% rate for Arlington workers. Arlington’s lower drive alone rate compared to these neighbors was primarily due to its much higher transit mode share. But Arlington workers also used carpool/vanpool at a higher rate than did workers in both Alexandria and Fairfax, walked and biked more than did Fairfax workers, and used telework/ CWS at nearly twice the rate of respondents who worked in Alexandria. In short, Arlington workers met or exceeded use of all alternative modes, when compared with these neighbors.

As noted earlier, the State of the Commute survey also was conducted in several previous years. Following are comparisons of mode split for 2013 and three other survey years for respondents who lived in Arlington (Figure 6) and those who worked in Arlington (Figure 7).

Lived in Arlington – Figure 6 shows types of transportation used by Arlington residents in the four survey years. Four “on the road” travel groups are shown: drive alone, transit (Metrorail/commuter rail, bus), carpool/vanpool, and bike/walk. Telework and CWS also are shown in the figure.

The drive-alone percentage has remained approximately at the same level since 2004. The slight increases and decreases in the drive-alone percentages were not statistically significant differences. Changes in transit use and carpool/vanpool use also were not statistically significant differences. But the increase in bike/walk, from 4% to 7%, and the increase in telework/compressed schedules, from 4% to 8%, were significant.
**Figure 6**


*Worked in Arlington* – Figure 7 compares mode split for the four survey years for respondents who worked in Arlington. The distribution of mode use was relatively stable between 2004 and 2007. The survey in 2010 showed a substantial drop in the drive alone rate from 60% in 2007 to 55% in 2010, and a nearly equal increase in the percentage of trips made by transit from 23% in 2007 to 27% in 2010. These percentages remained essentially the same in 2013. The telework/CWS percentage increased substantially since 2004. Differences in percentages of trips made by other modes were essentially unchanged from 2004 to 2013.

**Figure 7**


(2004 n = 516, 2004 n = 455, 2010 n = 506, 2013 n = 422)
Frequency of Current Mode Use

Table 6 shows mode split for 2013 from a second perspective – as the percentage of respondents who used each type of transportation. The table presents the percentages of Arlington residents and Arlington workers who used each type as their “primary” mode, defined as the type used most days of the week. Nearly all (95%) respondents in both categories said they used a single type of transportation most days of the week. Since most respondents worked five days per week, primary mode generally equated to use three or more days per week. The table also shows the percentages who used each mode as a secondary mode, typically one or two days per week.

Half (51%) of commuters who lived in Arlington said they primarily drove alone to work, but an additional 8% said they drove alone occasionally (secondary mode). About 17% of residents primarily commuted by train and 4% used this type as a secondary mode. Bus, carpool/vanpool, bike, and walk had fewer occasional users; only 2% of residents said they occasionally used a bus and 1% reported occasional use of other modes. Six percent of resident respondents primarily teleworked; another 9% teleworked one or two days per week. The distributions of primary use and occasional mode use were similar for commuters who worked in Arlington.

Average Days Used – Table 6 also shows the average number of days per week each type of transportation was used. All of the traditional commute modes were used at least three days per week on average. This is consistent with other results in the survey, which show that most respondents use one type of transportation most of the time for their commute.

### Table 6
Primary and Secondary Commute Modes – Lived in Arlington and Worked in Arlington
Percentage of Respondents Who Use Modes and Average Days Used per Week

<table>
<thead>
<tr>
<th>Mode</th>
<th>Live in Arlington (n = 519)</th>
<th>Work in Arlington (n = 422)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Primary</td>
<td>Secondary</td>
</tr>
<tr>
<td>Drive alone</td>
<td>51%</td>
<td>8%</td>
</tr>
<tr>
<td>Train</td>
<td>17%</td>
<td>4%</td>
</tr>
<tr>
<td>Bus</td>
<td>8%</td>
<td>2%</td>
</tr>
<tr>
<td>Carpool</td>
<td>6%</td>
<td>1%</td>
</tr>
<tr>
<td>Walk</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>Bike</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Telework</td>
<td>6%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Telework exhibited low average use, compared to other types of transportation. Arlington residents who teleworked reported using this arrangement an average of 2.4 days during the survey week. The average telework frequency for respondents who worked in Arlington was 2.7 days per week. Note, however, that these averages included only respondents who actually teleworked during the survey week. Many more respondents said they teleworked infrequently, for example “occasionally for special projects.” These respondents were not counted in the frequency base for this table.

Primary Mode by Demographic Group

Analysis of survey data for respondents who lived in Arlington showed no significant differences in choice of primary commute mode among various demographic groups. Men and women were approximately equally likely to drive alone as were respondents from the four main ethnic groups (African-American, Asian, Hispanic, and White).
Similarly, no significant differences were noted for respondents in different age groups or in different income groups. It should be noted, however, that the sample sizes for these sub-groups often were quite small, so any apparent differences were within the statistical error ranges. Statistically significant differences were found only for residents whose household owed different numbers of vehicles. These results are presented below.

**Vehicles Available** – Table 7 presents the distribution of types of transportation used by the number of vehicles available to the respondent. As expected, respondents who did not have a vehicle available were considerably less likely to drive alone and considerably more likely to travel to work by transit than were those with one or more vehicles. As the number of vehicles in the household increased from zero to one and from one to two, driving alone increased and the use of transit declined.

**Table 7**

<table>
<thead>
<tr>
<th>Number of Vehicles</th>
<th>(n=__)</th>
<th>Drive Alone</th>
<th>Carpool / Vanpool</th>
<th>Transit</th>
<th>Bike / Walk</th>
<th>Telework</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>40</td>
<td>1%*</td>
<td>9%</td>
<td>66%</td>
<td>20%</td>
<td>4%</td>
</tr>
<tr>
<td>1</td>
<td>191</td>
<td>47%</td>
<td>4%</td>
<td>34%</td>
<td>6%</td>
<td>9%</td>
</tr>
<tr>
<td>2</td>
<td>195</td>
<td>61%</td>
<td>5%</td>
<td>22%</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>3 or more</td>
<td>103</td>
<td>66%</td>
<td>10%</td>
<td>10%</td>
<td>8%</td>
<td>6%</td>
</tr>
</tbody>
</table>

* Respondents in this group could be passengers in taxi

**Primary Mode by Residence and Employment Location**

**Residence Ring** – Commuters’ mode use also differs by how close the commuter lived to the center of the region. Figure 8 displays primary mode as a function of respondents’ residence “ring.” Fewer than half (45%) of commuters who lived in the regional Core area, which includes Arlington, Alexandria, and the District of Columbia, drove alone.

This was much lower than the drive alone rates for the Middle Ring (70%) and the Outer Ring (74%)\(^1\). It also was only slightly higher than the 37% drive alone share noted in Table 5 for the District of Columbia alone. Transit use in the Core area was nearly as high as it was for the District of Columbia alone. This suggests that the two Virginia jurisdictions included in the Core were more similar to the District of Columbia in travel mode characteristics than they were to other Virginia jurisdictions.

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\(^1\) Middle Ring includes Fairfax County, VA; Montgomery County, MD; and Prince George’s County, VA. Outer Ring includes Calvert County, MD; Charles County, MD; Frederick County, MD; Loudoun County, VA; and Prince William County, VA
Employment Ring – Figure 9 displays primary mode as a function of respondents’ employment location, in the ring designations defined earlier. The mode pattern for employment locations was similar to that for the residence rings, but more pronounced. Fewer than half (47%) of commuters who worked in the Core area drove alone. This was dramatically lower than the drive alone rates for the Middle Ring and Outer Ring; in both of these areas about eight in ten workers drove alone. Transit use was high in the 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 Core areas as well as the inbound focus of transit service during peak commuting hours.
Length of Commute

Commute distances for Arlington residents were much shorter than for all regional commuters. Commute times also were shorter than the regional average, but not proportionately shorter, likely due to Arlington residents’ higher than average use of transit, bike, and walk for commuting.

The average distance for respondents who worked in Arlington was much higher than for Arlington residents, although still below the regional average. But Arlington workers’ commute times were about the same as the average region-wide.

Number of Commute Miles

Figure 10 shows the average travel distance and the distribution of distance by mileage groups for all commuters in the region, for respondents who lived in Arlington, and those who worked in Arlington. The average one-way commute distance for all respondents in the region was 16.0 miles, one-way. Nearly four in ten (38%) regional commuters commuted fewer than 10 miles one-way. Three in ten (30%) said they traveled between 10 and 19 miles. About a third (32%) had commute distances of 20 miles or greater.

Figure 10
Commute Distance (miles)

(All Region n = 5,122, Live in Arlington n = 459, Work in Arlington n = 371)
Commuters who lived in Arlington traveled much shorter distances, an average of only 8.4 miles one-way. Seven in ten (69%) traveled fewer than 10 miles and only 11% traveled 20 or more miles. By contrast, commuters who worked in Arlington traveled 14.7 miles one-way, much closer to the regional average distance. More than a third (36%) traveled 20 or more miles one-way.

**Commute Travel Time**

Figure 11 presents the average commute time for all regional commuters and for the two groups of Arlington commuters. The average regional commute time in 2013 was 36 minutes one-way. About a third (34%) of regional commuters traveled 20 minutes or less and 44% commuted between 21 and 45 minutes. The remaining 22% traveled more than 45 minutes.

The travel time for commuters who lived in Arlington (28 minutes) was less than the regional average, but not a proportionately lower time compared to the differences in commute miles. But nearly half (46%) of Arlington resident commuters said they traveled 20 minutes or less and a full 68% traveled 30 minutes or less.

Commuters who worked in Arlington spent about the same amount of time commuting as did all regional commuters; 37 minutes compared to 36 minutes for the regional average. More than half (53%) traveled longer than 30 minutes one-way and 27% traveled more than 45 minutes.
Commute Distance by Mode

As noted above, Arlington residents traveled both shorter distances and shorter times than did all regional commuters, but the time difference was less dramatic than was the distance difference. This is because more Arlington resident commuters walked/biked or used transit than was common for other commuters in the region and trips by these types of transportation typically are shorter distance but longer time than trips by other types of transportation.

Table 8 lists the average commute distances and times for Arlington residents who used various modes. Commuters who drove alone traveled the farthest (10.3 miles one-way) and traveled farther than the average distance of 8.4 miles. Metrorail and bus riders spent the longest time commuting, 36 minutes and 34 minutes one-way, respectively, compared with about 26 minutes for drive-alone respondents and 28 minutes for all respondents.

<table>
<thead>
<tr>
<th>Primary Commute Mode *</th>
<th>Average Distance (mi.)</th>
<th>Average Time (min.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall average</strong></td>
<td>459</td>
<td>8.4 mi.</td>
</tr>
<tr>
<td>Drive alone</td>
<td>293</td>
<td>10.3 mi.</td>
</tr>
<tr>
<td>Metrorail</td>
<td>91</td>
<td>7.4 mi.</td>
</tr>
<tr>
<td>Carpool</td>
<td>33</td>
<td>6.5 mi.</td>
</tr>
<tr>
<td>Bike *</td>
<td>14</td>
<td>5.8 mi.</td>
</tr>
<tr>
<td>Bus</td>
<td>45</td>
<td>5.1 mi.</td>
</tr>
<tr>
<td>Walk</td>
<td>26</td>
<td>0.8 mi.</td>
</tr>
</tbody>
</table>

* Vanpool and commuter rail not shown due to small sample sizes (vanpool n = 1, commuter rail n = 2). Note also that the sample for bike also is small.

Work Arrival Time

More than half of Arlington residents (54%) and a similar share of Arlington workers (54%) typically arrived at work between the hours of 7:00 a.m. and 9:00 a.m. (Figure 12). Another two in ten respondents in both groups arrive between 9:01 a.m. and 10:00 a.m., so they also would be traveling during the peak commuting time. These results were quite similar for the region as a whole.
Alternative Transportation Use Characteristics

Commuters who lived or worked in Arlington were slightly more likely to have started using an alternative mode within the past three years than were commuters region-wide.

Most Arlington residents who had been using their current alternative mode for three years or less said they had previously used a different alternative mode or had “always used/only used” their current type of transportation. The remaining 21% shifted from driving alone.

Among Arlington workers who had used their current alternative mode for three years or less, 37% shifted from driving alone.

Arlington commuters who used alternative modes did so primarily to save money, save time, because they changed jobs or work hours, moved to a new residence, or because they did not have a vehicle available for commuting. One in ten Arlington residents said they used alternative modes because they didn’t have parking or had to pay a parking charge at work. Arlington workers were less likely to mention an issue with parking at work and not having a vehicle available, but more likely to say they started using an alternative mode because their employer offered a financial incentive.
Carpool and Vanpool Occupancy
The average number of occupants in Arlington residents’ carpools/vanpools was 2.6 people. The occupancy was the same, 2.6, for respondents who worked in Arlington.

Access to Alternative Mode Meeting Points
Table 9 presents how carpoolers, vanpoolers, and transit riders traveled to where they met their rideshare partners or where they started their transit trip.

Table 9
Means of Getting from Home to Transit / Rideshare Meeting Place

<table>
<thead>
<tr>
<th>Access Mode to Alternative Mode</th>
<th>All Region (n = 1,442)</th>
<th>Lived in Arlington (n = 204)</th>
<th>Worked in Arlington (n = 162)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driving Access</td>
<td>29%</td>
<td>5%</td>
<td>33%</td>
</tr>
<tr>
<td>Drive to a central location (e.g., Park &amp; Ride)</td>
<td>19%</td>
<td>3%</td>
<td>21%</td>
</tr>
<tr>
<td>Drive alone to driver’s/passenger’s home</td>
<td>10%</td>
<td>2%</td>
<td>12%</td>
</tr>
<tr>
<td>Non-driving access</td>
<td>71%</td>
<td>95%</td>
<td>67%</td>
</tr>
<tr>
<td>Walk/bicycle</td>
<td>34%</td>
<td>59%</td>
<td>34%</td>
</tr>
<tr>
<td>Bus/train</td>
<td>13%</td>
<td>15%</td>
<td>13%</td>
</tr>
<tr>
<td>Drive car/vanpool, live with other pool members</td>
<td>6%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Picked up at home by car/vanpool driver</td>
<td>16%</td>
<td>13%</td>
<td>12%</td>
</tr>
<tr>
<td>Distance to meeting point</td>
<td>2.9 miles</td>
<td>0.9 miles</td>
<td>3.5 miles</td>
</tr>
<tr>
<td>Percentage traveling 1 miles or less</td>
<td>61%</td>
<td>87%</td>
<td>48%</td>
</tr>
</tbody>
</table>

Among all regional workers, about a third (34%) walked or bicycled to the meeting place. Sixteen percent said they were picked up at home by the carpool or vanpool driver and 6% always drove the pool vehicle or rode with a household member, so they left together. Thirteen percent of respondents rode transit to the meeting point and 2% said they were dropped off, for example by a household member.

The remaining three in ten respondents (29%) said they drove to the meeting point, such as a Park & Ride lot or the home of a carpool rider, but left 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.

Lived in Arlington – The results were strikingly different for Arlington residents. Nearly six in ten (59%) said they walked/bicycled to the meeting point and 15% used a bus or other transit. Only five percent drove to the meeting point and parked their cars for the rest of the day.

Worked in Arlington – Commuters who worked in Arlington, on the other hand, had access patterns that were similar to the regional pattern. One-third (33%) drove to the meeting point and parked their cars for the rest of the day. One-third (34%) walked/bicycled to the meeting point.

In general, access trips to alternative mode meeting points were short. Commuters across the region traveled an average of 2.9 miles one-way and six in ten (61%) traveled one mile or less. Arlington residents traveled 0.9 miles
on average, with 87% traveling one mile or less. This is consistent with the high percentage of residents who said they walked to the meeting point. The average access distance for respondents who worked in Arlington was about 3.5 miles one way. About half of these respondents traveled one mile or less.

**Length of Time Using Alternative Modes**

Respondents who used an alternative mode to get to work at the time of the survey were asked how long they had used the alternative mode they used most often. Results are presented in Figure 13 for all regional workers, Arlington residents, and respondents who worked in Arlington.

![Figure 13 Length of Time Using Alternative Modes](image)

In all three groups, a substantial portion of respondents were long-term users of alternative modes. More than half (52%) of alternative mode users region-wide had used their current mode for more than five years and two-thirds (66%) had used this mode for three or more years.

Slightly smaller shares of respondents who lived in Arlington (45%) and who worked in Arlington (44%) had used their current alternative modes for five or more years. Alternative modes continue to attract new users. Seventeen percent of Arlington residents and 16% of respondents who worked in Arlington shifted to their current alternative mode less than a year ago.

**Modes Used Before Starting Current Alternative Modes**

Respondents who had used an alternative mode for three years or less were asked what type of transportation they used before starting these alternatives. About three in ten (31%) Arlington residents said they had previously been driving alone (Table 10). The percentages of shifts from driving alone were higher among respondents who worked in Arlington (37%) and respondents region-wide (39%).

In all three groups, a sizeable share of respondents shifted from another alternative mode, for example, from bus to carpool. Shifts between alternative modes were most common for Arlington residents; 31% shifted from a bus or train, 15% shifted from walk or bike, and 2% previously carpoled or vanpoled to work. About 39% of regional respondents and 51% of respondents who worked in Arlington made a shift from another alternative mode.
Table 10

Modes Used Before Starting Current Alternative Mode*
Respondents who Used their Current Alternative Mode Three Years or Less

<table>
<thead>
<tr>
<th>Previous Mode</th>
<th>All Region (n = 686)</th>
<th>Lived in Arlington (n = 134)</th>
<th>Worked in Arlington (n = 116)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always used this alternative mode</td>
<td>22%</td>
<td>21%</td>
<td>12%</td>
</tr>
<tr>
<td>Drive alone</td>
<td>39%</td>
<td>31%</td>
<td>37%</td>
</tr>
</tbody>
</table>

| Previous Alternative Mode     | 39%                  | 48%                         | 51%                           |
| Train                         | 17%                  | 22%                         | 22%                           |
| Bus                           | 11%                  | 9%                          | 12%                           |
| Carpool/vanpool               | 7%                   | 2%                          | 7%                            |
| Bike/walk                     | 4%                   | 15%                         | 10%                           |

*Does not include respondents who said they did not live or work in the Washington region prior to starting to use the alternative mode.

It is also notable that some respondents in each group said they had “always used this mode,” and thus had no previous mode to report. Additionally, some respondents, particularly those living in Arlington, said they were not working in the Washington metropolitan area prior to starting to use their current alternative mode. These respondents were not included in the table.

Reasons for Using Alternative Modes
Respondents who were using an alternative mode at the time of the survey were asked why they began using the modes. Respondents mentioned a wide variety of reasons, 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

Table 11 shows responses for all respondents region-wide and for respondents who lived in Arlington and those who worked in Arlington.

Region-wide, current alternative mode users noted motivations in each of the three categories. The most common personal benefit reasons were 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%).

Among Arlington residents, the most common personal benefit reasons were to save money (12%) or save time (11%). In the commute program category, 12% said they used alternative modes because they didn’t have parking at work or had to pay a parking charge. This was a considerably higher share than for the region. Common personal circumstances reasons included changed jobs or work hours (19%), no vehicle available (15%), moved to new residence (14%), and convenient / close to work (12%).
### Table 11
Reasons for Using Current Alternative Modes – Lived in Arlington and Worked in Arlington
(Shaded percentages indicate statistically significant higher responses)

<table>
<thead>
<tr>
<th>Reasons</th>
<th>All Region (n = 576)</th>
<th>Lived in Arlington (n = 101)</th>
<th>Worked in Arlington (n = 99)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal Benefit Motivations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Save money, gas prices too high</td>
<td>16%</td>
<td>12%</td>
<td>11%</td>
</tr>
<tr>
<td>- Save time</td>
<td>12%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>- Avoid congestion</td>
<td>5%</td>
<td>4%</td>
<td>9%</td>
</tr>
<tr>
<td>- Tired of driving</td>
<td>2%</td>
<td>2%</td>
<td>5%</td>
</tr>
<tr>
<td>- Avoid / reduce stress</td>
<td>3%</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Commute Program Motivations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- No parking, parking expense</td>
<td>5%</td>
<td>12%</td>
<td>4%</td>
</tr>
<tr>
<td>- Financial incentive offered</td>
<td>3%</td>
<td>1%</td>
<td>9%</td>
</tr>
<tr>
<td><strong>Personal Circumstances Motivations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Changed jobs/work hours</td>
<td>18%</td>
<td>19%</td>
<td>14%</td>
</tr>
<tr>
<td>- No vehicle available</td>
<td>11%</td>
<td>15%</td>
<td>4%</td>
</tr>
<tr>
<td>- Moved to new residence</td>
<td>10%</td>
<td>14%</td>
<td>11%</td>
</tr>
<tr>
<td>- Convenient, close to work</td>
<td>5%</td>
<td>12%</td>
<td>6%</td>
</tr>
<tr>
<td>- Employer/worksite moved</td>
<td>6%</td>
<td>7%</td>
<td>9%</td>
</tr>
<tr>
<td>- During bad weather</td>
<td>0%</td>
<td>7%</td>
<td>4%</td>
</tr>
<tr>
<td>- Didn’t like previous mode</td>
<td>3%</td>
<td>0%</td>
<td>7%</td>
</tr>
</tbody>
</table>

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

In general, respondents who worked in Arlington cited similar motivations for using alternative modes, but four reasons showed significant difference between Arlington residents and Arlington workers. Arlington workers were less likely to mention an issue with parking at work and not having a vehicle available, but more likely to say they started using an alternative mode because their employer offered a financial incentive or because they didn’t like their previous mode.
SECTION 4  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.”

Note that this definition excludes workers who worked at client sites outside of the Washington region and workers, such as sales or equipment repair staff, who would travel to multiple customer locations during the course of the day. The definition also excludes respondents who worked a portion of the normal workday at home, for example while waiting for a delivery, but who traveled to the regular workplace for another part of the day. These situations are not generally considered telework for transportation purposes.

This section presents these results for 2013 and, in some tables, results for 2010, 2007, and 2004.

Current and Potential Telework

The telework percentage for commuters who lived in Arlington (31%) was similar to that for commuters who worked in Arlington (30%) and slightly higher than the 27% telework rate for all regional commuters.

About two in ten Arlington residents who did not telework said their job responsibilities would allow some telework and that they were interested in using this arrangement. The percentage of “could and would” telework potential was similar for non-telework Arlington workers.

About seven in ten Arlington resident teleworkers and the same share of teleworkers who worked in Arlington said they heard about telework from their employers. The percentage has been consistent for Arlington residents since 2004, but represents a substantial growth for Arlington workers; in 2004, just 49% of telework respondents who worked in Arlington mentioned the employer as the source.

Respondents who Currently Telework

Respondents were read the telework definition cited above and asked if they would consider themselves teleworkers based on this definition. Nearly three in ten (28%) of all Arlington resident respondents and the same percentage of respondents who worked in Arlington said they teleworked, either regularly or occasionally. This was slightly above the regional average; across the Washington metropolitan region, 25% of all workers teleworked.

But teleworkers accounted for a higher percentage of commuters, that is, workers who traveled to a main work location on non-telework days. Using this base of commuters excludes workers who were self-employed and for whom home was their only workplace. These workers did not have an outside work location, thus never made 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. About 30% of Arlington resident commuters and 30% of Arlington employee commuters teleworked. The regional percentage was 27%
The share of commuters who teleworked exhibited steady growth between 2004 and 2013 (Figure 14). In 2004, 13% of Arlington resident commuters teleworked. By 2010, the percentage had risen to 26%. It grew still further to 30% in 2013. This pattern of growth was similar for commuters who worked in Arlington and for commuters region-wide.

**Figure 14**


(2004 - All Region n = 6,851, Lived in Arlington n = 565, Worked in Arlington n = 516)
(2007 - All Region n = 6,168, Lived in Arlington n = 561, Worked in Arlington n = 412)
(2010 - All Region n = 6,050, Lived in Arlington n = 551, Worked in Arlington n = 506)
(2013 - All Region n = 5,882, Lived in Arlington n = 519, Worked in Arlington n = 474)

Interest in Telework

The 73% of regional commuters who did not telework were asked if their job responsibilities would allow them to work at a location other than their main workplace, at least occasionally. About one-third of these respondents, equating to 29% of all regional commuters, said they could perform some job responsibilities at another location. The remaining two-thirds, equating to 44% of regional commuters, said telework was not a feasible option because they could not perform their job responsibilities at a location other than their main or designated workplace (Table 12). The results were similar for both of the Arlington commuter groups; 29% of Arlington residents and 25% of Arlington workers said telework would be a feasible option.

Respondents for whom telework was a possibility were asked if they would want to telework. Seventeen percent of Arlington resident commuters and 19% of commuters who worked in Arlington said they would be interested in telework on an occasional or regular basis, if they were given the opportunity. These results suggest additional telework growth potential exists among both Arlington residents (20,900 potential new teleworkers) and Arlington workers (34,100 potential new teleworkers).

Among respondents who worked in Arlington, the potential for additional telework was most evident for nonprofit employers and federal agencies; 28% of respondents who worked for these types of employers said they “could and would” telework, if given the opportunity, compared with 10% of private sector employees and 23% who worked for a state or local employer. It is notable, however, that about half (49%) of private sector respondents and 65% of state and local government respondents said their jobs were not telework-appropriate. This was compared with only about one-third of federal employees (36%) and three in ten (29%) non-profit employees who reported that telework would not be a feasible option for their work.
Table 12
Summary of Current and Potential Telework
All Respondents who were not Self-Employed/Work at Home

<table>
<thead>
<tr>
<th>Telework Status</th>
<th>All Region (n = 5,892)</th>
<th>Lived in Arlington (n = 530)</th>
<th>Worked in Arlington (n = 422)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently teleworking</td>
<td>27%</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>Not teleworking</td>
<td>73%</td>
<td>70%</td>
<td>70%</td>
</tr>
<tr>
<td>- Job responsibilities allow telework and INTERESTED in telework (&quot;could and would&quot;)</td>
<td>18%</td>
<td>17%</td>
<td>19%</td>
</tr>
<tr>
<td>- Job responsibilities allow telework, but NOT INTERESTED in telework</td>
<td>11%</td>
<td>12%</td>
<td>6%</td>
</tr>
<tr>
<td>- Job responsibilities would NOT allow telework</td>
<td>44%</td>
<td>41%</td>
<td>45%</td>
</tr>
</tbody>
</table>

Sources of Telework Information
Respondents who teleworked were asked how they had learned about telework, then were specifically asked if they had received telework information from Commuter Connections or the Metropolitan Washington Council of Governments (MWCOG). The most frequently mentioned sources are shown in Figure 15.

Figure 15
Sources of Information About Telework - 2013
(Lived in Arlington n = 166, Worked in Arlington n = 125)
Lived in Arlington – The largest source of information for Arlington residents, was “special program at work / from my employer,” named by 72% of respondents. This percentage has remained essentially the same since 2004. About 14% of Arlington resident respondents who teleworked said they “initiated request on my own” and 8% learned of telework through “word of mouth.” One in ten named Commuter Connections as their source of telework information.

Worked in Arlington – Telework information sources for respondents who work in Arlington were consistent with those of Arlington resident teleworkers. The most often named telework information source for respondents who worked in Arlington also was the employer; 70% mentioned a “special program at work/employer” as the source of their telework information, approximately the same percentage as noted this source in 2010 (73%). But this source has grown significantly since 2004, when only 49% of teleworkers who work in Arlington named the employer as the source of information. In 2007, 53% mentioned the employer.

Telework Patterns

A sizable share of Arlington teleworkers started teleworking recently; 37% of teleworkers who lived in Arlington and 47% who worked in Arlington started teleworking with the past two years.

The availability of telework arrangements for employees who work in Arlington and the use of formal telework arrangements have both grown since 2004. In 2013, 60% of Arlington workers reported that their employer permitted some telework, compared with 38% in 2004. And in 2013, 38% of Arlington worker respondents said the telework program was formal, compared with just 19% formal programs in 2004.

On average, Arlington resident teleworkers teleworked about 1.3 days per week; teleworkers who worked in Arlington teleworked 1.5 days per week.

Respondents who said they teleworked, at least occasionally were asked a series of questions about their telework characteristics including: length of time teleworking, use of informal or formal telecommute arrangement, telecommute location, and frequency of telework.

Length of Time Teleworking

About one-third of Arlington residents who telework started teleworking within the past two years and 12% started within the past year (Figure 16). One-third had been teleworking more than five years. On average, respondent respondents had been teleworking about 59 months.

Among respondents who worked in Arlington; 47% started telework in the past two years and 16% started telework more than five years ago. On average, these respondents had been telework about 43 months.
Formal or Informal Telework Arrangement

Teleworkers were asked if they worked under a formal telework program or if it was an informal arrangement between the teleworker and the supervisor. Respondents who did not telework were asked if their employer permitted employees to telework, either under a formal program or informally, even though the respondent did not use it. As shown in Figure 17, more than half (51%) of all regional respondents said their employer offered some telework arrangement, with 30% reporting a formal arrangement and 21% saying the arrangement was informal.

Lived in Arlington – A slightly higher share of commuters who lived in Arlington reported telework availability than was noted for the region overall; 56% said their employer had either a formal telework program (34%) or permitted employees to telework under an informal arrangement between an employee and a supervisor (22%).

Worked in Arlington – Telework opportunities were greater still for respondents who worked in Arlington; 38% said their employers had a formal telework program and 22% said their employers permitted employees to telework under an informal arrangement. The remaining 40% said their employers did not have any telework program or that they didn’t know about any program.
Telework Arrangements 2004 through 2013 – Figure 18 shows the incidence of telework arrangement in 2004, 2007, 2010, and 2013 for respondents who worked in Arlington. The share of employers that offered or permitted some form of telework increased between 2004 and 2013, with a corresponding decrease in the share of employers that did not offer any telework opportunities. In the 2004 SOC survey, only 38% of Arlington employee respondents said their employer allowed telework. In 2007, the share had risen to 47%. By 2010, 58% of respondents said their employer offered some telework option and in 2013, 60% offered or permitted telework.
As the figure also indicates, there has been little change in the availability of informal telework since 2004, but growth has occurred in formal telework arrangements. In 2004, telework availability was evenly divided between formal and informal arrangements. In 2010 and 2013, the proportion of formal programs was considerably different, with formal programs clearly dominating over informal arrangements.

**Potential for Telework Growth by Availability of Telework Program** – As noted earlier in this section, about two in ten commuters who worked Arlington said they did not telework now but would be interested in teleworking. It might be expected that these respondents would disproportionately work for employers that did not currently permit telework.

But as shown by Figure 19, the percentages of Arlington workers who were not teleworking but were interested in telework were quite similar across the three telework availability categories. Seventeen percent of respondents who worked for an Arlington organization with no telework program expressed interest, compared with 19% of respondents who worked for organizations with a formal telework program and 25% of respondents at Arlington organizations that permitted informal telework arrangements. The shares of respondents who said their job responsibilities would be compatible with telework but who were not interested in telework also were similar across the three groups.

The most notable comparison is for the share of respondents who said their job was not compatible with telework, that is, they could accomplish their job requirements only at their main work place. More than three-quarters (78%) of respondents who worked for organizations where there was no telework program of any type reported that their job was incompatible with telework, compared with 22% of respondents where a formal telework program was in place and 22% where telework was permitted informally. This suggests that most of the organizations that did not permit telework were responding to the realities of their work requirements, rather than simply resistant to telework.

**Figure 19**

*Telework Status by Formal or Informal Telework Arrangements – Worked in Arlington*

(Formal n = 160, Informal n = 97, No program n = 148)
Telework Frequency

**Lived in Arlington** – Two in ten (20%) Arlington resident teleworkers said they telework less than once per month and three in ten (31%) teleworked a few times each month (Figure 20). The remaining 49% teleworked at least one day per week; 20% teleworked most of their work days (three or more days per week).

**Figure 20**
Frequency of Telework

**Lived in Arlington** (n = 166)
Average 1.3 days per week

**Worked in Arlington** (n = 121)
Average 1.5 days per week

**Worked in Arlington** – The split between frequent and infrequent telework was similar for respondents who worked in Arlington; 54% teleworked less than one day per week and 46% teleworked one or more days per week. One-quarter teleworked three or more days per week.

The average telecommute frequency was higher for respondents who worked in Arlington (1.5 days per week) than for those who lived in Arlington (1.3 days per week). Arlington workers also teleworked more often than the 1.3 day per week frequency for teleworkers region-wide.

Note that the average days per week frequency was lower than the frequency indicated earlier (Table 6) for respondents who teleworked during the survey week (2.4 days per week for live in Arlington and 2.7 days per week for work in Arlington). But the overall telework frequency presented in this section accounts for both the actual frequency of respondents who teleworked during the survey week and an expected frequency for respondents who did not telework during the survey week, but who telework occasionally (e.g., less than once per week).

**Telework Locations**

Nearly all of the Arlington teleworkers telework exclusively from home; 98% of Arlington resident teleworkers and 99% of teleworkers who work in Arlington telework from home. The remaining respondents said they telework from a satellite office provided by the employer, a telework center, or a community or retail location.
SECTION 5 AVAILABILITY OF TRANSPORTATION OPTIONS

The third major section of the State of the Commute Survey examined the availability of transportation options and facilities, such as transit, High Occupancy Vehicle lanes, and Park & Ride lots.

Nine in ten commuters who lived in Arlington said public transportation service operated in the area where they lived and where they worked. A similar percentage of respondents who worked in Arlington said bus and/or train service operated where they lived and worked.

Eight in ten Arlington residents said they lived less than one-half mile from a bus stop and 93% said they lived less than one mile away. Arlington workers’ transit access at home was less convenient, but 67% still lived less than one mile from a bus stop and 21% lived less than one mile from a train station.

Commuters who worked in Arlington were more likely to have HOV lanes available on their commute route (50%) than were either commuters who lived in Arlington (31%) or all regional commuters (30%). They also were more likely to use HOV lanes for commuting.

Commuters who lived in Arlington were much less likely to say that they knew locations of Park & Ride lots along their trip to work (19%) than were either all regional commuters (38%) or commuters who worked in Arlington (39%).

Public Transportation

Respondents who worked outside their homes were asked if bus and/or train service was available in the areas where they lived and where they worked. Respondents also were asked how far their homes are from the nearest bus stop and the nearest train station. Table 13 presents the results for the first question for respondents who lived in Arlington and those who worked in Arlington.

Bus and Train Service Available by Home and Work Area

Lived in Arlington – Nearly all (96%) Arlington resident respondents said that some form of public transit was available in their home area. Six in ten (62%) said both bus and train services were provided, 3% said bus service was available but not train, and 3% said train service was available, but not bus. The remaining 4% of respondents said either that no bus or train companies provided service or that they didn’t know of any service.

The percentages who said that transit service was available in their work area were approximately the same as for the home area. About two-thirds (65%) said both bus and train services were available, about two in ten (21%) said they had access only to bus service, and 5% reported access only to train services. Nine percent said no transit service was offered where they worked.

Worked in Arlington – Nine in ten (90%) respondents who worked in Arlington said some public transportation provided service in the area where they lived. Half (50%) knew of both bus and train service, about four in ten (38%) knew of bus service but not train, and 3% said they knew of train service but not bus service. One in ten Arlington workers said that no bus or train companies provided service in their home area or that they didn’t know of any service.
Nearly all (96%) Arlington workers reported that some form of transit operated in their work area. About three-quarters cited both bus and train service, two in ten (19%) said only bus service was available, and 3% said they knew only that train service was provided. The remaining 4% said that no transit companies operated either bus or rail service in their work area.

**Table 13**  
**Transit Service Operating in Home Area and Work Areas**

<table>
<thead>
<tr>
<th>Transit Service Operating</th>
<th>Lived in Arlington</th>
<th>Worked in Arlington</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Home Area (n = 519)</td>
<td>Work Area (n = 519)</td>
</tr>
<tr>
<td>Bus and train</td>
<td>62%</td>
<td>65%</td>
</tr>
<tr>
<td>Bus only - no train service</td>
<td>31%</td>
<td>21%</td>
</tr>
<tr>
<td>Train only – No bus service</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>No transit in area / don’t know</td>
<td>4%</td>
<td>9%</td>
</tr>
</tbody>
</table>

**Distance to Bus Stop and Train Stations**

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 was provided” and others might have excluded them from their assessment.

**Lived in Arlington** — 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 21 displays the distribution of access distance for Arlington residents. Eight in ten Arlington residents said they lived less than one-half mile from a bus stop and 93% said they lived less than one mile away. Among respondents who could provide a distance to a bus stop, the average distance was 0.3 miles.

Train stations were quite a bit farther away for most Arlington residents. On average, respondents who provided a distance lived 2.0 miles away from a Metrorail or commuter rail station. Only 16% lived within one-half mile of a train station and 35% lived less than one mile.

**Worked in Arlington** — Arlington workers’ transit access at home was less convenient. About two-thirds (67%) lived less than one mile from a bus stop and 21% lived less than one mile from a train station. These percentages were essentially the same as for all workers in the region; 65% of workers region-wide lived less than one mile from a bus stop and 17% lived less than one mile from a train station.
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. Three in ten (30%) regional commuters said there was a special lane along their route to work (Figure 22). One-third of these commuters used these lanes. This equated to about 10% of all regional commuters.
**Lived in Arlington** – Commuters who lived in Arlington reported similar HOV/express lane availability and use as did all regional commuters; 31% said a lane were available and 10% of Arlington residents said they used a lane. Commuters who worked in Arlington noted much higher HOV/express lane availability and use. Half (50%) of these commuters reported lane availability and 18% said they used an HOV/express lane.

**Worked in Arlington** – Six in ten (62%) Arlington workers who used the lanes for commuting said availability of the lane influenced their decision to carpool, vanpool, or ride transit for their commute. This was nearly twice the percentage of Arlington resident HOV users (33%) who said they had influenced their mode choice. But Arlington workers who regularly used the HOV/express lane estimated that using the lane saved them an average of 26 minutes for each one-way trip, twice the 12-minute saving that Arlington residents received when they used the lanes.

**HOV/Express Lane Availability and Use by Residence Jurisdiction** – Table 14 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 14
**Availability and Use of HOV / Express Lanes**
by Residence Jurisdiction

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

* Respondents in the jurisdiction who have an HOV / express lane available along their route to work.
The last column of Table 14 illustrates 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.

**Park & Ride Lots**

Table 15 shows commuters’ awareness of the locations of Park & Ride lots along their route to work. Thirty-eight percent of respondents across the region said they knew the locations of P & R lots along their commuting route. Another four in ten (40%) said they did not know the locations. The remaining (22%) said there were no P & R lots along their route to work.

<table>
<thead>
<tr>
<th>Know Park &amp; Ride Location</th>
<th>All region (n = 5,552)</th>
<th>Lived in Arlington (n = 519)</th>
<th>Worked in Arlington (n = 421)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, know location of P&amp;R</td>
<td>38%</td>
<td>19%</td>
<td>39%</td>
</tr>
<tr>
<td>No, don’t know P&amp;R location</td>
<td>40%</td>
<td>44%</td>
<td>38%</td>
</tr>
<tr>
<td>No P&amp;R available</td>
<td>22%</td>
<td>37%</td>
<td>23%</td>
</tr>
</tbody>
</table>

Awareness of Park & Ride lots among commuters who worked in Arlington was the same as for all regional commuters; 39% knew the locations of lots. Arlington residents were much less likely to say they knew Park & Ride lot locations. Only two in ten said they knew the locations.

The lower awareness among Arlington residents could be because more of these commuters do not have any P&R lot available. But it is also likely that awareness of specific locations could be low because a much larger share of Arlington resident commuters walk to the location where they start their transit or carpool trip, thus do not need to park at a Park & Ride lot. Only about 1% of commuters who lived in Arlington said they had used a P&R lot when commuting during the past year. This was less than the 7% of all regional commuters who had used P&R lots and much less than the 13% of commuters who worked in Arlington who said they used a P&R lot when commuting during the past year.
SECTION 6 ATTITUDES TOWARD TRANSPORTATION OPTIONS AND TRANSPORTATION SATISFACTION

Commuter Connections included a series of questions in the 2013 SOC survey to explore commuters’ impressions of their commute and the role transportation plays in creating a livable region. These questions focused on:

- Commute ease compared to last year
- Satisfaction with commute
- Satisfaction with transportation
- Barriers to use of alternative modes
- Benefits of ridesharing

Ease of Commute

Commuters who lived or worked in Arlington were about as likely as were commuters region-wide to report a more difficult commute than last year; 23% of regional respondents, 20% of Arlington resident commuters, and 21% of commuters who work in Arlington gave this response.

The result for Arlington workers continues a trend of improvement over the past four SOC surveys. In 2004, 35% of Arlington workers reported a more difficult commute. In 2007 and 2010, the percentages were 25% and 27%, respectively.

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. Region-wide, 60% of respondents said their commute was about the same as a year ago (Figure 23). About a quarter (23%) said their commute was more difficult and 17% said their commute was easier. The results for Arlington respondents were similar to those for the region; 20% of respondents who lived in Arlington and 21% of respondents who worked in Arlington said they had a more difficult commute. About two in ten said their commute was easier than last year.

Figure 23
Commute Easier, More Difficult, or Same as Last Year
(All region n = 5,717, Lived in Arlington n = 507, Worked in Arlington n = 409)
Influence of Changes in Residence or Work Location on Commute Ease

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. About 17% of commuters region-wide, 17% of Arlington resident commuters, and 23% of commuters who worked in Arlington made a change.

Table 16 presents results of commute ease for respondents who did and did not make a move. About one in ten respondents who made a move said they moved from a location outside the Washington area. Because these respondents could not provide a before-the-move comparison, they were excluded from the base for the table.

Region-wide – 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. Across the region, 65% of respondents who did not move said their commutes were about the same, 12% said their commutes had improved and 22% said they had gotten more difficult.

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

Table 16

<table>
<thead>
<tr>
<th>Changed Home or Work Location</th>
<th>Commute Easier</th>
<th>Commute About the Same</th>
<th>Commute More Difficult</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Region</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Didn’t move (n = 4,800)</td>
<td>12%</td>
<td>65%</td>
<td>22%</td>
</tr>
<tr>
<td>Moved (n = 927)</td>
<td>41%</td>
<td>33%</td>
<td>26%</td>
</tr>
<tr>
<td>Lived in Arlington</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Didn’t move (n = 422)</td>
<td>14%</td>
<td>67%</td>
<td>19%</td>
</tr>
<tr>
<td>Moved (n = 84)</td>
<td>41%</td>
<td>34%</td>
<td>25%</td>
</tr>
<tr>
<td>Worked in Arlington</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Didn’t move (n = 333)</td>
<td>19%</td>
<td>60%</td>
<td>21%</td>
</tr>
<tr>
<td>Moved (n = 76)</td>
<td>30%</td>
<td>48%</td>
<td>22%</td>
</tr>
</tbody>
</table>

Lived in Arlington – Arlington residents’ results were very similar to those for the region overall. Two-thirds (67%) of commuters who lived in Arlington and who had not moved said their commutes were about the same as last year. Fourteen percent said their commutes were easier and 19% said their commutes were more difficult.

Among resident commuters who had moved, only 34% reported a stable commute. One-quarter (25%) reported a more difficult commute, similar to the percentage of residents who had not moved. But a much higher percentage
(41%) who moved said their commutes were easier. This suggests that the move might have played a role in improving or worsening the commute, but that more often the move improved the commute.

**Worked in Arlington** – The results also were similar for respondents who worked in Arlington. Among those who had not moved, 21% said their commute was worse and 19% said it was easier. But among those who had moved, 30% said their commute was easier.

**Commuting as a Factor in Location Change Decision**
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 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.

As illustrated in Table 17, 20% of Arlington residents and 16% of Arlington workers who made a location change said they considered the length or ease of their new commute as one factor in their location decision. A smaller share of respondents considered the commuting options that would be available to them for the new commute.

**Table 17**

<table>
<thead>
<tr>
<th>Factors Considered</th>
<th>Lived in Arlington (n = 94)</th>
<th>Worked in Arlington (n = 102)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Commute-related reasons</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length or ease of commute</td>
<td>20%</td>
<td>16%</td>
</tr>
<tr>
<td>Commuting options that would be available</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Job reasons</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career advancement</td>
<td>24%</td>
<td>22%</td>
</tr>
<tr>
<td>Job requirements / job transfer / job ended</td>
<td>18%</td>
<td>23%</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>13%</td>
<td>2%</td>
</tr>
<tr>
<td>Income</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Personal / residential reasons</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closeness to family / friends</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>Quality / features of neighborhood</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>Other residential factors</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Cost of house</td>
<td>6%</td>
<td>13%</td>
</tr>
<tr>
<td>Other personal factors (marriage, divorce, etc.)</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>Cost of living</td>
<td>1%</td>
<td>6%</td>
</tr>
</tbody>
</table>
Arlington residents and Arlington workers generally gave similar responses for the factors they had considered in making the home or job change, except that respondents who lived in Arlington were much more concerned with job satisfaction (13%) than were respondents who worked in Arlington (2%) and somewhat more concerned with being close to family and friends and with the quality or features of the neighborhood. By contrast, Arlington residents were less concerned with the cost of housing and the cost of living.

**Importance of Commute Factors Relative to Other Factors** – Respondents who made a move also were asked how important commuting factors had been to their decisions, relative to the other factors they considered (Table 18). Region-wide, almost three in ten (28%) said commute ease was more important than other factors and nearly half (46%) said they were about equally important. Only about a quarter said commuting factors were less important.

Arlington residents’ results were similar to those for the region. The results for Arlington workers, however, were quite different. A much larger share (44%) of these respondents reported that commute factors had been an important consideration. But a larger share (35%) also said commute ease had been less important. This could suggest that Arlington was considered a generally easy location to reach or perhaps that Arlington or the employer offered sufficient enticements to outweigh commuting as a concern.

### Table 18

<table>
<thead>
<tr>
<th>Importance of Commute Ease</th>
<th>All Region (n = 850)</th>
<th>Lived in Arlington (n = 82)</th>
<th>Worked in Arlington (n = 76)</th>
</tr>
</thead>
<tbody>
<tr>
<td>More important than other factors</td>
<td>28%</td>
<td>24%</td>
<td>44%</td>
</tr>
<tr>
<td>About the same importance as other factors</td>
<td>46%</td>
<td>55%</td>
<td>21%</td>
</tr>
<tr>
<td>Less important than other factors</td>
<td>26%</td>
<td>21%</td>
<td>35%</td>
</tr>
</tbody>
</table>

**Commute and Transportation Satisfaction**

Seventy-one percent of Arlington residents said they were satisfied with their commute, higher than the 63% for all regional respondents. Arlington residents’ commute satisfaction was among the highest in the Washington metropolitan region. Commuters who worked in Arlington were slightly less satisfied; 66% said they were satisfied.

Commuters region-wide generally were less satisfied with transportation in the region than with their particular commute. But Arlington residents again gave higher ratings than did respondents across the region; 56% of Arlington residents said they were satisfied with the regional transportation system, compared with 49% of respondents region-wide.
Commuter Satisfaction

The 2013 survey included a question that had been added in 2010, asking commuters to rate how satisfied they were with their trip to work. As shown in Figure 24, 64% of respondents region-wide 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%).

Commuters who lived in Arlington were more satisfied with their commutes; 72% of Arlington resident commuters rated their commute satisfaction as a 4 or 5. Two in ten (18%) gave the middle rating of 3. One in ten rated their satisfaction as either a 1 – not at all satisfied (2%) or 2 (8%).

Respondents who worked in Arlington gave similar commute satisfaction ratings as did commuters region-wide; 66% rated their commute satisfaction as a 4 or 5 and 16% gave a rating of 3. But nearly two in ten were not satisfied, indicted by ratings of 1 (4%) or 2 (14%).

**Figure 24**

*Ratings for Satisfaction with Commute*

(Region n = 5,692, Live in Arlington n = 518, Work in Arlington n = 421)

![Diagram showing commute satisfaction ratings](diagram)

*Satisfaction by Home Jurisdiction* – Commute satisfaction differed by where in the region the respondent lived. Figure 25 presents the percentages of residents of various jurisdictions who gave a rating of 4 or 5 (very satisfied) for commute satisfaction. Region-wide, 64% of respondents were satisfied with their commute.

Respondents who lived in the central part of the region, particularly in the District of Columbia, Alexandria, and Arlington, were notably more satisfied with their commute than were respondents who live farther from the regional core. Seventy-three percent of District of Columbia and Alexandria residents and 72% of Arlington residents were satisfied, compared with fewer than two-thirds of residents of other jurisdictions. Only about six in ten (62%) residents of Fairfax County, Arlington’s neighbor to the west, rated their commute as a 4 or 5.
Transportation Satisfaction

The 2013 survey included a question to explore respondents’ satisfaction with the transportation network in the Washington metro region. Commuters region-wide generally were less satisfied with transportation in the region than with their particular commute (Figure 26). Only 44% said they were satisfied (rating of 4 or 5 on a 5-point scale) and more than a quarter (25%) said they were not satisfied (rating of 1 or 2).

Ratings for respondents who worked in Arlington were slightly higher than for respondents region-wide, with 49% reporting a satisfaction level of 4 or 5. But Arlington residents gave higher ratings than did either commuters across the region or commuters who worked in Arlington. Fifty-six percent of respondents who lived in Arlington said they were satisfied with the regional transportation system and 22% rated their satisfaction a 5.
Transportation Satisfaction by Commute Mode

Respondents who lived in Arlington gave about similar ratings for transportation satisfaction, regardless of the type of transportation they primarily used to get to work (Figure 27). Train riders gave slightly lower ratings, but the apparent differences shown in the figure were not statistically significant.

Figure 26
Ratings for Transportation Satisfaction
(All region n = 6,486, Lived in Arlington n = 513, Worked in Arlington n = 415)

<table>
<thead>
<tr>
<th>Rating</th>
<th>All region</th>
<th>Lived in Arlington</th>
<th>Worked in Arlington</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 - Very satisfied</td>
<td>16%</td>
<td>22%</td>
<td>17%</td>
</tr>
<tr>
<td>4</td>
<td>28%</td>
<td>34%</td>
<td>32%</td>
</tr>
<tr>
<td>3</td>
<td>31%</td>
<td>28%</td>
<td>33%</td>
</tr>
<tr>
<td>2</td>
<td>15%</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>1 - Not at all satisfied</td>
<td>4%</td>
<td>6%</td>
<td></td>
</tr>
</tbody>
</table>

Figure 27
Ratings for Transportation Satisfaction – Rating of 4 or 5
By Primary Commute Mode
(Lived in Arlington: Drive alone n = 276, Carpool/vanpool n = 31, Bus n = 45, Train n = 104, Bike/walk n = 35)
(Worked in Arlington: Drive alone n = 220, Carpool/vanpool n = 34, Bus n = 51, Train n = 59, Bike/walk n = 32)
Among respondents who worked in Arlington, however, those who drove alone and those who carpooled / vanpooled gave notably lowest ratings for transportation satisfaction; about four in ten of respondents in these two mode groups gave a satisfaction rating of 4 or 5, compared with about seven in ten transit riders and 56% of respondents who biked or walked to work. One common trait of these other modes is that the commuters do not need to drive, so they can avoid congestion.

**Transportation Satisfaction by Commute Satisfaction**

Overall, 72% of Arlington residents said they were satisfied with their commute, but only 56% were satisfied with the regional transportation system. This implies that most commuters had found an acceptable commute option, but that many still felt the regional transportation was lacking, perhaps because they were considering both work and non-work travel in making their transportation satisfaction ratings.

Respondents’ satisfaction with regional transportation appeared somewhat related to their satisfaction with their commute, however (Figure 28). Among respondents who were dissatisfied with their trip to work (1 or 2), 52% also were dissatisfied with regional transportation and about one-third were satisfied. Conversely, among respondents who rated their commute as a 4 or 5 (satisfied), 67% reported being satisfied with regional transportation.

**Barriers to Ridesharing and Use of Public Transit**

*The top reasons why Arlington residents said they did not carpool or vanpool included: don’t know anyone to ride with, work schedule is irregular, and live close to work.*

*Residents’ reasons for not using transit included that there was no service available and that transit takes too much time. These were also the top two reasons named by Arlington workers. Small shares of respondents noted concerns or barriers related to alternative mode service characteristics.*
Respondents who primarily drove to work alone were asked why they did not use carpool, vanpool, or public transit to get to work. Table 19 shows reasons mentioned by commuters who lived in Arlington and those who worked in Arlington for not carpooling or vanpooling. Table 20 presents reasons named for not using transit. In both tables, the reasons are grouped into three reason categories: service availability, service characteristics, and personal preferences/needs.

Carpool / Vanpool Barriers
The most common reason, cited by more than four in ten Arlington residents and Arlington workers was that they don’t know anyone with whom to carpool or vanpool. Only a small share of respondents noted concerns or barriers related to service characteristics of ridesharing. The most common concern here was that carpooling and vanpooling take too much time or that the respondents don’t like to ride with strangers, but these were noted by only about one in twenty respondents.

Respondents noted greater barriers related to personal preferences/needs. The most common reason was an irregular or early work schedule, cited by 21% of residents and 22% of respondents who worked in Arlington. Other common reasons were that respondents lived too close to work or to other transportation modes to make ridesharing attractive, preferring transit, or needing or wanting use of a personal vehicle for work or personal travel.

### Table 19
**Reasons for Not Using Carpool/Vanpool to Work – Lived in Arlington and Worked in Arlington**
(Multiple responses permitted)

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Lived in Arlington (n = 479)</th>
<th>Worked in Arlington (n = 377)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Availability</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don’t know anyone to carpool/vanpool with</td>
<td>42%</td>
<td>46%</td>
</tr>
<tr>
<td><strong>Service Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Takes too much time</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>Doesn’t save time</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Don’t like to ride with strangers, prefer to be alone</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>Carpool / vanpool partners could be unreliable</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Personal Preferences / Needs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work schedule irregular / go to work early</td>
<td>21%</td>
<td>22%</td>
</tr>
<tr>
<td>Live close to work, close to other transportation</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>Prefer transit, transit more convenient</td>
<td>7%</td>
<td>4%</td>
</tr>
<tr>
<td>Need my car for work</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td>Need my car before/after work</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td>Want to get exercise</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>8%</td>
<td>8%</td>
</tr>
</tbody>
</table>
Transit Barriers
Respondents who did not use a bus or train for commuting were asked why they did not use transit. Table 20 shows respondents’ barriers to transit use, grouped in the same three reason categories noted for ridesharing: service availability, service characteristics, and personal preferences/needs.

Table 20
Reasons for Not Riding Transit to Work – Lived in Arlington and Worked in Arlington
(Multiple responses permitted)

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Lived in Arlington (n = 349)</th>
<th>Worked in Arlington (n = 294)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Availability *</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No train service available in home/work area</td>
<td>55%</td>
<td>60%</td>
</tr>
<tr>
<td>No bus service available in home/work area</td>
<td>33%</td>
<td>32%</td>
</tr>
<tr>
<td>Service Characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Takes too much time, distance to far</td>
<td>35%</td>
<td>30%</td>
</tr>
<tr>
<td>Bus/train could be unreliable/late</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>Too expensive</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td>Have to transfer/too many transfers</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Have to wait too long for service</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Personal Preferences/Needs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Need my car for work</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>Work schedule irregular</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Need car before/after work</td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td>Commute is too short</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Trip is too long/distance too far</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Prefer to drive, want freedom / flexibility</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>8%</td>
<td>11%</td>
</tr>
</tbody>
</table>

* Respondents who said no train or bus service was available also were permitted to answer other reasons

Both groups of Arlington respondents cited reasons in each category. About six in ten Arlington residents and a similar share of Arlington workers said they did not use transit because they did not have train service available; one-third in each group said bus service was not available in either the home or work area.

Respondents who did 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 35% of Arlington residents and 30% of Arlington workers. Small percentages of respondents noted issues with reliability, cost, or wait time.

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 commute was too short or too long.
Benefits of Alternative Mode Use

About two-thirds of Arlington respondents said society benefits from use of alternative modes through reduced traffic/congestion and four in ten said reduced air pollution was a benefit.

Both Arlington residents and Arlington workers who used alternative modes said they personally benefitted from using these modes. Saving money and reducing stress were primary benefits. Arlington residents who used alternative modes also noted being able to use time productively and get exercise or health benefits. Respondents who worked in Arlington said their alternative mode use allowed them to reduce wear and tear on a personal vehicle.

Knowing the barriers that must be overcome to use of alternative modes is only part of understanding travel choice motivations. Questions also were asked in 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 used alternative modes were asked 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, 85% of respondents who lived in Arlington and 88% of respondents who worked in Arlington named at least one benefit. Arlington residents and Arlington workers gave essentially the same responses to this question (Figure 29).

About two-thirds of respondents in both Arlington groups said that use of alternative modes could reduce traffic congestion. Respondents also recognized the societal value of environmental sustainability; 42% of Arlington residents and 39% of Arlington workers said it could reduce pollution or help the environment, about one in ten said it could save energy and about one in ten cited reduced greenhouse gases as a societal benefit. About one in twenty noted other societal benefits.
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, 93% of Arlington resident respondents and 95% of respondents who worked in Arlington named at least one benefit. Figure 30 details the responses to this question.

**Lived in Arlington** – Saving money topped the list of personal benefit for Arlington residents, by a substantial margin; 42% cited this benefit. A second tier of responses, named by about two in ten residents, were that alternative modes help commuters avoid stress or relax (25%), use time productively (19%), and get exercise or health benefits (17%). About one in ten residents said using alternative modes helped them arrive at work on time (11%) and avoid the need for a car (11%). Smaller shares of residents named other benefits.

**Worked in Arlington** – Respondents who worked in Arlington generally named similar benefits to those cited by residents, although with slightly different priorities. Saving money was still a top priority (35%), but an equal share of Arlington workers said using alternative modes allowed them to avoid stress or relax (35%), a response named by only one-quarter of residents. Respondents who worked in Arlington also were more likely than were residents to say their alternative mode use benefitted them by reducing wear and tear on a car (11%); only 5% of Arlington residents gave this response. Arlington workers were less likely to say they benefitted by getting exercise (12%) than were residents (18%). Residents’ higher exercise/health benefit likely was due to their higher use of bicycling and walking when compared with Arlington workers.
**Differences in Personal Benefits by Primary Commute Mode** – Respondents who worked in Arlington who used different alternative modes for their commute reported receiving different personal benefits, as shown in Table 21. All Arlington workers who used alternative modes reported saving money, but carpoolers/vanpoolers and bike/walk commuters named saving money at a statistically higher rate than did transit riders.

Carpoolers/vanpoolers reported several other benefits at a higher rate than did other alternative mode users: less wear and tear, arriving at work on time, saving time, and having companionship during their commute. Transit riders mentioned being able to use travel time productively more often than did either carpool/vanpool riders or bikers/walkers. Bus riders and bikers/walkers said they benefitted by not needing a car. Commuters who biked or walked to work overwhelmingly noted getting exercise as a benefit of this mode. The results for Arlington residents who used alternative modes were very similar to those for Arlington workers.
Table 21
Personal Benefits of Alternative Mode Use By Primary Commute Mode
Worked in Arlington
(Shaded percentages indicate statistically significant higher responses)

<table>
<thead>
<tr>
<th>Personal Benefit</th>
<th>Carpool/Vanpool (n = 39)</th>
<th>Bus/Train (n = 121)</th>
<th>Bike/Walk (n = 33)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save money</td>
<td>44%</td>
<td>29%</td>
<td>53%</td>
</tr>
<tr>
<td>Avoid stress, relax</td>
<td>25%</td>
<td>39%</td>
<td>32%</td>
</tr>
<tr>
<td>Less wear and tear on car</td>
<td>23%</td>
<td>8%</td>
<td>3%</td>
</tr>
<tr>
<td>Arrive at work on time</td>
<td>22%</td>
<td>9%</td>
<td>17%</td>
</tr>
<tr>
<td>Save time, travel faster</td>
<td>19%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Have companionship during commute</td>
<td>17%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Use travel time productively</td>
<td>1%</td>
<td>23%</td>
<td>8%</td>
</tr>
<tr>
<td>No need for a car</td>
<td>0%</td>
<td>11%</td>
<td>14%</td>
</tr>
<tr>
<td>Get exercise</td>
<td>0%</td>
<td>6%</td>
<td>65%</td>
</tr>
</tbody>
</table>

Productive Use of Personal Travel Time
The third question is this series about travel benefits explored the idea that commuters who use alternative modes could make productive use of their travel time. Carpoolers, vanpoolers, and transit riders were asked how often they read or wrote work-related material or checked work messages on the way to work. Having time to catch up on work tasks could make their arrival at the worksite less stressful. As shown in Figure 31, one-third of these commuters performed work-related tasks during the commute; 19% performed work-related tasks “most days” and 13% performed work-related tasks “some days.” Among Arlington resident commuters, the percentages were even higher; 30% performed work-related tasks “most days” and 15% performed these tasks “some days.”

Figure 31
Frequency of Work-Related Tasks During Commute Time – Worked in Arlington
(n = 162, Asked only of alternative mode users)
SECTION 7 AWARENESS OF COMMUTE ADVERTISING AND ASSISTANCE

Commute Advertising Recall

About two-thirds of Arlington resident respondents and a similar percentage of respondents who worked in Arlington said they remembered hearing or seeing commute advertising within the past year.

Four in ten respondents in each group could name a specific message they remembered. Five percent of Arlington residents named either Car Free Diet or Way to Go, two Arlington-specific campaigns.

About six in ten Arlington residents who recalled ads could name the sponsor; 16% named Arlington County Commuter Services.

About a quarter of Arlington respondents who heard or saw ads said they were more likely to consider using an alternative type of transportation after hearing or seeing the ads and 8% tried an alternative mode for their trip to work.

The next set of questions in the survey inquired about respondents’ awareness of commute information advertising. About half (55%) of regional respondents said they had seen, heard, or read advertising about commuting in the year prior to the survey (Figure 32). Higher percentages of Arlington resident respondents (66%) and respondents who worked in Arlington (61%) recalled seeing, hearing, or reading advertising for commute programs.

Figure 32
Advertising Recall
(All Region n = 6,335, Lived in Arlington n = 576, Worked in Arlington n = 474)
Message Recall
Respondents were then asked what messages they recalled from this advertising. Figure 32 also noted that about two in ten respondents in each of the three groups could not cite a specific message, but 37% of all respondents in the region, 43% of Arlington resident respondents, and 40% of respondents who worked in Arlington could name a message. Table 22 lists messages respondents 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.

Table 22
Advertising Messages Recalled
(Shaded percentages indicate statistically significant higher responses)

<table>
<thead>
<tr>
<th>Messages Recalled</th>
<th>All region (n = 3,733)</th>
<th>Lived in Arlington (n = 259)</th>
<th>Worked in Arlington (n = 308)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Ridesharing Messages</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use the bus, train, Metrorail</td>
<td>15%</td>
<td>22%</td>
<td>15%</td>
</tr>
<tr>
<td>It reduces traffic</td>
<td>3%</td>
<td>3%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>It would help the environment</td>
<td>3%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Carpool / vanpool</td>
<td>4%</td>
<td>2%</td>
<td>5%</td>
</tr>
<tr>
<td>It saves money</td>
<td>2%</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>It saves time</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Commute Program/Service Messages</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New trains or buses are coming</td>
<td>7%</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>Bicycle message, ride a bike to work, Capital Bikeshare</td>
<td>3%</td>
<td>7%</td>
<td>10%</td>
</tr>
<tr>
<td>You can call for carpool/vanpool info</td>
<td>8%</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td>Guaranteed Ride Home</td>
<td>5%</td>
<td>5%</td>
<td>8%</td>
</tr>
<tr>
<td>Way to Go, Car Free Diet, give up car for a day</td>
<td>0%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Telework / telework center</td>
<td>3%</td>
<td>2%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Regional commute services available, Commuter Connections</td>
<td>5%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Regional Infrastructure Initiatives</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HOT lanes</td>
<td>7%</td>
<td>4%</td>
<td>9%</td>
</tr>
<tr>
<td>HOV lanes</td>
<td>6%</td>
<td>5%</td>
<td>5%</td>
</tr>
</tbody>
</table>

**General Rideshare Messages** – The top reason noted in all three respondent groups was a general ridesharing message, “use the bus, train, Metrorail,” which was recalled by 22% of Arlington residents, 15% of respondents region-wide, and 15% of commuters who worked in Arlington (15%). Percentage responses were similar for other general rideshare messages across the three groups.

**Commute Program/Service Messages** – Commuters cited several commute program or service messages. About one in twenty respondents in each group had heard that “new trains or buses are coming, recalled that “you can
call for carpool/vanpool information,” and had heard about the regional Guaranteed Ride Home program. One message, related to bicycling, was recalled more by both Arlington groups than by regional commuters generally. And 5% of Arlington residents and 2% of respondents who worked in Arlington noted a specific Arlington advertising campaign, including “Way to Go,” or “Car Free Diet.” These messages were not cited by respondents who lived and worked outside Arlington.

Regional Infrastructure Initiatives – Several commuters mentioned several existing or new regional infrastructure initiatives that have recently been in the news. Topping the list was the High Occupancy Toll (HOT) lanes that recently opened on the Capital Beltway in Virginia; 7% of regional respondents and 9% of respondents who worked in Arlington said they had heard a message about this topic. Arlington residents (4%) were less aware of this message. About one in twenty in each group said they heard a message about HOV lanes.

Recall of Advertisement Sponsor
Among Arlington residents who recalled ads, 60% said they remembered who sponsored the ad. Three in ten (30%) named the Washington Metropolitan Area Transit Authority (WMATA, Metro), but 16% named Arlington County Commuter Services. Five percent said the sponsor was Commuter Connections or MWCOG and 4% mentioned the Virginia Department of Transportation (VDOT).

Among commuters who worked in Arlington, 56% who heard or saw ads remembered the ad sponsor. A quarter (25%) mentioned WMATA/Metro and 9% said the sponsor was Arlington County Commuter Services. One in ten (11%) named Commuter Connections/ MWCOG and 7% mentioned VDOT.

Advertising Sources / Media
Table 23 presents the primary sources or media through which respondents heard, saw, or read commute advertising. The distributions were generally the same for commuters who work in Arlington and commuters region-wide, except that almost twice as many commuters who worked in Arlington (9%) mentioned hearing these messages at work as did commuters region-wide (5%).

Respondents who lived in Arlington were much less likely than were either respondents region-wide or Arlington workers to mention the radio, were much more likely to mention a sign on a transit vehicle or transit stop, and somewhat more likely to cite a newspaper as the source.

<table>
<thead>
<tr>
<th>Advertising Source/Media</th>
<th>All Region (n = 2,457)</th>
<th>Lived in Arlington (n = 259)</th>
<th>Worked in Arlington (n = 205)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio</td>
<td>33%</td>
<td>20%</td>
<td>33%</td>
</tr>
<tr>
<td>Sign on transit vehicle, or at bus stop or Metro station</td>
<td>25%</td>
<td>40%</td>
<td>28%</td>
</tr>
<tr>
<td>Newspaper</td>
<td>20%</td>
<td>26%</td>
<td>17%</td>
</tr>
<tr>
<td>Television</td>
<td>18%</td>
<td>11%</td>
<td>12%</td>
</tr>
<tr>
<td>Billboard/ad on side of the road</td>
<td>9%</td>
<td>10%</td>
<td>14%</td>
</tr>
<tr>
<td>At work</td>
<td>5%</td>
<td>3%</td>
<td>9%</td>
</tr>
<tr>
<td>Postcard in the mail</td>
<td>5%</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td>Website/internet</td>
<td>2%</td>
<td>4%</td>
<td>4%</td>
</tr>
</tbody>
</table>
**Commute Advertising Impact**

Likely to Consider Alternative Modes
Advertising appeared to be influential for some respondents. About a quarter (25%) of all respondents region-wide who recalled commute advertising said they were more likely to consider ridesharing or using public transportation after hearing the advertising. The percentages were similar for Arlington respondents; 27% of respondents who lived in Arlington and 26% of those who worked in Arlington who had seen, heard, or read advertising said that they were more likely to consider alternative modes after seeing or hearing the advertising.

Commute Actions Taken After Hearing / 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 9% of regional respondents who were aware of ads said they took some action. Four percent sought information or services for commuting or registered for a regional or local commute service, but two percent said they tried or started using an alternative mode for commuting.

Both respondents who lived in Arlington and those who worked in Arlington took actions at about the same rate as region-wide; 8% of respondents who lived in Arlington and 8% who worked in Arlington took an action. About half of these respondents said they tried or started using a new alternative mode for commuting. Commuters who tried or started alternative modes equaled about 2% of the total Arlington resident commuters interviewed and 1% of the Arlington workers.

**Awareness and Use of Commute Assistance Resources in the Region**

About two-thirds of Arlington residents and a similar share of commuters who worked in Arlington said they knew a transportation information number or website existed in the Washington region. About a third of commuters in both groups could name a specific resource. Three percent of Arlington residents and 4% of Arlington workers named Arlington County Commuter Services as a source of commute information.

About six in ten workers in the region knew about Commuter Connections. Awareness of Commuter Connections was similarly high among respondents who lived in Arlington and those who worked in Arlington.

**Awareness of Commuter Assistance Numbers / Websites**
The next set of questions in the survey investigated respondents’ knowledge and use of regional commute assistance services. First, respondents were asked if they were aware of a telephone number or website they could use to obtain information on ridesharing, public transportation, HOV lanes, and telework in the Washington region. Six in ten (62%) regional respondents said they knew such a number existed. Slightly higher percentages of respondents who lived in Arlington (67%) and those who work in Arlington (67%) said there was a telephone number or website.

Awareness of regional commute information resources fell across the region and among the two Arlington respondent groups between 2010 and 2013 (Region-wide: 66% in 2010 to 62% in 2013; Live in Arlington: 72% in 2010 to 67% in 2013; Work in Arlington: 75% in 2010 to 67% in 2013). But the 2013 level of 67% awareness for Arlington residents was still higher than the percentages observed in 2007 (52%) and in 2004 (45%). Awareness in 2013 also was higher for respondents who worked in Arlington, although the increase was less dramatic; the 2013 level of 67% was compared with 59% in 2007 and 58% in 2004.
Recall of Web Sites and Phone Numbers

Respondents who had said they knew there was a regional phone number or web site were questioned on their recall of the actual number or website. Arlington respondents were slightly more likely to be aware of a specific resource; 32% of respondents who lived in Arlington and 30% of those who worked in Arlington could name a specific number or web site, compared with 25% of all regional workers.

Table 24 summarizes the awareness of all numbers/web sites, as percentages of the total regional workers, commuters who lived in Arlington, and those who worked in Arlington. The most widely-known numbers or websites named were sponsored by the Washington Metropolitan Area Transit Authority (WMATA) or Metro. Fifteen percent of regional respondents, 23% of respondents who lived in Arlington and 16% of those who worked in Arlington named a WMATA number or website. Arlington County resources were not well known regionally (0.4%), but were named by 3% of Arlington residents and 4% of Arlington workers. Commuter Connections was cited by about equal percentages of respondents regionally (3%), by those who lived in Arlington (2%), and those who worked in Arlington (3%). Many other organizations were named, each by a small percentages of respondents.

<table>
<thead>
<tr>
<th>Number or Web site</th>
<th>All Region (n = 6,335)</th>
<th>Lived in Arlington (n = 576)</th>
<th>Worked in Arlington (n = 474)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not aware of phone number/web site</td>
<td>38%</td>
<td>33%</td>
<td>33%</td>
</tr>
<tr>
<td>Aware phone number/web site exists, but cannot name it</td>
<td>37%</td>
<td>35%</td>
<td>37%</td>
</tr>
<tr>
<td>Aware of phone number/web site and can name it *</td>
<td>25%</td>
<td>32%</td>
<td>30%</td>
</tr>
<tr>
<td>WMATA, Metro</td>
<td>15%</td>
<td>23%</td>
<td>18%</td>
</tr>
<tr>
<td>Commuter Connections / COG</td>
<td>3%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>1-800-745-RIDE (7433), <a href="http://www.commuterconnections.org">www.commuterconnections.org</a>,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arlington County Commuter Services</td>
<td>0.4%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Other**</td>
<td>11%</td>
<td>7%</td>
<td>10%</td>
</tr>
</tbody>
</table>

* Multiple responses permitted
** Each response in the “Other” category mentioned by less than one percent of respondents

Awareness of Commuter Connections Program

The questionnaire also explored respondents’ awareness of the regional Commuter Connections program. Some indications of respondents’ awareness of the program appeared in unprompted questions about regional commute advertising messages, advertising sponsors, and regional commuter information resources.

As noted earlier, 3% of the regional population named Commuter Connections as a regional information source without being prompted with the organization’s name. When asked directly if they had heard of an organization in the Washington region called Commuter Connections, an additional 59% of respondents said they had heard of the program for a total of 62%. Commute Connections was less well-known by respondents who lived in Arlington (53%), but considerably better known among respondents who worked in Arlington (70%).
Awareness of Regional Guaranteed Home (GRH) Program
Since 1997, Commuter Connections has offered Guaranteed Ride Home to overcome alternative mode users’ fear of being stranded 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 of the survey were asked if they knew of a regional GRH program available for commuters who rideshare or use public transportation. About one-quarter (23%) of respondents region-wide replied there was such a program, 36% said there was no such program, and the remaining 41% were unsure. Respondents who worked in Arlington were slightly more likely to know about the program; 31% said they knew of a regional GRH program, 28% said no program existed, and 36% were unsure. Awareness was lower among Arlington residents; 20% said they knew of a regional GRH program.

Respondents who said a regional GRH program existed were asked who sponsored this service. About three in ten (28%) regional respondents gave the correct response, that Commuter Connections or COG / Council of Governments sponsored the program. Seventeen percent named another organization, but more than half (45%) said they didn’t know the sponsor.

About two in ten (21%) Arlington residents knew that Commuter Connections sponsored the program. Seventeen percent named another organization, but more than half (45%) said they didn’t know the sponsor. Among Arlington workers, 34% correctly named Commuter Connections, 16% named another organization. The remaining 54% said they didn’t know the sponsor.

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?”

Lived in Arlington – About three in ten (29%) respondents who lived in Arlington expressed interest in using the service as a driver; 8% said they would be “very likely” to use the service and 21% said they would be “somewhat likely” to use it (Figure 33). Commuters were slightly more interested in using the service as a passenger; 10% were “very likely” and 26% were somewhat likely” to use it for this situation.

Worked in Arlington – The results were nearly identical among respondents who worked in Arlington. Thirty percent who worked in Arlington said they would be interested in using the service as a driver, with 7% saying would be “very likely” to use the service. Almost four in ten said they would be interested in using the service as a passenger, with 12% saying they were “very likely” to use it.
Figure 33
Interest in Instant Carpooling – As Driver and As Rider
(Lived in Arlington n = 576, Worked in Arlington n = 474)

<table>
<thead>
<tr>
<th></th>
<th>Somewhat likely</th>
<th>Very likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lived in Arlington – Likely to use as:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Driver</td>
<td>8%</td>
<td>21%</td>
</tr>
<tr>
<td>Passenger</td>
<td>10%</td>
<td>26%</td>
</tr>
<tr>
<td>Worked in Arlington – Likely to use as:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Driver</td>
<td>7%</td>
<td>23%</td>
</tr>
<tr>
<td>Passenger</td>
<td>12%</td>
<td>26%</td>
</tr>
</tbody>
</table>

Awareness and Use of Local Commute Assistance Programs

About half of Arlington residents and 40% of Arlington workers had heard of ACCS / The Commuter Store and 25% of respondents who lived or worked in Arlington had used an ACCS/Commuter Store service.

Both awareness and use of ACCS among its target audience were higher than for most other local commute agencies in the region.

Finally, respondents were asked about their awareness and use of local jurisdiction programs that delivered commute assistance services in the areas where they lived and where they worked. If they lived and worked in different jurisdictions, they were asked about both the organization in their home area and the organization in their
work area. So these questions examined awareness of programs by respondents who were targeted by the programs. Respondents were not asked about organizations that operated outside the home and work areas.

### Awareness of Local Jurisdiction Services

Figure 34 presents the percentages of respondents who said they had heard of each of the ten organizations, when prompted with the organizations’ names. Awareness ranged from 11% to 56% of respondents who were asked the questions. Five programs were known to at least a third of the target area respondents. Arlington County Commuter Service/The Commuter Store™ had the third highest awareness; 44% of respondents who lived and/or worked in Arlington had heard of either ACCS or The Commuter Store™. Only PRTC/Omni Match, which serves Prince William County, VA and TransIT Services, serving Frederick County, MD had higher awareness scores.

**Figure 34**

*Heard of Local Jurisdiction Commuter Assistance Programs*

(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)

Arlington residents had greater awareness of ACCS/The Commuter Store than did respondents who worked in Arlington. Half (52%) of Arlington residents respondents said they had heard of one of these services, compared with 40% of respondents who worked in Arlington. These percentages were about the same as were observed in 2010; in 2010, 49% of Arlington residents and 38% of Arlington workers were aware of ACCS/The Commuter Store™.
Use of Local Jurisdiction Services

Respondents who knew of a local organization were asked if they had contacted it. Figure 35 presents these results for the nine organizations, listed in the same order they appeared in Figure 34. Use ranged from 4% to 32% of respondents who had heard of the services.

Arlington County had the third highest use percentage; 25% of respondents who lived or worked in Arlington County and knew of ACCS or The Commuter Store™ said they contacted or used one of the programs. One-third of respondents in Prince William County, 28% of respondents in the Loudoun County, and 16% of Frederick County respondents contacted the commuter service organizations in their areas. All other local organizations had lower contact/use levels.

**Figure 35**

**Used Local Jurisdiction Commute Assistance Programs**

**Of Respondents who had Heard of 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)

![Figure 35](image)

It’s notable that, with the exception of ACCS, all of the high use programs were located in outer jurisdictions (Frederick, Loudoun, and Prince William). The relationship to the location in the region could be 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. These three programs also are associated with transit agencies. This connection might result in generally higher visibility for the services or greater variety of services offered to commuters. 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 the local 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.
ACCS is one of few local programs that 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 are primarily associated with Commuter Connections.
SECTION 8 COMMUTER ASSISTANCE SERVICES PROVIDED BY EMPLOYERS

Respondents who lived in Arlington and those who worked in Arlington were more likely than were other regional commuters to have access to commute assistance services. Nearly seven in ten Arlington resident commuters and almost three-quarters of Arlington employees said their employers offered commute assistance services. This was compared with only 57% of all regional commuters who said they had access to these services.

Arlington respondents were more likely than were other commuters to have access to SmarTrip / transit subsidies; 56% of respondents who worked in Arlington and 50% of respondents who lived in Arlington said their employers offered this service, compared with 38% of commuters region-wide.

Respondents who lived in Arlington and those who worked in Arlington were less likely than were other commuters in the region to have free parking at work.

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

Commute Incentives / Benefits and Support Services Offered by Employers

Slightly less than six in ten (57%) respondents region-wide said their employer offered one or more commute financial incentives/benefits or support services (Figure 36). This was higher than the percentages of respondents who reported access to these services in 2007 (54%), but it represented a slight drop from the 2010 result (61%), suggesting some employers had cut back the services they offered to employees, possibly due to recessionary cost-cutting.

Both groups of Arlington respondents were more likely to have access to these services than were commuters region-wide; 68% of respondents who lived in Arlington and 73% of respondents who worked in Arlington said their employers offered one or more commute assistance services. As was noted for the region as a whole, the 2013 availability was a slight decline from the 2010 results (Live in Arlington – 71%, Work in Arlington – 77%), but these percentages were still quite high.
Figure 36
Access to Employer-Provided Incentives/Benefits or Support Services
(2007 - All Region n = 6,071, Lived in Arlington n = 552, Worked in Arlington n = 455)
(2010 - All Region n = 5,899, Lived in Arlington n = 532, Worked in Arlington n = 494)
(2013 - All Region n = 5,524, Lived in Arlington n = 496, Worked in Arlington n = 409)

Arlington Employers vs Employers in Other Jurisdictions
As illustrated in Figure 37, Arlington workers enjoy greater access to worksite commute assistance services than do workers in nearly all parts of the Washington metropolitan region. Workers in the District of Columbia (75%) have equivalent access to that of Arlington workers. By contrast, only about half of respondents who worked in Montgomery County, MD (52%), Alexandria, VA (51%), and Fairfax County, VA (49%). Commute service availability is even lower in other jurisdictions.

Figure 37
Percentage of Workers Reporting Access to Employer-Provided Incentives/Benefits or Support Services:
By Work Location (Arlington and Nearby Jurisdiction)
(District of Columbia n = 1,686, Arlington n = 409, Montgomery n = , Montgomery n = 529, Alexandria n = 280, Fairfax n = 828, Loudoun n = 243, Prince George's n = 457, Prince William n = 161)
Types of Services Offered in 2013

Figure 38 shows the percentages of all regional respondents, respondents who lived in Arlington, and those who worked in Arlington who said their employers offered each of several services. Respondents who worked in Arlington had greater access to all of the listed commute services than did respondents region-wide. The most commonly offered service across the region was SmarTrip/subsidies for transit and vanpool, mentioned by 38% of all regional workers. A considerably higher share (56%) of Arlington workers reported access to this service.

Other services commonly mentioned by Arlington workers included information on commuter transportation options, available to 36% of respondents, services for bikers and walkers, mentioned by 30% of Arlington workers, and preferential parking for carpools and vanpools (27%). Sixteen percent said their employers offer GRH and carpool subsidies were available to about 13% of Arlington workers. Two new services, carshare membership and bikeshare membership, were added to the prompted list in 2013; these services were noted as available by 7% and 5% of Arlington respondents, respectively.

Arlington residents generally had similar access to services as did commuters region-wide, with two notable exceptions; they were much more likely to report access to transit/vanpool subsidies and bike/walk services.
Services Offered by Employer Type and Size

**Employer Type** – Arlington workers who worked for a government agency reported the greatest access to commute services. More than nine in ten commuters who worked for federal agencies (94%) and state/local agencies (91%) said their employer offered commute services, compared with three-quarters of non-profit organization employees and 58% of respondents who worked for a private company (Table 24). The widespread availability of services among state / local agency respondents who work in Arlington is likely due to services offered by Arlington County; region-wide, only 44% of state / local agency workers said they had commute services available at work.

**Employer Size** – Table 25 also shows the availability of commute services for respondents region-wide and those who worked in Arlington by their employer size. About half in ten Arlington workers who worked for very small companies (50 or fewer employees) had access to commute services, compared with about three-quarters who worked for mid-sized organizations with between 51 and 250 employees and nearly nine in ten respondents who worked for employers with more than 250 employees.

<table>
<thead>
<tr>
<th>Employor Category</th>
<th>Region</th>
<th>Worked in Arlington</th>
</tr>
</thead>
<tbody>
<tr>
<td>All employers (Region n = 5,524; Arlington n = 409)</td>
<td>57%</td>
<td>73%</td>
</tr>
<tr>
<td><strong>Employer Type</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal agency (Region n = 1,402; Arlington n = 146)</td>
<td>89%</td>
<td>94%</td>
</tr>
<tr>
<td>State / local agency (Region n = 760; Arlington n = 38)</td>
<td>46%</td>
<td>84%</td>
</tr>
<tr>
<td>Non-profit organization (Region n = 601; Arlington n = 45)</td>
<td>63%</td>
<td>76%</td>
</tr>
<tr>
<td>Private employer (Region = 2,384; Arlington n = 156)</td>
<td>44%</td>
<td>58%</td>
</tr>
<tr>
<td><strong>Employer Size</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 – 50 employees (Region n = 1,986; Arlington n = 124)</td>
<td>36%</td>
<td>48%</td>
</tr>
<tr>
<td>51 – 100 employees (Region n = 600; Arlington n = 49)</td>
<td>37%</td>
<td>78%</td>
</tr>
<tr>
<td>101 – 250 employees (Region n = 653; Arlington n = 52)</td>
<td>55%</td>
<td>75%</td>
</tr>
<tr>
<td>251 – 999 employees (Region n = 799; Arlington n = 71)</td>
<td>74%</td>
<td>89%</td>
</tr>
<tr>
<td>1,000+ employees (Region n = 1,347; Arlington n = 94)</td>
<td>84%</td>
<td>85%</td>
</tr>
</tbody>
</table>

The pattern of increasing availability of commute services as employer size increased was consistent with the results for the region as a whole, except that services were more commonly available among nearly all employer size groups in Arlington than region-wide. The sole exception was in the 1,000 or more employees group; at that employer size level, the share of employees region-wide who reported access to commute services was about the same (84%) as for Arlington workers (85%).
Use of Commute Benefits / Assistance Services

Respondents whose employers offered incentives/benefits or support services were asked if they had ever used these services. About 60% of respondents who worked in Arlington who had services available said they had used one or more of the services, compared with 54% of respondents region-wide. The results for use of specific services are provided in Figure 39.

Figure 39
Use of Employer-Provided Incentives/Support Services – Worked in Arlington
Of Employees Who had Access to Services
(Transit/vanpool subsidy n = 252, Info on travel options n = 164, GRH n = 64, Bicycling/walking services n = 147, Preferential parking n = 122, Bikeshare membership n = 34, Carshare membership n = 35, Carpool subsidy n = 55)

- Transit/vanpool subsidy: 57%
- Info on travel options: 36%
- Bicycling / walking services: 30%
- Guaranteed Ride Home: 22%
- Preferential parking for CP/VP: 18%
- Bikeshare membership: 15%
- Carshare membership: 8%
- Carpool subsidy: 2%

The most commonly used incentives/support services were transit / vanpool subsidies, used by 57% of respondents who said their employers offered this service and commute information, used by 36% of respondents who had access to this service. Three in ten respondents had used bike/walk services and two in ten had used GRH, preferential parking, and a bikeshare membership. One in ten respondents whose employers offered a carshare program membership had used this service.

Parking Facilities and Services
Availability of Parking
Respondents also were asked about the cost of parking services available at work. Nearly two-thirds of regional commuters said free parking was available either on-site (63%) or off-site (2%) (Table 26). About one-quarter said they had to pay the entire cost of parking and 7% said they would pay a portion of the cost and their employers would pay a share. Five percent of respondents did not know who would pay for parking if they drove to work.

Table 26
Parking Facilities and Services Offered by Employers

<table>
<thead>
<tr>
<th>Parking Services</th>
<th>All region (n = 5,524)</th>
<th>Lived in Arlington (n = 496)</th>
<th>Worked in Arlington (n = 409)</th>
<th>Worked in District of Columbia (n = 1,686)</th>
<th>Worked in Alexandria (n = 280)</th>
<th>Worked in Fairfax (n = 828)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free on-site parking</td>
<td>63%</td>
<td>47%</td>
<td>49%</td>
<td>28%</td>
<td>69%</td>
<td>88%</td>
</tr>
<tr>
<td>Free off-site parking</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
<td>2%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Employee pays all parking charges</td>
<td>23%</td>
<td>35%</td>
<td>30%</td>
<td>47%</td>
<td>19%</td>
<td>6%</td>
</tr>
<tr>
<td>Employee and employer share parking charge</td>
<td>7%</td>
<td>10%</td>
<td>14%</td>
<td>14%</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>5%</td>
<td>6%</td>
<td>6%</td>
<td>9%</td>
<td>4%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Arlington Residents and Arlington Workers – Free parking was much less common for commuters who lived and/or worked in Arlington. Just under half (49%) of Arlington resident respondents and a similar share (49%) of respondents who worked in Arlington said their employers provided free parking either on-site or off-site. About 35% of Arlington residents and 30% of Arlington workers said they had to pay the total cost of parking; 10% of residents and 14% of Arlington workers paid or would pay a portion of the cost with the balance paid by their employers. The remaining 6% of respondents in each group did not know who paid for parking at their worksite.

Workers in Neighboring Jurisdictions – The final three columns of Table 26 show the parking cost results for respondents who worked in the District of Columbia, Alexandria, and Fairfax County. Only three in ten (30%) commuters who worked in the District had free parking at work, either on-site or off-site. This was less than half of the regional rate and considerably below the availability for both Arlington residents and Arlington workers. Nearly half of District workers said they paid or would pay the full cost of parking and 14% paid a portion of the cost.

The parking cost situation for Alexandria workers was similar to that for the region as a whole, with 72% of workers reporting free parking on-site or off-site, a much higher share than was noted by Arlington workers. This finding indicates that Alexandria, while located, along with the District and Arlington, in the area of the region defined as the “core,” exhibits a parking cost profile that is more suburban than the other two core jurisdictions. Finally, nine in ten Fairfax County workers said they had free parking at work; only 7% paid or would pay for any portion of their parking cost.

Parking Charge Discounts for Carpools and Vanpools – Respondents who had to pay to park were asked if their employers offered a parking charge discount to employees who carpooled or vanpooled to work, to reduce the travel costs for these employees. The percentages of employees who reported this benefit was available were about the same for the area groups: region-wide (14%), lived in Arlington (15%), and worked in Arlington (15%).
Parking Services from 2004 to 2013 – All Regional Workers and Arlington Workers

Availability of free parking has fallen slightly across the region since 2007 (Figure 40). In 2004 and 2007, about seven in ten (69%) workers across the region said they could park for free at work, either on-site or off-site. In 2010, the availability of free parking region-wide had dropped to 65% and remained at this level in 2013.

Figure 40
All Region and Worked in Arlington
(2004 - All Region n = 6,866, Worked in Arlington n = 516)
(2007 - All Region n = 5,426, Worked in Arlington n = 411)
(2010 - All Region n = 5,819, Worked in Arlington n = 494)
(2013 - All Region n = 5,524, Worked in Arlington n = 409)

Figure 40 also presents the percentages of Arlington workers who cited free parking at work in the four SOC survey years. The percentage of Arlington workers with free parking has been essentially unchanged since 2004. The apparent increases and decreases from year to year, even for the largest drop from 54% in 2007 to 48% in 2010, were not statistically significant.

Parking Services by Employer Type and Size – Arlington Workers

Employer Type – As with commuter assistance services, availability of free parking among Arlington workers depended on the type of their employers. Only 29% of Arlington workers who worked for Federal agencies had free parking at work, compared with 56% of private-sector employees, 57% of respondents who worked for a non-profit, and 67% of respondents who worked for state and local agencies.

Employer Size – Respondents who worked in Arlington and who worked for large employers were less likely to have free parking. About four in ten (39%) Arlington workers who were employed by firms with 251 or more employees had free parking, compared with 59% of respondents who worked for employers with 250 or fewer employees.

Parking Services by Work Location – Arlington Residents

Although the percentage of Arlington residents who reported free parking was essentially the same as for respondents who worked in Arlington, residents’ access to free parking differed substantially by where they worked. Arlington residents who also worked in Arlington County reported the same access to free parking (49%) as did all Arlington workers (48%). But only 21% of Arlington residents who worked in the District of Columbia reported access to free parking, while 92% of Arlington residents who worked in Fairfax County had free parking at work.
Commute Mode by Commuter Assistance and Parking Services Offered

Commute Mode by Commute Assistance Services Offered

Lived in Arlington – Figure 41 presents the mode split percentages for Arlington residents whose employers provided commute assistance services or benefits and those who did not. Arlington workers whose employers provided alternative mode incentives and support services were less likely to drive alone (50%) than were respondents whose employers did not provide these services (63%). Arlington residents who had commute services at work traveled to work by transit at nearly twice the rate (33%) as did respondents who did not have services (17%). Residents with services teleworked less than did other respondents. The differences in mode use for other alternative modes were not statistically significant.

![Figure 41: Primary Commute Mode by Commuter Services/Benefits Offered or Not Offered](image)

Lived in Arlington

(Services offered n = 348, Services not offered n = 148)

<table>
<thead>
<tr>
<th>Mode</th>
<th>Services Offered</th>
<th>Services Not Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive alone</td>
<td>50%</td>
<td>63%</td>
</tr>
<tr>
<td>Bus/Train</td>
<td>17%</td>
<td>5%</td>
</tr>
<tr>
<td>Carpool/Vanpool</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>Bike/walk</td>
<td>8%</td>
<td>7%</td>
</tr>
<tr>
<td>Telework</td>
<td>2%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Worked in Arlington – The pattern was somewhat different for Arlington workers (Figure 42). Respondents who worked in Arlington and whose employers provided alternative mode incentives and support services also were less likely to drive alone (53%) than were respondents whose employers did not provide these services (65%). They were much more likely to carpool or vanpool (10%) than were respondents without services (1%), but transit use for the “with services” and “without services” groups was essentially the same. The differences in mode use for other alternative modes are not statistically significant.

The great disparity in carpool/vanpool use for Arlington workers and relative parity in transit use could be due to several factors. As was indicated in Figure 38, Arlington workers had greater access than did Arlington residents to several carpool/vanpool-oriented services (GRH, preferential parking, and carpool subsidies), thus the “with services” group would have included greater motivation for carpool use than was common among Arlington residents.

Additionally, transit service access and support is generally very good in most Arlington employment areas, so the availability of transit, coupled with a high level of transit information and financial incentives offered by Arlington employers, longer commute distances, and other deterrents to driving, could influence Arlington workers to choose transit even when they do not receive transit-specific commute services at work.
**Commute Mode by Parking Services Offered**

Figure 43 presents a comparison of mode use rates for respondents who worked in Arlington who had free on-site parking at work and those who either had to pay for parking or had no parking at all. The difference in drive alone rates for these two groups was dramatic; 70% of Arlington workers who had free parking drove alone, compared with only four in ten (43%) respondents who did not have this benefit. Arlington workers who had to pay for parking used rode a bus/train and carpooled/vanpooled at about twice the rate for workers who had free parking. The rated for bike/walk and telework were statistically the same for the two groups.
The results for Arlington residents were similar to those for Arlington workers. More than seven in ten (73%) residents who had free parking primarily drove alone, compared with 37% of residents who paid to park. Residents who did not have free parking were much more likely to use transit to commute: 41% of residents without free parking rode a bus or train, compared with 12% of residents who had free parking.

It is not possible to say that the availability of commute services or free parking were the only reasons, or even the primary reasons, for differences in mode use. Many factors influence commuters’ choice of transportation, including personal needs and specific travel and site characteristics. For example, parking charges are most often found in locations that are more densely developed and that have typically higher levels of congestion and greater availability of transit than would be experienced by workers in less dense locations. These other factors might also influence respondents’ commute mode choices. But many other surveys and research studies have documented the important role parking availability and cost play in commute decisions and these results are consistent with these other studies.
APPENDICES

Appendix A – Summary of Survey Methodology

Appendix B – Survey Questionnaire
APPENDIX A – SUMMARY OF SURVEY METHODOLOGY

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 2010 study. A minimum of 600 random telephone surveys were conducted in each of the 11 jurisdictions of the study area, resulting in 6,629 completed interviews. 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.

Questionnaire Design

The 2010 SOC questionnaire was based on the questionnaire used in 2007, 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 2007 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 2007 questionnaire to enhance respondents’ understanding of the question and several questions were deleted to shorten the survey. Several new questions were added to examine significant new transportation topics, including quality of life and satisfaction with the regional transportation system.

Before the full survey was conducted, CIC completed a pretest of the questionnaire. The pretest was conducted on January 22 and 23, 2010 resulting in 128 completed interviews. Using the responses to these interviews, the questionnaire was finalized with the study team and translated into Spanish. The survey instrument was designed for telephone administration using Computer Assisted Telephone Interviewing (CATI). A copy of the English questionnaire is included in Appendix C. The Spanish version of the questionnaire is available upon request.

Survey Administration

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 CATI systems in full operational mode

Interviews were conducted between January 22 and April 30, 2010. A survey pretest was conducted on January 22 and 23 to test changes to the questionnaire and sample administration. Following the successful pretest, interviewing continued on January 28, 2010.
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 74 interviews (1.1%) were completed in Spanish.

All interviewing was conducted with survey supervisors present. The survey supervisor was responsible for overseeing the CATI server, checking quotas, editing call-back appointment times, monitoring interviews, answering questions, reviewing completed surveys, and passing respondents to an available station when they called in on the 1-800 line. To ensure quality control, 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 interview took an average of 21.1 minutes to complete in 2010 as compared to 16.5 minutes in 2007.

A minimum of 600 interviews were completed in each of the 11 jurisdictions, resulting in a total sample size of 6,629. The refusal rate for the 2010 survey was 14.3 percent\(^2\) compared with 14.8 percent in the 2007 study. An average of 73.0 call attempts was made for each completed interview. This was an increase from 62.2 call attempts in the 2007 study. This trend toward an increasing number of call attempts is likely due to higher 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.

**Survey Data 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.

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\(^2\) 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.
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: \( \lambda^l + \lambda^c = 1 \).

The adjustment factor for landlines, \( \lambda^l \), 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, \( \lambda^c \), 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: \[
\frac{1 \text{ Adult}}{1 \text{ Cell Phone}} \times \lambda^c
\]

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

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

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 comparing 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 – Ethnicity Weighting Factors by Survey Area

<table>
<thead>
<tr>
<th>Survey Area</th>
<th>Ethnicity Weighting Factors*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hispanic</td>
</tr>
<tr>
<td>Alexandria City, VA</td>
<td>2.25</td>
</tr>
<tr>
<td>Arlington Co., VA</td>
<td>1.86</td>
</tr>
<tr>
<td>Calvert Co., MD</td>
<td>1.00</td>
</tr>
<tr>
<td>Charles Co., MD</td>
<td>1.10</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>1.00</td>
</tr>
<tr>
<td>Fairfax Co., VA</td>
<td>1.92</td>
</tr>
<tr>
<td>Frederick Co., MD</td>
<td>1.00</td>
</tr>
<tr>
<td>Loudoun Co., VA</td>
<td>2.51</td>
</tr>
<tr>
<td>Montgomery Co., MD</td>
<td>2.12</td>
</tr>
<tr>
<td>Prince George’s Co., MD</td>
<td>2.15</td>
</tr>
<tr>
<td>Prince William Co., VA</td>
<td>1.68</td>
</tr>
</tbody>
</table>

*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

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

*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

<table>
<thead>
<tr>
<th>Sub-Area or Sub-Population</th>
<th>Sample Size</th>
<th>Level of Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Geographic Sub-Areas</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study Region – Eleven Areas</td>
<td>6,335</td>
<td>95% ± 1.2%</td>
</tr>
<tr>
<td>Study Portion of Virginia</td>
<td>2,880</td>
<td>95% ± 1.8%</td>
</tr>
<tr>
<td>Study Portion of Maryland</td>
<td>2,878</td>
<td>95% ± 1.8%</td>
</tr>
<tr>
<td>Individual County or City Level</td>
<td>575</td>
<td>95% ± 4.1%</td>
</tr>
</tbody>
</table>

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).

1. Survey Results
   575 Respondents

2. Expanded Survey Results
   507,870 Individuals

3. Adjusted, Expanded, and Weighted Survey Results
   507,420 Individuals

Note: 1. $810 \times 627 = 507,870$ 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 – 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 QS2
   2   No – SAY: I’ll call back another time (TERMINATE)
   9   Refused (THANK & TERMINATE)

SB2 Are you driving right now?
   1   Yes – ASK QS
   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?
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 Q5

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
## Go to Work

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

**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?

<table>
<thead>
<tr>
<th>Number of minutes</th>
<th>Time varies</th>
<th>888</th>
<th>999</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Don’t know</td>
<td>Refuse</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Number of miles</th>
<th>Time varies</th>
<th>888</th>
<th>999</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Don’t know</td>
<td>Refuse</td>
</tr>
</tbody>
</table>
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 INSTRUCTIONS 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**

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

**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
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.)

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Home</td>
<td>(SKIP TO Q42)</td>
</tr>
<tr>
<td>2 Telework Center</td>
<td></td>
</tr>
<tr>
<td>3 Both home and Telework Center</td>
<td></td>
</tr>
<tr>
<td>4 Satellite office provided by employer</td>
<td></td>
</tr>
<tr>
<td>5 Both home and satellite office</td>
<td></td>
</tr>
<tr>
<td>6 Business service center (Kinkos) or other “retail” location</td>
<td></td>
</tr>
<tr>
<td>7 Both home and business service center (Kinkos) or other “retail” location</td>
<td></td>
</tr>
<tr>
<td>8 Library or community center</td>
<td></td>
</tr>
<tr>
<td>9 Both home and library or community center</td>
<td></td>
</tr>
<tr>
<td>10 Executive office suites</td>
<td></td>
</tr>
<tr>
<td>11 Both home and executive office suites</td>
<td></td>
</tr>
<tr>
<td>12 other location (SPECIFY)</td>
<td>_________________________________________________________________________</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 N/A</td>
<td></td>
</tr>
<tr>
<td>2 N/A</td>
<td></td>
</tr>
<tr>
<td>3 drive alone</td>
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</tr>
<tr>
<td>17 N/A</td>
<td></td>
</tr>
<tr>
<td>18 N/A</td>
<td></td>
</tr>
<tr>
<td>19 taxi</td>
<td></td>
</tr>
<tr>
<td>99 DK/Ref</td>
<td></td>
</tr>
</tbody>
</table>
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?

<table>
<thead>
<tr>
<th>Service in Home Area</th>
<th>1 – Yes</th>
<th>2 – No</th>
<th>3 – Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Bus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Train</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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?

<table>
<thead>
<tr>
<th>Service in Work Area</th>
<th>1 – Yes</th>
<th>2 – No</th>
<th>3 – Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Bus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Train</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 are you 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 VOLUNTEER 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/Refused (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
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)

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)
- ______ 99 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>?

<table>
<thead>
<tr>
<th>Mode/Day typically used per week</th>
<th>Number of days using mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 compressed work schedule day off</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2 telecommute</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3 drive alone in your car, taxi</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4 motorcycle</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5 carpool, including carpool with family member, dropped off</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6 casual carpool (slugging)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7 vanpool</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8 buspool</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9 bus</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>10 Metrorail</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>11 MARC</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>12 VRE</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>13 AMTRAK, other train</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>14 Bicycle (including Capital Bikeshare, CABI)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>15 walk</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>16 didn’t work, regular days off</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>17 N/A</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>18 N/A</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>19 Taxi</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>20 N/A</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>21 not working then, not in DC area then</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>99 don’t know, refused</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
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 ACCEPT 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
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
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 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 HOME ALL SKIP TO Q113
IF TELE ALL 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

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

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)

<table>
<thead>
<tr>
<th>Service</th>
<th>1 - Used</th>
<th>2 – Not used</th>
<th>3 - Not available</th>
<th>8 – Owner/Self-employed</th>
<th>9 – Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Information on commuter transportation options</td>
<td></td>
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</tr>
<tr>
<td>or vanpooling</td>
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</tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Guaranteed rides (GRH) home</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>7 Carshare membership</td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

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

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>yes</td>
</tr>
<tr>
<td>2</td>
<td>no (SKIP TO Q91)</td>
</tr>
<tr>
<td>9</td>
<td>Don’t know/Ref (SKIP TO Q102)</td>
</tr>
</tbody>
</table>
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 carpool 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 ride share 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, CONTINUE 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 TO 115b)
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_________
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)

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

1  Yes
2  No
9  DK/Ref.

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 RESPONSE 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

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.

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 PHONE:**

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