COMMUTER CONNECTIONS
STATE OF THE COMMUTE SURVEY
2010

Summary Results for
Arlington County, VA
Commuters Who Live in Arlington County
Commuters Who Work in Arlington County

Prepared for:
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SECTION 1 INTRODUCTION

Overview

In 2010, 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, that 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 2010 survey represented the fourth triennial SOC survey, with other surveys conducted in 2007, 2004, and 2001. Each of the four surveys interviewed 600 residents from each of the jurisdictions located in the MWCOG region. One of the jurisdictions 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.

Survey Sample

The 2010 survey sample included 602 Arlington County residents and ___ respondents who worked in Arlington County. These two data sub-sets (live in Arlington and work in Arlington) overlapped for ___ respondents who both worked and lived in the County. The sample sizes and statistical confidence levels for the populations of Arlington residents (“live in Arlington”) and Arlington employees (“work in Arlington”) were 95% ± 4.0% and 95% ± 4.2% respectively. Sample sizes and confidence levels also are shown below for the 3007, 2004, and 2001 surveys.

<table>
<thead>
<tr>
<th>Year</th>
<th>Sample</th>
<th>Live in Arlington</th>
<th>Work in Arlington</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>CL</td>
<td>95% ± 4.0%</td>
<td>555</td>
</tr>
<tr>
<td></td>
<td></td>
<td>602</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>CL</td>
<td>95% ± 4.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>600</td>
<td>552</td>
</tr>
<tr>
<td>2004</td>
<td>CL</td>
<td>95% ± 4.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>CL</td>
<td>95% ± 4.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>600</td>
<td>527</td>
</tr>
</tbody>
</table>

To align the sampled survey results with published numbers for the study area for each of the four survey years, the data in Arlington County and each of the other jurisdictions included in the regional sample were expanded to represent the number of employed people in that jurisdiction. The expansion methodology allowed the proper representation of employees in each of the jurisdictions.

**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 2010 results. However, results for 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 2010 SOC survey.

Further, the report presents selected comparisons between Arlington County and residents of the entire region. 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=__).

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
- Section 7 – Awareness of commute advertising and assistance services
- Section 8 – Commuter assistance services provided by employers
- Section 9 – Transportation satisfaction
SECTION 2  CHARACTERISTICS OF THE 2010 SOC SAMPLE

At the end of the survey interview, respondents were asked a series of questions about themselves, including: sex, age, ethnic background, 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.

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

Arlington workers had higher annual household incomes than the regional average. Respondents who worked in Arlington were more likely to be Caucasian than was the case region-wide.

Demographic Characteristics

Sex
Among all regional respondents, most respondents (55%) were female; 45% were male. Arlington resident respondents were similarly divided, with 54% female and 46% male. About half (51%) of the respondents who worked in Arlington were female; 49% were male.

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 were similar for the three groups. About two in ten respondents were younger than 35 and about 55% were between the ages of 35 and 54.

Figure 1
Respondent Age
(All Region n = 6,506, Live in Arlington n = 590, Work in Arlington n = 544)
Income
Figure 2 shows that the annual household incomes of respondents who lived in Arlington were similar to that of respondents region-wide. Fifty-two percent of Arlington residents reported household incomes of $80,000 or higher, compared with 49% of all regional employees. But respondents who worked in Arlington had considerably higher incomes than the regional average. About 56% of respondents who worked in Arlington had household incomes of $80,000 or more.

![Figure 2: Annual Household Income](image)

Race / Ethnicity
Table 1 presents the distribution of respondents by racial / ethnic background. Just over half of all regional respondents were Caucasian and about a quarter were African-American. Among Arlington residents, Caucasians represented a larger percentage (66%) and African-Americans represented a smaller share (7%) of respondents. The distribution of Arlington employees more closely mirrored that of the region, with African-Americans comprising 15% of respondents who worked in Arlington.

![Table 1: Ethnic Background](image)
**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 12-jurisdiction COG region, no respondents lived outside these areas.

About two in ten (22%) respondents who worked in Arlington County also lived in the County. Half (51%) lived in another Virginia jurisdiction and 20% lived in Maryland. Only seven percent lived in the District of Columbia.

**Work Locations**

As also shown in Table 2, work locations for all regional respondents were more evenly divided. The largest number 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 numbers.

More than four in ten (44%) Arlington residents said they worked in the District of Columbia. About half worked in Virginia; either in Arlington (33%) or in another Virginia jurisdiction (16%). Only six percent said they worked in Maryland.

<table>
<thead>
<tr>
<th>Area</th>
<th>All Region (n = 6,629)</th>
<th>Live in Arlington (n = 602)</th>
<th>Work in Arlington (n = 555)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Home Location</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arlington County, VA</td>
<td>5%</td>
<td>100%</td>
<td>22%</td>
</tr>
<tr>
<td>Other Virginia</td>
<td>39%</td>
<td>0%</td>
<td>51%</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>12%</td>
<td>0%</td>
<td>7%</td>
</tr>
<tr>
<td>Maryland</td>
<td>44%</td>
<td>0%</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Work Location</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arlington County, VA</td>
<td>8%</td>
<td>33%</td>
<td>100%</td>
</tr>
<tr>
<td>Other Virginia</td>
<td>29%</td>
<td>16%</td>
<td>0%</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>34%</td>
<td>44%</td>
<td>0%</td>
</tr>
<tr>
<td>Maryland</td>
<td>27%</td>
<td>6%</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
</tr>
</tbody>
</table>

* Adjusted distribution allows for the proper representation of working households in each geographical area.

** 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 who lived in Arlington and those who worked in Arlington were less likely to work for private employers and more likely to work for a federal agency than were other regional workers. Respondents who worked in Arlington were much more likely to work for large employers than were other regional workers.

Respondents 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 distribution of respondents who lived in Arlington by the size of their employer generally followed the distribution of the region as a whole. About 31% of Arlington residents and 33% of all regional workers worked for employers with 100 or fewer employees. And 45% of Arlington residents and 43% 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 large employer. Almost half (46%) worked for employers with more than 250 employees and 63% worked for employers with more than 100 employees.

![Figure 3](image)

**Employer Type**

As shown in Table 3, four in ten (41%) regional respondents worked for a private sector employer. Government agencies employed more than a third, divided between federal agencies with 24% and state and local agencies with 12%. About one in ten (13%) worked for a non-profit organization and the remaining 10% were self-employed.
Arlington residents were more likely to work for a federal agency (30%) than were respondents region-wide and less likely to work for either a private sector employer or a state/local agency. The distribution of employer types of respondents who worked in Arlington was considerably different from the regional distribution. Just over a third (35%) of Arlington employees worked for a private sector firm and an equal share (36%) worked for federal agencies.

**Occupations**

Respondents represented many occupations, as shown in Table 4, but the majority in each of the three population groups worked in professional or executive/managerial occupations. Arlington residents were particularly likely to work in professional occupations (45%). 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 (5%) than were all regional employees.
SECTION 3  COMMUTE PATTERNS

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

- Work schedules
- Commute mode(s) used and the frequency of use
- Use of alternative work schedules
- Alternative mode characteristics
- Mode shifts and trial use of modes
- Reasons for using current commute modes
- Commute distance

Work Schedules

Full-time vs Part-time

Nearly all (88%) of Arlington resident respondents worked full-time, defined as 35 or more hours per week. The full-time percentage was similar, 93%, for respondents who worked in Arlington.

Work at Home

About eight percent of the Arlington resident respondents said they never commuted to a work location outside their homes. The majority of these respondents (6% of total respondents) said they were self-employed and had no other work location. The remaining two percent of respondents said they teleworked from home every day they worked. These percentages were slightly lower for respondents who worked in Arlington; five percent said they worked entirely at home, with four percent self-employed and one 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 commute advertising and demographics. Additionally, respondents who teleworked five days per week 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 schedules: standard 5-day 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.

About two-thirds (68%) of respondents who worked in Arlington said they work a standard schedule. About a quarter (25%) had a flexible schedule and seven percent said they worked a CWS. Flextime and CWS were less common schedules for respondents who lived in Arlington. About seven in ten (72%) of Arlington residents said they work a standard schedule, while only 22% worked a flexible schedule and six percent worked CWS.
Current Types of Commute Transportation

A large majority of both respondents who lived in Arlington (98%) and those who worked in Arlington (98%) used one type of transportation three or more days per week for travel to work.

Arlington residents drove alone 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 use a carpool or vanpool for their trip to work.

The drive alone mode share for Arlington residents appears to have decreased between 2001 and 2010 and the share of work trips made by train has increased.

The drive alone mode split of respondents who worked in Arlington did not change significantly between 2001 and 2007, but showed a marked drop between 2007 and 2010. Train use increased correspondingly for these respondents.

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 did travel outside their homes to work were asked what types of transportation they used to travel to work each weekday (Monday-Friday) during the survey week. If they were sick, on holiday or vacation, or otherwise absent from work one or more days during the week, respondents were asked to report how they likely would have traveled to work on those days. Figures 5 through 7 present several different views of modal distribution.

**Weekly Trips by Type - 2010**

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 are shown for days employees travel to a work location outside their homes: drive alone, train (subway/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 schedule options. The figure shows the distribution of transportation types 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 = 6,050, Live in Arlington n = 551, Work in Arlington n = 506)
All Region – Just under two-thirds (64%) of work trips in the region were made by driving alone. The second most popular type was train, including Metrorail and commuter rail, which accounted for about 15% of regional commute trips. Carpool/vanpool and bus were used for seven percent and six percent of trips, respectively. Two percent of weekly trips were made by bike or walking. TW/CWS accounted for the remaining six percent 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.

Live in Arlington – Arlington residents showed substantially different commute choice. The drive alone share was only 54%, significantly below the 64% rate for all regional employees. And train use was well above the regional average; 21% of Arlington residents rode a train to work, compared with 15% of the regional population. The share of trips made by bike/walk (8%) also was considerably higher for Arlington residents than for the region as a whole. Carpool/vanpool and TW/CWS shares were about the same as for the region.

Work in Arlington – Commuters who worked in Arlington also made fewer work trips by driving alone (55%) than did all regional workers. They made more trips by train (21%) and carpool/vanpool (11%) than did workers region-wide. Percentages of trips made by bus, bike/walk, and CWS/TW by respondents who worked in Arlington were similar to the percentages for all regional workers.

As noted earlier, the State of the Commute survey also was conducted in 2001, 2004, and 2007. Following are comparisons of mode split for 2010 and these other survey years for respondents who lived in Arlington (Figure 6) and those who worked in Arlington (Figure 7).

Live 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 (subway/commuter rail, bus), carpool/vanpool, and bike/walk. Telework and CWS also are shown in the figure.

![Figure 6](image-url)
The comparison shows that the drive alone percentage dropped between 2001 and 2007, from 63% to 52%, then remained approximately at this level in 2010; the increase to 54% in 2010 was not a statistically significant difference. Modes that gained mode share included transit, which increased from 23% to 27% of weekly trips and telework/CWS, which grew from two percent to eight percent of weekly trips. Changes in carpool/vanpool and bike/walk shares were not statistically significant.

**Work in Arlington** – Figure 7 compares mode split for the four survey years for respondents who work in Arlington. The comparison shows that the percentages of weekly trips were relatively stable between 2001 and 2007. But 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. Percentages of trips made by other modes were essentially unchanged from 2001 to 2010.

**Figure 7**  

<table>
<thead>
<tr>
<th></th>
<th>2001 (n = 468)</th>
<th>2004 (n = 516)</th>
<th>2007 (n = 455)</th>
<th>2010 (n = 506)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive alone</td>
<td>59%</td>
<td>60%</td>
<td>60%</td>
<td>55%</td>
</tr>
<tr>
<td>Transit</td>
<td>23%</td>
<td>21%</td>
<td>23%</td>
<td>27%</td>
</tr>
<tr>
<td>Carpool/Vanpool</td>
<td>11%</td>
<td>12%</td>
<td>9%</td>
<td>11%</td>
</tr>
<tr>
<td>Bike/walk</td>
<td>4%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>TW/CWS</td>
<td>3%</td>
<td>4%</td>
<td>5%</td>
<td>4%</td>
</tr>
</tbody>
</table>

**Frequency of Current Mode Use**
Table 5 shows mode split for 2010 from a second perspective – as the percentage of respondents who used each type of transportation. The table presents the percentages of Arlington residents and respondents who worked in Arlington who used each type as their “primary” mode, defined as the type used most days of the week. Nearly all (98%) 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 percentage who used each type as a secondary mode, typically one or two days per week.
Table 5

Primary and Secondary Commute Modes
Percentage of Respondents Who Use Modes and Average Days Used per Week

<table>
<thead>
<tr>
<th>Mode</th>
<th>Live in Arlington (n = 551)</th>
<th>Work in Arlington (n=506)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Primary</td>
<td>Secondary</td>
</tr>
<tr>
<td>Drive alone</td>
<td>50%</td>
<td>8%</td>
</tr>
<tr>
<td>Carpool</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>Train</td>
<td>20%</td>
<td>3%</td>
</tr>
<tr>
<td>Bus</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>Bike/walk</td>
<td>7%</td>
<td>1%</td>
</tr>
<tr>
<td>TW</td>
<td>3%</td>
<td>6%</td>
</tr>
</tbody>
</table>

About half (50%) of commuters who lived in Arlington said they primarily drove alone to work. Eight percent said they drove alone as a secondary mode (occasionally). Two in ten residents primarily commuted by train and three percent used this type as a secondary mode. Bus, carpool/vanpool, bike, and walk had fewer occasional users; only one percent of residents said they used each of these types occasionally. About three percent of resident respondents said they primarily teleworked and six percent teleworked one or two days per week. The share of occasional use of each mode was similar for commuters who worked in Arlington and for those who live in Arlington.

Average Days Used – Table 5 also shows the average number of days per week each type of transportation was used. All of the traditional commute types were used at least 3.7 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.

Telework showed 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 frequency of telework for respondents who worked in Arlington was 1.9 days per week. Note, however, that the average telework frequency included only respondents who actually teleworked during the survey week. Many more respondents said they telework infrequently, for example “occasionally for special projects.” These respondents were not counted in the frequency base for this figure.

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 who worked in different states and residents whose household owed different numbers of vehicles. These results are presented below.
State of Employment – Table 6 displays types of transportation used for commuting by state of employment. Arlington residents who worked in the District of Columbia were substantially less likely to drive alone to work than were those who worked in Virginia or Maryland. Only 45% of District workers drove alone, compared to 71% of Maryland workers and 63% of those who worked in Virginia. Arlington residents who worked in the District were much more likely to use transit than were Maryland or Virginia workers.

Table 6
Primary Mode by State of Employment
Live in Arlington

<table>
<thead>
<tr>
<th>State of Employment</th>
<th>(n=__)</th>
<th>Drive Alone</th>
<th>Carpool / Vanpool</th>
<th>Transit</th>
<th>Bike / Walk</th>
</tr>
</thead>
<tbody>
<tr>
<td>District of Columbia</td>
<td>268</td>
<td>45%</td>
<td>6%</td>
<td>44%</td>
<td>4%</td>
</tr>
<tr>
<td>Maryland</td>
<td>31</td>
<td>71%</td>
<td>8%</td>
<td>11%</td>
<td>0%</td>
</tr>
<tr>
<td>Virginia</td>
<td>299</td>
<td>63%</td>
<td>5%</td>
<td>15%</td>
<td>11%</td>
</tr>
</tbody>
</table>

Vehicles Available – Table 7 shows the distribution of types of transportation used by the number of vehicles available to the respondent. Not unexpectedly, respondents who did not have a car 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 bus and train declined.

Table 7
Primary Mode by Number of Vehicles in Household
Live in Arlington

<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>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>28</td>
<td>2%*</td>
<td>11%</td>
<td>74%</td>
<td>13%</td>
</tr>
<tr>
<td>1</td>
<td>230</td>
<td>44%</td>
<td>6%</td>
<td>36%</td>
<td>8%</td>
</tr>
<tr>
<td>2</td>
<td>232</td>
<td>68%</td>
<td>3%</td>
<td>18%</td>
<td>6%</td>
</tr>
<tr>
<td>3 or more</td>
<td>105</td>
<td>68%</td>
<td>7%</td>
<td>17%</td>
<td>6%</td>
</tr>
</tbody>
</table>

* Respondents in this group could be passengers in taxi
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 the higher than average percentage of transit use in Arlington. Respondents who worked in Arlington traveled about the same distances and longer times than did the average regional commuter.

Number of Commute Miles

Figure 8 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.

![Figure 8: Commute Distance (miles)](https://example.com/commute_distance.png)

The average one-way commute distance for all respondents in the region was 16.3 miles, one-way. As shown in the figure, more than one-third (36%) of regional commuters commuted fewer than 10 miles one-way. Three in ten (29%) said they traveled between 10 and 19 miles. About a third (34%) had commute distances of 20 miles or greater.

Commuters who lived in Arlington traveled much shorter distances, on average. Their average distance was only 8.2 miles one-way and seven in ten (71%) traveled fewer than 10 miles. Only seven percent said they traveled 20 or more miles. By contrast, commuters who worked in Arlington traveled 16.1 miles one-way, about the same distance as all regional commuters and nearly twice as far as did Arlington residents. More than a third (36%) traveled 20 or more miles one-way.
Commute Travel Time

Figure 9 presents the average commute time for all regional commuters and for the two groups of Arlington commuters. As shown, the average regional commute time in 2010 was 36 minutes one-way. About a third (33%) of regional commuters traveled 20 minutes or less and 43% commuted between 21 and 45 minutes. The remaining 24% traveled more than 45 minutes.

The travel time for commuters who lived in Arlington (27 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 72% traveled 30 minutes or less.

Commuters who worked in Arlington spent more time commuting than did all regional commuters; 41 minutes compared to 36 minutes for the regional average. Nearly six in ten (59%) traveled longer than 30 minutes one-way and 32% 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 tended to be shorter distance but longer time than trips by other types of transportation.

Table 8 lists the average commute distances and times for commuters who used various types of transportation. Commuters who drove alone or who rode a train to work traveled slightly farther than the average distance. Bus and train riders spent the longest time commuting, about 35 minutes and 31 minutes one-way, respectively, compared to about 27 minutes for all respondents.

Table 8

<table>
<thead>
<tr>
<th>Commute Distance and Time by Primary Commute Mode</th>
<th>Live in Arlington</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary Commute Mode</strong></td>
<td><strong>Average Distance (mi.)</strong></td>
</tr>
<tr>
<td></td>
<td>(n=__)</td>
</tr>
<tr>
<td>Overall average</td>
<td>496</td>
</tr>
<tr>
<td>Drive alone</td>
<td>295</td>
</tr>
<tr>
<td>Carpool/Vanpool</td>
<td>27</td>
</tr>
<tr>
<td>Bus</td>
<td>26</td>
</tr>
<tr>
<td>Train</td>
<td>96</td>
</tr>
<tr>
<td>Bike/walk</td>
<td>41</td>
</tr>
</tbody>
</table>

Alternative Transportation Use Characteristics

Commuters who lived or worked in Arlington were more likely to have started using an alternative mode within the past three years than were commuters region-wide. Seven in ten Arlington residents who started using an alternative mode within the past two years said they had previously used a different alternative mode or had “always used” their current type of transportation. The remaining 30% shifted from driving alone. Among respondents who worked in Arlington, 45% of alternative mode users had shifted from driving alone.

Carpool and Vanpool Occupancy

The average number of occupants in Arlington residents’ carpools/vanpools was 2.5 people. The occupancy was the same, 2.5, 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. Among all regional workers, about a third of respondents (35%) walked to the meeting place and 12% rode a bus or train. Eleven percent said they drove to the location, but then continued on as the carpool/vanpool driver and 10% said they were picked up at home by the carpool or vanpool driver.

<table>
<thead>
<tr>
<th>Access Mode to Alternative Mode</th>
<th>All Region (n = 1,600)</th>
<th>Live in Arlington (n = 199)</th>
<th>Work in Arlington (n = 195)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driving Access</td>
<td>28%</td>
<td>4%</td>
<td>27%</td>
</tr>
<tr>
<td>Drive to a central location (e.g., Park &amp; Ride)</td>
<td>18%</td>
<td>3%</td>
<td>20%</td>
</tr>
<tr>
<td>Drive alone to driver’s/passenger’s home</td>
<td>10%</td>
<td>1%</td>
<td>7%</td>
</tr>
<tr>
<td>Non-driving access</td>
<td>72%</td>
<td>96%</td>
<td>73%</td>
</tr>
<tr>
<td>Walk/bicycle</td>
<td>35%</td>
<td>64%</td>
<td>36%</td>
</tr>
<tr>
<td>Bus/train</td>
<td>12%</td>
<td>16%</td>
<td>11%</td>
</tr>
<tr>
<td>Drive car/vanpool, live with other pool members</td>
<td>11%</td>
<td>8%</td>
<td>12%</td>
</tr>
<tr>
<td>Picked up at home by car/vanpool driver</td>
<td>10%</td>
<td>7%</td>
<td>11%</td>
</tr>
<tr>
<td>Other</td>
<td>4%</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>Distance to meeting point</td>
<td>2.6 miles</td>
<td>1.1 miles</td>
<td>2.4 miles</td>
</tr>
<tr>
<td>Percentage traveling 1 miles or less</td>
<td>60%</td>
<td>88%</td>
<td>65%</td>
</tr>
</tbody>
</table>

More than a quarter (28%) of regional respondents drove to the meeting point but left their cars there. 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 and these trips should be reflected in an air quality analysis.

Live in Arlington – The results were strikingly different for Arlington residents. Nearly two-thirds (64%) said they walked/bicycled to the meeting point and 16% used a bus or other transit. Only four percent drove to the meeting point and parked their cars for the rest of the day.

Work in Arlington – Commuters who worked in Arlington, on the other hand, had access patterns essentially the same as the regional pattern. A quarter (27%) drove to the meeting point and parked their cars for the rest of the day. A third (36%) walked/bicycled to the meeting point.

In general, access trips to alternative mode meetings points were short. Commuters across the region traveled an average of 2.6 miles one-way and six in ten (60%) traveled one mile or less. Arlington residents traveled 1.1 miles on average, with 88% 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 2.4 miles one way. About two-thirds of these respondents traveled one mile or less.

**Length of Time Using Alternative Modes**

Respondents who used an alternative mode of transportation 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 10 for all regional workers, Arlington residents, and respondents who worked in Arlington.

![Figure 10](image)

Length of Time Using Alternative Modes
(All region n = 1,803, Live in Arlington n = 246, Work in Arlington n = 229)

In all three groups, a substantial portion of respondents were long-term users of alternative modes. Four in ten (45%) alternative mode users region-wide had used their current mode for more than five years and two-thirds (65%) had used this mode for three or more years.

Results were similar for Arlington respondents. Four in ten respondents who lived in Arlington (40%) and a similar share of those who worked in Arlington (39%) had used their current alternative modes for five or more years and slightly over half in both Arlington groups had used these modes for at least three years. But alternative modes continue to attract new users. Two in ten Arlington residents and a quarter 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 two years or less were asked what type of transportation they used before starting these alternatives. Table 10 displays these results.
Table 10
Modes Used Before Starting Current Alternative Mode*

<table>
<thead>
<tr>
<th>Previous Mode</th>
<th>All Region (n = 839)</th>
<th>Live in Arlington (n = 119)</th>
<th>Work in Arlington (n = 122)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always used this alternative mode</td>
<td>15%</td>
<td>23%</td>
<td>15%</td>
</tr>
<tr>
<td>Drive alone</td>
<td>45%</td>
<td>30%</td>
<td>45%</td>
</tr>
<tr>
<td>Previous Alternative Mode</td>
<td>40%</td>
<td>47%</td>
<td>40%</td>
</tr>
<tr>
<td>Train</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Bus</td>
<td>12%</td>
<td>13%</td>
<td>10%</td>
</tr>
<tr>
<td>Carpool/vanpool</td>
<td>3%</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>Bike/walk</td>
<td>5%</td>
<td>7%</td>
<td>5%</td>
</tr>
</tbody>
</table>

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

In each of the three respondent groups, at least three in ten said their previous mode had been driving alone. But a sizeable share of respondents had shifted from another alternative mode, for example, from train to carpool, or from bus to vanpool. Shifts within alternative modes were most common for Arlington residents; 33% shifted from a bus or train, seven percent shifted from carpool/vanpool, and seven percent had previously been walking or bicycling to work. About 40% of regional respondents and respondents who worked in Arlington made a shift from another 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.

Use of Other Alternative Types of Transportation for Commuting

Alternative modes in Arlington continue to attract new users – nearly four in ten commuters who lived in Arlington and a similar share who worked in Arlington said they used or tried a new alternative mode for commuting in the past two years. This could be due to a combination of factors, including both a willingness to try new modes and greater availability of mode choices than for the region as a whole.

Arlington commuters who used alternative modes did so primarily to save time, save money, because they changed jobs or work hours, moved to a new residence, or because they did not have a vehicle available for commuting. Commuters who tried a new mode that they had not continued cited some similar reasons for trying a new mode, but also mentioned weather, get exercise, and emergency use, suggesting a short-term or occasional need.
Alternative Modes Tried
Respondents who did not work at home full-time were asked about alternative modes they might have used for commuting in the past two years. Respondents who were driving alone at the time of the survey were asked if they had used or tried an alternative mode. Respondents who were using an alternative mode when the survey was conducted were asked if they had used another type of alternative transportation, other than the mode they were currently using. Figure 11 displays these results.

Figure 11
Alternative Modes Used / Tried in Past Two Years
(All Region n = 6,050, Live in Arlington n = 551, Work in Arlington n = 506), multiple responses permitted

In the two years prior to the survey, almost a quarter (23%) of commuters used or tried another type of non-drive alone mode that were not using at the time of the survey. But respondents who lived and/or worked in Arlington used or tried alternative types of transportation at higher rates. Thirty-seven percent of Arlington residents and 38% of Arlington employees said they had used or tried another alternative.

Train was the type of transportation mentioned most frequently in all three groups. About 14% of regional workers tried or used Metrorail or commuter rail and 19% of Arlington residents and 24% of commuters who worked in Arlington tried a train. Arlington respondents also were more likely to try bus and bike/walk than were commuters region-wide. Trial use of carpool was similar across the three groups.

Reasons for Using Alternative Modes
Respondents who were using an alternative mode at the time of the survey (current users) were asked why they began using the modes. Respondents who tried an alternative within the past two years (trial users) were asked what motivated them to try them. Respondents mentioned a wide variety of reasons, reflecting both commute-related reasons and personal circumstances or personal needs. The reasons are listed in Table 11 for respondents who live in Arlington and those who work in Arlington.
## Table 11

**Reasons for Using Current Alternative Modes and Reasons for Trying Alternative Modes**

Live in Arlington and Work in Arlington – Current Users and Trial Users  
*(Significant differences highlighted)*

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Current Users</th>
<th>Trial Users</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Live in Arlington (n = 132)</td>
<td>Work in Arlington (n = 129)</td>
</tr>
<tr>
<td>Commute related reasons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Save money</td>
<td>12%</td>
<td>8%</td>
</tr>
<tr>
<td>- No parking, parking expense</td>
<td>10%</td>
<td>4%</td>
</tr>
<tr>
<td>- Save time</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>- Avoid congestion</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>- Found carpool partner</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>- Tired of driving</td>
<td>3%</td>
<td>10%</td>
</tr>
<tr>
<td>- Didn’t like previous mode</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>- Avoid / reduce stress</td>
<td>1%</td>
<td>7%</td>
</tr>
<tr>
<td>- Financial incentive offered</td>
<td>1%</td>
<td>10%</td>
</tr>
<tr>
<td>Personal circumstances reasons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Changed jobs/work hours</td>
<td>20%</td>
<td>19%</td>
</tr>
<tr>
<td>- No vehicle available</td>
<td>15%</td>
<td>9%</td>
</tr>
<tr>
<td>- Moved to new residence</td>
<td>14%</td>
<td>12%</td>
</tr>
<tr>
<td>- Convenient, close to work</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>- Weather</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>- Employer/worksite moved</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>- Get exercise</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>- Concerned about environment</td>
<td>1%</td>
<td>----</td>
</tr>
<tr>
<td>- Emergency use (e.g., car repair)</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Other</td>
<td>14%</td>
<td>6%</td>
</tr>
</tbody>
</table>

* Might add to more than 100% because multiple responses were permitted
** Each response in the “Other” category was mentioned by less than three percent of respondents

**Current Alternative Users** – The second and third columns show responses for live in Arlington and work in Arlington respondents who used alternative types of transportation the time of the survey. The most common commute-related reasons included: save money, save time, parking issues at worksite, avoid
congestion, and tired of driving. There was only one significant difference in commute-related reasons between respondents who lived in Arlington or those who worked in Arlington; 10% of Arlington workers said they started using an alternative mode because their employer offered a financial incentive, while only one percent of Arlington resident respondents cited this reason.

Both Arlington residents and Arlington workers also noted similar personal circumstances reasons to starting to use alternative modes: changed jobs or work hours, no vehicle available, moved to a new residence, or because they lived close to work so the mode was convenient.

**Respondents Who Tried Alternative Modes** – The fourth and fifth columns of Table 11 show reasons given by Arlington residents and Arlington workers who tried or used an alternative mode that they were not using at the time of the survey. In other words, these were reasons given for using types that respondents had tried, but were no longer using.

The top commute-related reasons generally mirror those that current alternative users offered; save time, save money, avoid congestion, and tired of driving were the most common commute-related reasons. But, as shown by the highlighted reasons in Table 11, trial users were more likely than were current users to note three personal reasons for the change – weather, get exercise, and emergency use only (e.g., car repair). This suggests these users started or tried the alternative out of necessity or for a short-term or occasional use reason. Trial users were less likely than were current users to mention changing jobs or home location as a reason, suggesting that these changes motivated more durable mode changes.

**Arlington Residents vs Residents of Nearby Areas** – Figure 12 presents several of the reasons shown in Table 11 with comparisons for Arlington residents and residents of three neighboring jurisdictions: District of Columbia, City of Alexandria, VA, and Fairfax County, VA. There were no statistical differences in the responses of Arlington residents compared with those of residents of the District of Columbia or Alexandria.

But several differences were evident between Arlington residents and Fairfax County residents. The most dramatic was in the percentage of respondents who said they started using alternative modes to save money. Only 12% of Arlington residents gave this reason, compared with 23% of Fairfax residents. Fairfax residents also were more likely than were Arlington residents to say they shifted to an alternative mode because they were tired of driving (9% of Fairfax residents vs 3% of Arlington residents). These two reasons are directly related to the cost or difficulty of the commute and the differences could be due, in part, to longer travel distances of Fairfax residents; on average, Fairfax residents travel 14.4 miles one way to work, nearly double the Arlington average of 8.2 miles. By contrast, Arlington residents were more likely than were Fairfax residents to cite parking issues, a job or work hours change, or lack of a personal vehicle for work travel.
Figure 12
Reasons for Using Current Alternative Modes by Home Location
Arlington n = 116, District of Columbia n = 125, Alexandria (VA) n = 88, Fairfax County (VA) n = 72
(Significant differences highlighted, dark outlines significant at 95%, light outlines significant at 90%)
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 work at client sites outside of the Washington region and workers, such as sales or equipment repair staff, who travel to multiple customer locations during the course of the day. The 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 2010 and, in some tables, results for 2007 and 2004.

Current and Potential Telework

The telework percentage for commuters who lived in Arlington (26%) was similar to that for all regional commuters (25%) and for commuters who worked in Arlington (27%).

About two in ten Arlington resident commuters 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 commuters who worked in Arlington.

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

Respondents who Currently Telework

Respondents were read the above definition of telework and asked if they would consider themselves teleworkers based on this definition. A total of 23.5% of all regional workers said they telework, either regularly or occasionally. A similar percentage, 24.4% of Arlington resident respondents said they telework, either regularly or occasionally. A slightly higher percentage, 25.4%, of respondents who worked in Arlington said they telework.

But teleworkers accounted for a higher percentage, 25%, of commuters, that is, workers who travel to a main work location on non-telework days. This base of commuters excludes workers who are self-employed and for whom home is their only workplace, workers who never make commute trips. This calculation reflects the role of telework in eliminating commute trips, thus is relevant for assessing travel and air quality benefits of telework. About 26% of Arlington resident commuters and 27% of Arlington employee commuters teleworked.
As indicated in Figure 13, the share of commuters who telework has exhibited steady growth since 2004. In 2004, 13% of regional commuters teleworked. By 2007, the percentage had risen to 19%. It grew still further to 25% in 2010. This pattern of growth was similar for Arlington resident commuters and for commuters who work in Arlington.

**Figure 13**


(2004 - All Region n = 6,851, Live in Arlington n = 565, Work in Arlington n = 516)
(2007 - All Region n = 6,168, Live in Arlington n = 561, Work in Arlington n = 412)
(2010 - All Region n = 6,050, Live in Arlington n = 551, Work in Arlington n = 506)

**Interest in Telework**

Respondents who did not telework and who were not self-employed/work at home full-time were asked if their job responsibilities would allow them to work at a location other than their main work place, at least occasionally. Table 12 presents these results. Most respondents who were not teleworking at the time of the survey said their jobs would not allow them to telework, but 31% of Arlington resident commuters and 31% of commuters who worked in Arlington said this would be possible.

Respondents for whom telework was a possibility were asked if they would want to telework. Two in ten (22%) percent of Arlington resident commuters and 21% of Arlington employee commuters said they would be interested in telework on an occasional or regular basis. These respondents “could and would” telework, if given the opportunity. These results suggest additional telework growth potential exists among both Arlington residents and commuters who worked in Arlington.

Among respondents who worked in Arlington, the potential for additional telework was most evident for non-profit employers and federal agencies; about a quarter of respondents who worked for these types of employers said they “could and would” telework, if given the opportunity, compared with 20% of private sector employees and 10% who worked for a state or local employer.
### Table 12
**Summary of Current and Potential Telework**
All Respondents who are not Self-Employed/Work at Home

<table>
<thead>
<tr>
<th>Telework Status</th>
<th>All Region (n = 6,050)</th>
<th>Live in Arlington (n = 551)</th>
<th>Work in Arlington (n = 506)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently teleworking</td>
<td>25%</td>
<td>26%</td>
<td>27%</td>
</tr>
<tr>
<td>Not teleworking</td>
<td>75%</td>
<td>74%</td>
<td>73%</td>
</tr>
<tr>
<td>- Job responsibilities allow telework and INTERESTED in telework (“could and would”)</td>
<td>21%</td>
<td>22%</td>
<td>21%</td>
</tr>
<tr>
<td>- Job responsibilities allow telework, but NOT INTERESTED in telework</td>
<td>9%</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>- Job responsibilities would NOT allow telework</td>
<td>45%</td>
<td>43%</td>
<td>42%</td>
</tr>
</tbody>
</table>

**Sources of Telework Information**

Respondents who teleworked were asked how they had learned about telework and if they had received telework information from Commuter Connections or MWCOG, either from Commuter Connections or from an MWCOG web site. The most frequently mentioned sources are shown in Figure 14.

**Live in Arlington** – The largest source of information for Arlington residents, was “special program at work/employer,” named by more than two thirds (68%) of respondents. This percentage has remained essentially the same since 2004. About two in ten (18%) Arlington resident respondents who teleworked said they “initiated request on my own” and five percent learned of telework through “word of mouth.”

**Work 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; 71% mentioned a “special program at work/employer” as the source of their telework information. 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

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.

About four in ten Arlington teleworkers started teleworking recently; 37% of teleworkers who lived in Arlington and 42% 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 2010, 58% of Arlington workers reported that their employer permitted some telework, compared with 38% in 2004. And in 2010, 32% 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 1.1 days per week. Teleworkers who worked in Arlington teleworked an average of 0.9 days per week. The average frequencies have dropped since 2004, perhaps reflecting increased use of telework by employees who must do most of their work in a central work location.
Length of Time Teleworking

As illustrated in Figure 15, about a third of Arlington residents who telework started teleworking relatively recently; 24% said they started teleworking within the past two years and 13% started within the past year. A quarter had been teleworking more than five years. On average, respondents had been teleworking about 47 months.

The time profile was similar for respondents who worked in Arlington; 42% started telework in the past two years and 23% started telework more than five years ago. On average, these respondents had been telework about 47 months.

Formal or Informal Telework Arrangement

Teleworkers were asked if they worked under a formal telework program or if it was an informal arrangements 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 16, more than half (54%) of all regional respondents said their employer offered some telework arrangement, with 29% reporting a formal arrangement and 25% saying the arrangement was informal.

Live in Arlington – The telework availability for respondents who live in Arlington was essentially the same as for the region; 56% said their employer had either a formal telework program (30%) or permitted employees to telework under an informal arrangement between an employee and a supervisor.
Work in Arlington – Telework opportunities were slightly greater for respondents who worked in Arlington; 35% said their employers had a formal telework program and 23% said their employer permitted employees to telework under an informal arrangement. The remaining 42% said their employers did not have any telework program or that they didn’t know about any program.

![Figure 16: Formal or Informal Telework Arrangements](image)

Telework Arrangements 2004 through 2010 – Figure 17 shows the incidence of telework arrangement in 2004, 2007, and 2010 for respondents who worked in Arlington. As is clear from the figure, the share of employers that offer or permit some form of telework has increased since 2004. In the 2004 SOC survey, only 38% of Arlington employee respondents noted that 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, as the figure also shows, the availability of informal telework has remained essentially constant since 2004, but growth has occurred in formal telework arrangements. In 2004, informal telework arrangements were more common (27%) than were formal arrangements (18%). In 2010, the proportions had reversed and formal telework arrangements predominated.
Formal or Informal Telework Arrangements – 2004, 2007, 2010
Respondents who Worked in Arlington
(2004 n = 516, 2007 n = 420, 2010 n = 494)

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 telework. It might be expected that these respondents would disproportionately work for employers that do not currently permit telework.

But as shown by Figure 18, the percentages of “Work in Arlington” respondents who were not teleworking but were “interested” in telework were quite similar across the three telework availability categories. Twenty percent of respondents who worked for an Arlington organization with no telework program expressed interest, compared with 17% of respondents who worked for organizations with a formal telework program and 26% 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. Nearly three-quarters (73%) 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 29% where a formal telework program was in place and 12% 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.
Telework Frequency

The frequency with which respondents teleworked is detailed in Figure 19.

**Live in Arlington** – About a quarter (23%) of Arlington resident teleworkers telework less than once per month and four in ten (39%) telework a few times each month. The remaining 38% telework at least one day per week. Sixteen percent telework most of their work days (three or more days per week).

**Work in Arlington** – The telework frequency distribution was similar for respondents who worked in Arlington. Two-thirds (67%) telework less than one day per week, 23% telework one or two days per week and 10% telework three or more days per week.

The average telecommute frequency was higher for respondents who lived in Arlington (1.1 days per week) than for those who worked in Arlington (0.9 days per week). In both cases, this frequency is lower than the 1.3 days per week average for all teleworkers region-wide.

Note that the average days per week frequency was lower than the frequency indicated earlier for respondents who teleworked during the survey week (2.4 days per week for live in Arlington and 1.9 days per week for work in Arlington). But the overall telework frequency presented in this section accounts for both the actually frequency of respondents who teleworked during the survey week and an expected weekly frequency for respondents who did not telework during the survey week, but who occasionally telework (e.g., less than once per week).
### Figure 19
Frequency of Telework

**Live in Arlington** (n = 154)
Average 1.1 days per week

- < 1 day per month: 23%
- 1 day per week: 13%
- 2 days per week: 9%
- 1-3 times per month: 39%
- 3+ days per week: 16%

**Work in Arlington** (n = 124)
Average 0.9 days per week

- < 1 day per month: 21%
- 1 day per week: 15%
- 2 days per week: 8%
- 1-3 times per month: 46%
- 3+ days per week: 10%

### Change in Average Frequency
Figure 20 shows the average telework frequency in 2004, 2007, and 2010, for all regional respondents and for Arlington respondents. The overall regional telework frequency of 1.3 days per week in 2010 represents a decline from the 1.5 days per week average observed in the 2007 SOC survey, but is on a par with the 1.3 days per week average estimated in the 2004 survey.

#### Figure 20
**Average Telework Frequency – 2004, 2007, 2010**

- **2004** - All Region n = 867, Live in Arlington n = 69, Work in Arlington n = 64
- **2007** - All Region n = 1,132, Live in Arlington n = 125, Work in Arlington n = 127
- **2010** - All Region n = 1,529, Live in Arlington n = 154, Work in Arlington n = 124
The results for respondents who live in Arlington appear to follow the regional pattern. But the average frequency for respondents who work in Arlington, which was above the regional average in 2004, shows a marked decline between 2007 and 2010 to well below the regional average. This is consistent with a large growth in the percentage of “occasional” telework. In 2007, 48% of Arlington teleworkers teleworked less than one day per week, in 2010, 67% teleworked occasionally. This could suggest that Arlington employers are extending telework to employees whose jobs are less easily done away from the central office or that employers are offering greater work location flexibility to employees.

**Telework Locations**

Nearly all of the Arlington teleworkers telework exclusively from home; 97% of Arlington resident teleworkers and 94% 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, such as transit, and respondents’ attitudes toward these options.

| 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 within a quarter mile of a bus stop and 92% said they lived less than one mile away |
| Commuters who worked in Arlington were more likely to have HOV lanes available on their commute route (54%) than were either commuters who lived in Arlington (30%) 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 (22%) than were either all regional commuters (45%) or commuters who worked in Arlington (43%). |

Public Transportation

Respondents who worked outside their homes were asked to name any public transportation companies that provided service in the area where they lived and the area where they worked. Respondents also were asked how far their homes were from the nearest bus stop and the nearest train station. Table 13 presents the results for the first question for respondents who live in Arlington and those who work in Arlington.

Bus and Train Service Available by Home and Work Area

**Live in Arlington** – Nearly all (98%) Arlington resident respondents said that they knew of some public transportation that provided service in their home area. Eighty-five percent knew of both bus and train service and 13% said they knew of bus service but not train. The remaining two percent of respondents said either that no bus or train companies provided service or that they didn’t know of any service.

The percentage who said they knew of transit companies that provided service in their work area was approximately the same as for the home area. Eight in ten (8%) said they knew of both bus and train service, 13% knew of bus service only, and one percent said that only that train service operated in the area where they worked. Six percent 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 Area

<table>
<thead>
<tr>
<th>Transit Service Operating</th>
<th>Live in Arlington</th>
<th>Work in Arlington</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Home Area (n = 563)</td>
<td>Work Area (n = 551)</td>
</tr>
<tr>
<td>Bus and train</td>
<td>85%</td>
<td>80%</td>
</tr>
<tr>
<td>Bus only - no train service</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Train only – No bus service</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>No transit in area / don’t know</td>
<td>2%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Work in Arlington – Nine in ten (95%) respondents who worked in Arlington said they knew of some public transportation that provided service in the area where they lived. Seventy-one percent knew of both bus and train service, about a quarter knew of bus service but not train, and one percent said they knew of train service but not bus service. Four percent of these respondents said that no bus or train companies provided service or that they didn’t know of any service.

The percentage of Arlington workers who said they knew of transit in their work area was approximately the same as for Arlington residents’ home area. Eighty-six percent cited both bus and train service, about one in ten (8%) knew of bus service only, and two percent said they knew only that train service was provided. Four percent said that no transit companies operated either bus or rail service in their work area.

Bus and Train Companies Offering Service
Table 14 presents the percentages of respondents who named specific public transportation companies that operated service in an area of Arlington that would be familiar to them – the home area of Arlington resident respondents and the work area of respondents who worked in Arlington.

Three-quarters of respondents who lived in Arlington said the regional Metrobus operated service where they lived and about the same percentage cited Metrorail as operating service. About the same percentage of respondents who worked in Arlington cited these services as available in their work area.

Responses were somewhat different, however, for services operated locally. Arlington residents were nearly twice as likely to mention that Arlington Transit’s ART bus (50%) was available where they lived as were respondents who worked in Arlington to mention this as a work area service (28%). By contrast, respondents who worked in Arlington were slightly more likely to mention services, such as Omni-Ride, Virginia Railway Express, and Loudoun Commuter Bus, which are based outside Arlington but provide commute hour service to some limited areas of the county.
Table 14
Public Transportation Companies that Provide Service
Arlington Residents’ Home Area and Arlington Workers’ Work Area
Percentage of all commuters citing the service

<table>
<thead>
<tr>
<th>Transit Companies</th>
<th>Live in Arlington Home Area Transit (n = 551)</th>
<th>Work in Arlington Work Area Transit (n = 506)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit Available</td>
<td>85%</td>
<td>86%</td>
</tr>
<tr>
<td><strong>Bus Companies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metrobus</td>
<td>77%</td>
<td>73%</td>
</tr>
<tr>
<td>Arlington Transit (ART)</td>
<td>50%</td>
<td>28%</td>
</tr>
<tr>
<td>Alexandria DASH</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Fairfax Connector</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>OmniRide</td>
<td>0%</td>
<td>4%</td>
</tr>
<tr>
<td>Loudoun Commuter Bus</td>
<td>&lt;1%</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Train Companies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metrorail/subway</td>
<td>79%</td>
<td>79%</td>
</tr>
<tr>
<td>Virginia Railway Express</td>
<td>10%</td>
<td>20%</td>
</tr>
<tr>
<td>MARC</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Amtrak</td>
<td>7%</td>
<td>4%</td>
</tr>
</tbody>
</table>

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

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.

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 within a quarter mile of a bus stop and 92% 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 respondents. On average, respondents who provided a distance lived 1.7 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.

**HOV and HOT Lanes**

**Availability and Use of HOV Lanes**

The survey also examined the availability and use of High Occupancy Vehicle (HOV) lanes. As indicated in Figure 22, three in ten (30%) regional commuters said there was a special HOV lane along their route to work. About a quarter of these commuters used these lanes. This equated to about nine percent of all regional commuters.

Commuters who lived in Arlington reported similar HOV availability and use as did all regional commuters; 33% said HOV lanes were available and eight percent of Arlington residents said they used a lane. But commuters who worked in Arlington noted much higher HOV availability and use. More than half (54%) of these commuters reported HOV availability and 24% said they used an HOV lane.

Arlington residents who regularly used the HOV lane for commuting estimated that using the lane saved them an average of 11 minutes for each one-way trip. This was not as large a saving as the 24 minutes saving noted by commuters who worked in Arlington.
Interest in HOT Lanes

The 2010 survey included two new questions related to commuters’ interest in High Occupancy Toll (HOT) lanes, which are under construction or being proposed for several jurisdictions. Respondents were asked about their interest in carpooling or vanpooling on a toll road that was free or reduced cost for carpools and vanpools. Respondents who were not ridesharing were asked: “Several jurisdictions in the Washington region are building or considering building toll roads. If you could use one of these roads for your trip to work and carpools and vanpools traveled for free or for a reduced toll, how likely would you be to start carpooling or vanpooling to use these roads?”

Respondents who were carpooling or vanpooling were asked how likely they would be to register their carpools/vanpools to receive the discount: “… If you could use one of these roads for your trip to work and carpools and vanpools that registered with a regional commute organization could use these roads for free or for a reduced toll, how likely would you be to register your carpool or vanpool?” Results for both of these questions are presented in Figure 23 for Arlington residents and Arlington workers.

About two in ten non-ridesharers who lived in Arlington said they were either very likely (9%) or somewhat likely (11%) to start ridesharing to use the lanes. Current ridesharers were more willing to register their carpools/vanpools to receive the discount; 24% were very likely and 35% were somewhat likely to register their carpool/vanpool to use the lanes at a discount.

Interest in HOT lanes was similar for non-ridesharing respondents who worked in Arlington; 23% said they would be likely to try ridesharing. Ridesharers who worked in Arlington were more willing than were residents to register a carpool or vanpool to use the lanes at a reduced price; 73% were either somewhat or very likely to register.
## Park & Ride Lot Availability and Use

Table 15 depicts commuters’ awareness of the locations of Park & Ride lots along their route to work. Forty-five percent of respondents across the region said they knew the locations of P & R lots along their commuting route. About a third (32%) said they did not know the locations. A quarter (23%) said there were no P & R lots along their route to work.

### Table 15

**Awareness of Park & Ride Lots Along Route to Work**

All Region, Live in Arlington, Work in Arlington

<table>
<thead>
<tr>
<th>Know Park &amp; Ride Location</th>
<th>All region (n = 6,045)</th>
<th>Live in Arlington (n = 551)</th>
<th>Work in Arlington (n = 506)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, know location of P&amp;R</td>
<td>45%</td>
<td>22%</td>
<td>43%</td>
</tr>
<tr>
<td>No, don’t know P&amp;R location</td>
<td>32%</td>
<td>46%</td>
<td>34%</td>
</tr>
<tr>
<td>No P&amp;R available</td>
<td>23%</td>
<td>33%</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; 43% knew the locations of lots. But 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 two percent 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 nine percent of all regional commuters who had used P&R lots and much less than the 10% of commuters who worked in Arlington who said they had used a P&R lot when commuting during the past year.
SECTION 6 ATTITUDES TOWARD TRANSPORTATION OPTIONS

Commuter Connections included a series of questions in the 2010 SOC survey to explore commuters’ impressions of the role transportation plays in creating a livable region. These questions focused on:

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

Arlington residents rated the quality of life in the Washington region higher than did all regional respondents. They also gave higher marks for their satisfaction with the regional transportation system than did respondents region-wide.

Quality of Life

The survey asked respondents to rate quality of life in the Washington region, using a five-point scale in which 1 meant “poor” and 5 meant “excellent. Two-thirds (66%) of all regional respondents gave either a 4 or 5 (excellent) rating for quality of life in the Washington region (Figure 24). Only nine percent gave a low rating (1 or 2), indicating they thought quality of life was poor.

Figure 24
Ratings for Quality of Life
(All region n = 6,525, Live in Arlington n = 596, Work in Arlington n = 550)
Arlington residents gave higher ratings than did respondents across the region. Eighty-eight percent of respondents who lived in Arlington rated quality of life a 4 or 5 and 31% gave the highest rating of 5. Respondents who worked in Arlington also gave overall higher ratings than did respondents region-wide; 73% rated quality of life as 4 or 5.

**Transportation Satisfaction**

Respondents region-wide gave lower ratings for their satisfaction with transportation in the region (Figure 25). Only 38% said they were satisfied (rating of 4 or 5 on a 5-point scale) and more than a quarter (27%) said they were not satisfied (rating of 1 or 2).

**Figure 25**

Ratings for Transportation Satisfaction

(All region n = 6,525, Live in Arlington n = 596, Work in Arlington n = 550)

Ratings for respondents who worked in Arlington were similar to those given by respondents region-wide. But as with quality of life, Arlington residents gave higher ratings than did respondents across the region. Fifty percent of respondents who lived in Arlington said they were satisfied with the regional transportation system and 18% rated their satisfaction a 5.
Commute Satisfaction

Seventy one percent of Arlington residents said they were satisfied with their commute, higher than the 63% for all regional respondents. Commute satisfaction was higher for Arlington residents than for residents of any other Washington area jurisdiction, except the District of Columbia. But commuters who worked in Arlington were less satisfied; 56% said they were satisfied and 17% said they were unsatisfied.

The 2010 survey included a new question that asked commuters to rate how satisfied they were with their trip to work. As shown in Figure 26, 71% of commuters who live in Arlington rated their commute satisfaction as a 4 or 5 on a 5-point scale, where 5 meant “very satisfied. Two in ten (17%) gave a rating of 3. One in ten rated their satisfaction as either a 1 – not at all satisfied (3%) or 2 (8%).

Figure 26
Satisfaction with Commute
Live in Arlington and Work in Arlington
(Live in Arlington n = 551, Work in Arlington n = 505)

Respondents who worked in Arlington gave lower marks for their commute satisfaction; 56% rated their commute satisfaction as a 4 or 5. More than a quarter (27%) gave a rating of 3 and 17% said they were not satisfied, indicted by ratings of 1 or 2.

Satisfaction by Home Jurisdiction – Commute satisfaction differed by where in the region the respondent lived. Figure 27 presents the percentages of residents of various jurisdictions who gave a rating of 4 or 5 (very satisfied) for commute satisfaction. Region-wide, 63% of respondents were satisfied with their commute.
Respondents who live in the central part of the region, particularly in the District of Columbia and Arlington, were notably more satisfied with their commute than were respondents who live farther from the regional core. Three quarters of District of Columbia residents and 71% of Arlington residents were satisfied, compared with about six in ten residents of Fairfax, Prince George’s, Prince William, and Montgomery counties and only 54% of Loudoun County residents.

**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; 25% of regional respondents, 27% of Arlington resident commuters, and 27% of commuters who work in Arlington gave this response.

This result was an improvement over the condition reported by Arlington workers in the 2004 SOC survey, when 35% of Arlington workers reported a more difficult commute. But it was a less positive result for Arlington residents; in 2004, only 22% said their commute had worsened since the past year.
Commuters who traveled to an outside work location were asked if their commute was easier, more difficult, or about the same as it was a year prior. As seen in Figure 28, the majority of respondents (63%) said their commute was about the same as a year ago. About a quarter (25%) said their commute was more difficult and 12% said their commute was easier. The results for Arlington respondents were similar to those for the region; 27% of respondents who live in Arlington and 27% of respondents who work in Arlington said they had a more difficult commute. And about one in ten said their commute was easier than last year.

**Figure 28**
Commute Easier, More Difficult, or Same as Last Year  
(All region n = 6,049, Live in Arlington n = 550, Work in Arlington n = 504)

![Graph showing commute ease](image)

**Reasons for Change in Ease of Commute**
Commuters who said their commute had changed were asked in what way it was easier or more difficult. The top section of Table 16 lists reasons that respondents’ commutes had improved and the bottom section shows the reasons that respondents’ commutes had worsened.

**Easier Commute** – The most common reasons for an easier commute was that it was shorter, faster, or less congested. Responses for these reasons were not statistically different for respondents who live in Arlington and those who work in Arlington. But Arlington employees were more likely than were Arlington residents to note that the trip was easier because they had started using a bus or train to get to work (26% of Arlington workers vs 7% of residents) or because construction along the commute route had ended (12% of Arlington workers vs 0% of residents). Results for the two Arlington sub-groups were about the same for other reasons.

**More Difficult Commute** – The primary reason given for a more difficult commute was that the commute route had become more congested. But a statistically higher share (57%) of Arlington workers noted this reason, compared to about 40% of Arlington residents. By contrast, Arlington residents’ commutes became more difficult because there was more construction along the commute route (25% of Arlington residents vs 7% of Arlington workers) or because buses and trains were more crowded (19% of residents vs 8% of workers). Other reasons were noted by approximately equal shares of respondents.
Table 16
Reasons for Easier or More Difficult Commute
(Significant differences highlighted)

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Live in Arlington</th>
<th>Work in Arlington</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easier Commute</td>
<td>(n = 54)</td>
<td>(n = 64)</td>
</tr>
<tr>
<td>Shorter distance</td>
<td>41%</td>
<td>26%</td>
</tr>
<tr>
<td>Trip is faster, takes less time</td>
<td>27%</td>
<td>17%</td>
</tr>
<tr>
<td>Route is less congested / road improvements</td>
<td>14%</td>
<td>18%</td>
</tr>
<tr>
<td>Started driving alone to work</td>
<td>13%</td>
<td>4%</td>
</tr>
<tr>
<td>More transit service / improved service</td>
<td>8%</td>
<td>3%</td>
</tr>
<tr>
<td>Started using transit to get to work</td>
<td>7%</td>
<td>26%</td>
</tr>
<tr>
<td>Construction along route ended</td>
<td>0%</td>
<td>12%</td>
</tr>
<tr>
<td>Gas prices are lower / gas costs less</td>
<td>0%</td>
<td>7%</td>
</tr>
<tr>
<td>More Difficult Commute</td>
<td>(n = 146)</td>
<td>(n = 117)</td>
</tr>
<tr>
<td>Route is more congested</td>
<td>40%</td>
<td>57%</td>
</tr>
<tr>
<td>More construction along route to work</td>
<td>25%</td>
<td>7%</td>
</tr>
<tr>
<td>Trip is slower, takes more time</td>
<td>20%</td>
<td>24%</td>
</tr>
<tr>
<td>Trains / buses are more crowded</td>
<td>19%</td>
<td>8%</td>
</tr>
<tr>
<td>Longer distance</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>Trains / buses unreliable</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>Gas prices higher</td>
<td>4%</td>
<td>2%</td>
</tr>
</tbody>
</table>

*Significant differences noted with bold, underlined percentages.

Change in Residential or Work Location

All respondents were then asked if they had made a change in their work location or residence in the past year. About 19% of commuters who lived in Arlington and 18% of commuters who worked in Arlington had made a change. But as Table 17 indicates, the ease or difficulty of the commute appears to have been related to moves for at least some of the respondents.

Live in Arlington – Seven in ten (70%) commuters who lived in Arlington and had not moved said their commutes were about the same as last year. Only four percent said their commutes were easier and 26% said their commutes were more difficult. Among resident commuters who had moved, a much smaller share reported a stable commute (26%). A third (34%) who had moved reported a more difficult commute, similar to the percentage of residents who had not moved. But a much higher percentage (40%) who had moved said their commutes were easier. This suggests that the move might have played a role in improving or worsening the commute, but that the move more often improved the commute.
### Table 17

**Commute Compared to Last Year**

by Made a Change in Work or Residence Location

(Significant differences highlighted)

<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>Live in Arlington</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Didn’t move (n = 440)</td>
<td>4%</td>
<td>70%</td>
<td>26%</td>
</tr>
<tr>
<td>Moved (n = 97)</td>
<td>40%</td>
<td>26%</td>
<td>34%</td>
</tr>
<tr>
<td>Work in Arlington</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Didn’t move (n = 405)</td>
<td>8%</td>
<td>68%</td>
<td>24%</td>
</tr>
<tr>
<td>Moved (n = 91)</td>
<td>39%</td>
<td>22%</td>
<td>39%</td>
</tr>
</tbody>
</table>

**Work in Arlington** – The results were similar for respondents who worked in Arlington. Among those who had not moved, 24% said their commute was worse and eight percent said it was easier. But among those who had moved, 39% said it was more difficult and 39% said their commute was easier.

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

Anecdotal reports have suggested that some commuters might move their residences and/or seek new jobs at least in part because they wanted to make their commute easier or less costly. The 2010 SOC survey included two questions to assess if commute factors had an influence on 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 to other factors they considered.

As illustrated in Table 18, 22% of Arlington residents and 14% of Arlington workers who had made a location change said they considered the length or ease of their new commute as one factor in their location decision. Smaller shares of respondents considered the cost of commuting and the commuting options that would be available to them for the new commute. And about a quarter of both groups said that commute factors were more important to them than were other factors they considered in making the change. There were no significant differences in any of the responses between Arlington residents and Arlington workers.
Table 18
Commuting Factors Considered in Home or Work Location Change Decisions
And Importance of Commute Factors Relative to Other Factors Considered

<table>
<thead>
<tr>
<th>Factors Considered</th>
<th>Live in Arlington (n = 106)</th>
<th>Work in Arlington (n = 99)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commute-related reasons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length or ease of commute</td>
<td>22%</td>
<td>14%</td>
</tr>
<tr>
<td>Cost of commuting</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Commuting options that would be available</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>Non-commute reasons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career advancement</td>
<td>21%</td>
<td>29%</td>
</tr>
<tr>
<td>Job opportunities for spouse</td>
<td>8%</td>
<td>6%</td>
</tr>
<tr>
<td>Size of house</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Cost of living</td>
<td>7%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Cost of house</td>
<td>7%</td>
<td>2%</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>7%</td>
<td>9%</td>
</tr>
<tr>
<td>Job requirements</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Quality of schools</td>
<td>6%</td>
<td>9%</td>
</tr>
<tr>
<td>Income</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>Importance of commute ease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less important than other factors</td>
<td>35%</td>
<td>29%</td>
</tr>
<tr>
<td>Same importance as other factors</td>
<td>38%</td>
<td>47%</td>
</tr>
<tr>
<td>More important than other factors</td>
<td>27%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Barriers to Ridesharing and Use of Public Transit

The top reasons why Arlington residents did not use transit for commuting included: “takes too much time,” “no service available,” and “need car during work day or before or after work.” These were also the top three reasons named by commuters who worked in Arlington.

Reasons given for not carpooling or vanpooling included: “don’t know anyone to ride with,” “work schedule is irregular,” and “need car during work day or before or after work.”
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. Table 20 presents reasons named for not using transit. In both tables, the reasons are grouped in to characteristics of the service and personal preferences or travel needs.

**Carpool / Vanpool Barriers**

Two reasons for not carpooling / vanpooling topped the list for both Arlington resident and Arlington workers. About four in ten said they didn’t know anyone with whom to carpool or vanpool and a third of respondent said they had irregular schedules. Other common reasons cited included needing or wanting use of a personal vehicle for work or personal travel, trip would take too long by carpool/vanpool, and that the respondent lived too close to work to make carpooling or vanpooling attractive.

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Live in Arlington (n = 290)</th>
<th>Work in Arlington (n = 266)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don’t know anyone to carpool/vanpool with</td>
<td>45%</td>
<td>37%</td>
</tr>
<tr>
<td>Takes too much time</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>Carpool / vanpool partners could be unreliable</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Doesn’t save time</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Personal Preferences / Travel Needs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work schedule irregular</td>
<td>33%</td>
<td>34%</td>
</tr>
<tr>
<td>Need my car before/after work</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>Need my car for work</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>Live close to work, close to other transportation</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>Don’t like to ride with strangers, prefer to be alone</td>
<td>2%</td>
<td>4%</td>
</tr>
</tbody>
</table>

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

**Transit Barriers**

Reasons cited for not using transit fell into two broad categories: characteristics of transit service and personal preferences or travel needs (Table 20). The top reasons overall for both respondents who lived in Arlington and those who worked in Arlington were that transit service was not available to make the commute trip and that transit takes too long. Small percentages of respondents said that transit was uncomfortable, unreliable, or too expensive. Common reasons in the personal travel characteristic category were that the respondents had irregular schedules, needed or wanted use of a personal vehicle for work or personal travel, or that the trip was too far to make by transit. These reasons have been quite consistent with those of previous SOC surveys.
Table 20
Reasons for Not Riding Transit to Work*

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Live in Arlington (n = 292)</th>
<th>Work in Arlington (n = 286)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Takes too much time</td>
<td>46%</td>
<td>35%</td>
</tr>
<tr>
<td>No train available in home/work area</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>No bus available in home/work area</td>
<td>13%</td>
<td>14%</td>
</tr>
<tr>
<td>Too uncomfortable / too crowded</td>
<td>4%</td>
<td>7%</td>
</tr>
<tr>
<td>Too expensive</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Bus / train is unreliable</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Have to transfer/too many transfers</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>Have to wait between buses/trains</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Personal Preferences / Travel Needs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work schedule irregular</td>
<td>12%</td>
<td>17%</td>
</tr>
<tr>
<td>Need my car before/after work</td>
<td>12%</td>
<td>13%</td>
</tr>
<tr>
<td>Need my car for work</td>
<td>12%</td>
<td>11%</td>
</tr>
<tr>
<td>Trip is too long/distance too far</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Need car for emergencies</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Commute is too short</td>
<td>4%</td>
<td>3%</td>
</tr>
</tbody>
</table>

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

Benefits of Alternative Mode Use

Both Arlington residents and Arlington workers cited personal and societal benefits of use of alternative modes. About half of Arlington residents and Arlington workers said that commuters who used alternative modes for commuting could save money. Other personal benefits were: help environment, use time productively, and avoid stress, named by about two in ten respondents.

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

Knowing the barriers that must be overcome to use of alternative modes is only part of understanding travel choice motivations. In the 2010 SOC survey, new questions were added to assess commuters’ opinions about the benefits generated by use of alternative modes and the importance of future investment in alternative transportation. Respondents were asked two questions:
“Now I have a few questions about benefits of traveling by carpool, vanpool, bus, or train. What personal benefits do people who use alternative modes receive from using these types of transportation?”

“What impacts or benefits does a community or region receive when people use alternative modes?”

**Personal Benefits of Alternative Mode Use**

When asked what personal benefits users of alternative modes receive from using alternative modes, 90% of Arlington resident respondents and 93% of respondents who work in Arlington named at least one benefit. Figure 29 details the responses to this question.

**Figure 29**

**Personal Benefits of Alternative Mode Use**

(Live in Arlington n = 602, Work in Arlington n = 551); significant differences highlighted

- **Save money / save gas**
  - Live in Arlington: 57%
  - Work in Arlington: 50%

- **Help environment**
  - Live in Arlington: 21%
  - Work in Arlington: 15%

- **Use time productively**
  - Live in Arlington: 17%
  - Work in Arlington: 20%

- **Avoid stress**
  - Live in Arlington: 15%
  - Work in Arlington: 22%

- **Have companionship**
  - Live in Arlington: 12%
  - Work in Arlington: 9%

- **Use HOV lane**
  - Live in Arlington: 6%
  - Work in Arlington: 9%

- **Reduce greenhouse gas**
  - Live in Arlington: 3%
  - Work in Arlington: 6%

- **Reduce wear & tear on car**
  - Live in Arlington: 6%
  - Work in Arlington: 10%

- **No need for a car**
  - Live in Arlington: 6%
  - Work in Arlington: 7%

- **Arrive on time**
  - Live in Arlington: 6%
  - Work in Arlington: 6%

- **Less traffic, avoid traffic**
  - Live in Arlington: 4%
  - Work in Arlington: 5%

- **Save time**
  - Live in Arlington: 4%
  - Work in Arlington: 10%

**Live in Arlington** – Saving money or gas topped the list of personal benefit for Arlington residents; it was cited by 57% of respondents. No other benefit came close in the percentage of responses. Seventeen percent said alternative modes help commuters use time productively (17%), reduce stress (15%), and have companionship during the commute (12%). Two in ten (21%) Arlington resident respondents said use of alternative modes helps the environment and six percent noted that it helps reduce greenhouse gases, indicating awareness that use of alternative modes has an impact of environmental quality and suggesting that alternative mode users can take pleasure in contributing to cleaner air.
Work in Arlington – Respondents who work in Arlington named similar benefits to those cited by residents, although with slightly different priorities. Save money/save gas, help the environment, use time productively, and avoid stress were the top four personal benefit cited by both Arlington residents and Arlington workers, but Arlington workers were slightly more likely than were Arlington residents to name “avoid stress” 22% and slightly less likely to mention saving money and helping the environment. By comparison, one in ten Arlington workers named reduce wear and tear on car and save time as person benefits, benefits named by only six percent and four percent, respectively, of Arlington residents.

Societal Benefits of Alternative Mode Use
When asked what benefits a region or community receives from use of alternative modes, 90% of respondents who live in Arlington and 91% of respondents who work in Arlington named at least one benefit. Figure 30 displays these responses.

Live in Arlington – Nearly seven in ten (69%) Arlington residents said that use of alternative modes could reduce traffic congestion. Respondents also recognized the societal value of environmental sustainability; 45% said it could reduce pollution or help the environment, 13% cited reduced greenhouse gases, and six percent mentioned saving energy. About one in twenty noted that society could benefit because roads did not deteriorate as quickly, presumably reducing the cost to maintain or repair roads.

Work in Arlington – Respondents who work in Arlington named similar benefits to those cited by residents, except that they were slightly more likely to mention reduced traffic / congestion as a societal benefit and slightly less likely than were Arlington residents to mention reducing pollution.
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; 6% named either Car Free Diet or Way to Go, two Arlington-specific campaigns. About half of Arlington residents and 58% of Arlington workers who recalled ads could name the sponsor.

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 14% of these respondents 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. Six in ten (60%) regional respondents said they had seen, heard, or read advertising about commuting in the year prior to the survey (Figure 31). This was slightly higher than the 54% who reported in the 2007 SOC survey that they had recently seen, heard, or read commute program advertising. Slightly higher percentages of Arlington resident respondents (66%) and respondents who worked in Arlington (66%) recalled seeing, hearing, or reading advertising for commute programs.

![Figure 31 Advertising Recall](chart)

Message Recall

Respondents were then asked what messages they recalled from this advertising. Figure 29 also notes that about two in ten respondents in each of the three groups could not cite a specific message, but 42% of all respondents in the region and 46% of Arlington respondents could name a message. Table 21 lists messages respondents remembered and the percentage of respondents who cited each message. The messages are divided into two categories: general ridesharing and commute services.
Table 21
Advertising Messages Recalled*
(Significant differences highlighted)

<table>
<thead>
<tr>
<th>Messages Recalled</th>
<th>All region (n = 3,951)</th>
<th>Live in Arlington (n = 602)</th>
<th>Work in Arlington (n = 551)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recall advertising, recall specific messages</td>
<td>42%</td>
<td>46%</td>
<td>46%</td>
</tr>
<tr>
<td>General Ridesharing Messages</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use the bus, train, Metrorail</td>
<td>14%</td>
<td>17%</td>
<td>16%</td>
</tr>
<tr>
<td>It would help the environment</td>
<td>6%</td>
<td>9%</td>
<td>7%</td>
</tr>
<tr>
<td>It saves money</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Carpool / vanpool</td>
<td>5%</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>It reduces traffic</td>
<td>4%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>It saves time</td>
<td>2%</td>
<td>1%</td>
<td>4%</td>
</tr>
<tr>
<td>Commute Program/Service Messages</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You can call for carpool/vanpool info</td>
<td>11%</td>
<td>9%</td>
<td>13%</td>
</tr>
<tr>
<td>Guaranteed Ride Home</td>
<td>9%</td>
<td>4%</td>
<td>8%</td>
</tr>
<tr>
<td>New trains or buses are coming</td>
<td>5%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Way to Go, Car Free Diet, give up car for a day</td>
<td>0%</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>Contact Commuter Connections</td>
<td>4%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>HOV lanes, HOT lanes</td>
<td>5%</td>
<td>3%</td>
<td>7%</td>
</tr>
<tr>
<td>Bicycle message, ride a bike to work</td>
<td>0%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Regional commute services available</td>
<td>3%</td>
<td>4%</td>
<td>3%</td>
</tr>
</tbody>
</table>

* Shows messages that were reported by at least 3% of respondents in one of the respondent groups.

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 14% of respondents region-wide and about the same percentages of commuters who live in Arlington (17%) and commuters who work in Arlington (16%). Percentage responses were similar for other messages across the three groups, except that a slightly higher percentage of Arlington resident respondents (9%) mentioned an environmental message compared to all respondents region-wide (6%).

Commute Program/Service Messages – Commuters cited several commute program or service messages. About 11% of regional respondents mentioned “you can call for carpool/vanpool information” and five percent said they had heard that “new trains or buses are coming.” These percentages were approximately the same for the two groups of Arlington respondents.
Nine percent of regional respondents and eight percent of respondents who work in Arlington mentioned Guaranteed Ride Home. Arlington residents were less aware of this message; only four percent mentioned recalling messages about GRH. Six percent of Arlington residents and three percent of respondents who work 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.

**Recall of Advertisement Sponsor**

Among commuters who recalled ads, 58% of those who lived in Arlington said they remembered who sponsored the ad. About a quarter (27%) named the Washington Metropolitan Area Transit Authority (WMATA, Metro), but 22% named Arlington County Commuter Services. Seven percent said the sponsor was Commuter Connections or MWCOG.

Among commuters who worked in Arlington, 50% who heard or saw ads remembered the ad sponsor. A quarter (23%) mentioned WMATA/Metro and 13% named Commuter Connections/ MWCOG. Nine percent said the sponsor was Arlington County Commuter Services.

**Advertising Sources / Media**

Table 22 presents the primary sources or media through which respondents heard, saw, or read commute advertising. The distribution of media / sources was generally the same for commuters who work in Arlington and commuters region-wide, except that twice as many commuters who work in Arlington (15%) mentioned hearing these messages as work as did commuters region-wide (7%). Respondents who live in Arlington also named similar sources as did respondents region-wide, expect that they were much less likely to mention the radio (26%) than were all regional respondents (40%) and more likely to mention receiving a postcard in the mail.

<table>
<thead>
<tr>
<th>Advertising Source/Media</th>
<th>All Region (n = 2,756)</th>
<th>Live in Arlington (n = 278)</th>
<th>Work in Arlington (n = 253)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio</td>
<td>40%</td>
<td>26%</td>
<td>35%</td>
</tr>
<tr>
<td>Television</td>
<td>24%</td>
<td>22%</td>
<td>22%</td>
</tr>
<tr>
<td>Newspaper</td>
<td>18%</td>
<td>21%</td>
<td>22%</td>
</tr>
<tr>
<td>Sign on transit vehicle, or at bus stop or Metro station</td>
<td>22%</td>
<td>26%</td>
<td>17%</td>
</tr>
<tr>
<td>At work</td>
<td>6%</td>
<td>7%</td>
<td>15%</td>
</tr>
<tr>
<td>Billboard/ad on side of the road</td>
<td>5%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Postcard in the mail</td>
<td>3%</td>
<td>9%</td>
<td>3%</td>
</tr>
<tr>
<td>Website/internet</td>
<td>2%</td>
<td>3%</td>
<td>2%</td>
</tr>
</tbody>
</table>

* Shows sources that were reported by at least 3% of respondents in one of the respondent groups.
Commute Advertising Impact

Likely to Consider Alternative Modes
The advertising appeared to have an effect for some respondents. About a quarter (24%) 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. About a quarter (25%) of respondents who live in Arlington and 21% of those who work in Arlington who had seen, heard, or read advertising said that they were more likely to consider ridesharing or using public transportation after seeing or hearing the advertising.

Commute Actions Taken After Hearing / Seeing Commute Advertising
Respondents who said they were more likely to consider alternative types of transportation after hearing the ads were asked if they had taken any actions to try to change how they commuted. About 19% of regional respondents who were aware of ads said they took some action. These respondents comprised about two percent of all regional commuters. The majority of respondents who took an action said they sought information or services for commuting, but five percent said they tried or started using an alternative mode for commuting.

Among commuters who live in Arlington, more than a quarter (27%) of those who said the ads made them likely to consider another type of transportation actually did take some action. Thirteen percent said they looked for more information about commute options or changed their work schedule or location and 14% tried or started using an alternative mode for commuting. Commuters who took an action equaled about three percent of the total Arlington resident commuters interviewed.

A similar share (27%) of commuters who worked in Arlington and said they were more likely to consider another type of transportation took an action to change their commute; 13% tried or started using an alternative mode for commuting. These commuters equaled about two percent of the commuters who worked in Arlington.

Awareness and Use of Regional Commuter Assistance Resources

About seven in ten Arlington resident commuters and three-quarters of commuters who worked in Arlington said they knew a regional transportation information number or website existed. About a third of commuters in both of these groups could name a specific number or website. Nine percent of Arlington residents named Arlington County Commuter Services as a source of commute information.

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. Two-thirds (66%) of all regional respondents said they knew such a number existed. Slightly higher percentages of respondents who live in Arlington (72%) and those who work in Arlington (75%) said there was a telephone number or website.
Awareness of regional commute information resources has grown significantly for Arlington respondents over the past six years. The 2010 level of 72% awareness was 27 percentage points higher than in 2004 (45%). Awareness also was higher for respondents who worked in Arlington; in 2004, 58% said there was a regional telephone number or website.

**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. About 30% of respondents who lived in Arlington and 34% of those who worked in Arlington could name a specific number or web site.

Table 23 summarizes the awareness of all numbers/web sites, as percentages of the total populations of workers who live in Arlington and those who work in Arlington. About 20% of respondents who lived in Arlington and 16% of those who worked in Arlington named a number or website of the Washington Metropolitan Area Transit Authority (WMATA) or Metro. An Arlington County resource was named by nine percent of Arlington resident respondents and three percent of Arlington workers. Commuter Connections was cited by about equal percentages of respondents who lived in Arlington (4%) and those who worked in Arlington (5%). Many other organizations were named, but each by very small percentages of respondents.

<table>
<thead>
<tr>
<th>Number or Web site</th>
<th>Live in Arlington (n = 602)</th>
<th>Work in Arlington (n = 551)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not aware of phone number/web site</td>
<td>28%</td>
<td>25%</td>
</tr>
<tr>
<td>Aware phone number/web site exists, but cannot name it</td>
<td>42%</td>
<td>39%</td>
</tr>
<tr>
<td>Aware of phone number/web site and can name it *</td>
<td>30%</td>
<td>34%</td>
</tr>
<tr>
<td>WMATA, Metro</td>
<td></td>
<td></td>
</tr>
<tr>
<td>202-637-7000, www wmata com</td>
<td>20%</td>
<td>16%</td>
</tr>
<tr>
<td>Commuter Connections / COG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-800-745-RIDE (7433), www commuterconnections.org,</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>www commuterconnections com, www mwcog org</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arlington County Commuter Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>www commuterdirect com, www commuterpage com</td>
<td>9%</td>
<td>3%</td>
</tr>
<tr>
<td>Other**</td>
<td>5%</td>
<td>12%</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

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.

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

Almost two-thirds (64%) of workers throughout the Washington region said they knew of an organization called Commuter Connections. The percentage was approximately the same (63%) for respondents who lived in Arlington and slightly higher (70%) among respondents who worked in Arlington.

Commuter Connections’ Services – Respondents who knew of Commuter Connections were asked what services the organization provided. Their responses are shown in Figure 32.

Figure 32
Awareness of Commuter Connections Services
(All region n = 4,398, Live in Arlington n = 376, Work in Arlington n = 378)
(Multiple responses permitted, significant differences highlighted)
About three in ten (30%) Arlington resident respondents and a similar percentage (27%) of workers who worked in Arlington said they didn’t know specific services, but most respondents cited services that Commuter Connections does provide. About three in ten Arlington resident respondents knew that Commuter Connections offered general rideshare information and a similar share said Commuter Connections offered help finding a carpool or vanpool partners. A slightly higher share of respondents who work in Arlington mentioned that help finding a rideshare partner was available. About a quarter of respondents in both Arlington groups said Commuter Connections offered a Guaranteed Ride Home and one in ten in each group mentioned program transit route and schedule information, information that can be accessed through links on Commuter Connections’ web site.

**Awareness and Use of Local Commuter Assistance Programs**

About half of Arlington residents and 38% of Arlington workers had heard of ACCS / The Commuter Store. 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 commuter 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 33 presents the percentage of respondents who said they had heard of each of the nine organizations, when prompted with the organizations’ names.

Awareness of these programs ranged from 10% to 53% of respondents who were asked the questions. Five of nine 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.

Respondents who lived in Arlington had greater awareness of ACCS/The Commuter Store than did respondents who worked in Arlington. Half (49%) of Arlington residents respondents said they had heard of one of these services, compared with 38% of respondents who worked in Arlington.
Use of Local Jurisdiction Services

Respondents who knew of a local organization were asked if they had contacted it. Figure 34 presents these results for the nine organizations, listed in the same order they appeared in Figure 33. Use ranged from two percent to 28% of respondents who had heard of the services.

Arlington County had the second highest use percentage; 21% of respondents who lived or worked in Arlington County said they contacted or used ACCS or The Commuter Store. Twenty-eight percent of respondents in the Loudoun County service area said they had contacted this organization. About two in ten respondents in Frederick and Prince William Counties contacted the commuter service organizations in their areas. All other local organizations had lower contact/use levels.

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; 65% of respondents who contacted a local program said they were seeking transit information.
**Figure 34**

*Used Local Jurisdiction Commute Assistance Program*

*Of Respondents who had Heard of Program*

(Frederick n = 326, Arlington n = 421, Loudoun n = 259, Southern Maryland n = 435, Prince William n = 314, Prince George's n = 177, Montgomery n = 168, Alexandria n = 127, Fairfax n = 121)

- Prince William (PRTC/Omni Match) 20%
- TransIT Services of Frederick Co 18%
- Arlington Co Commuter Services, The Commuter Store 21%
- Loudoun Co Office of Transportation 28%
- Tri-County Council (Southern MD) 11%
- RideSmart (Prince Georges) 2%
- Montgomery Co Commuter Services 13%
- Alexandria Rideshare 9%
- Fairfax RideSources 2%

---

**Awareness and Use of Regional Guaranteed Ride Home Program**

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

**Awareness of GRH**

Survey respondents who did not work at home all the time were asked about their awareness and use of GRH programs. First, they were asked if they knew of a regional GRH program available for commuters who rideshare or use public transportation. About a quarter (27%) of regional respondents replied there was such a program, 39% mentioned there was no such program, and the remaining 34% were unsure.

Arlington residents’ awareness was similar to that for all regional respondents; 31% said there was a regional GRH program, 31% said there was not a program, and 38% said they were unsure. Respondents who worked in Arlington were slightly more likely to know about the program; 36% said they knew of a regional GRH program, 28% said no program existed, and 36% were unsure.

**Use of GRH**

Five percent of regional commuters said they had registered for or used a GRH service in the past two years. These respondents included respondents who had previously mentioned that they registered for or used a GRH service offered by their employer. Percentages of GRH use were similarly low for Arlington resident respondent (4%) and respondents who worked in Arlington (2%).
SECTION 8 COMMUTER ASSISTANCE SERVICES PROVIDED BY EMPLOYERS

The SOC survey also included questions on commute assistance services and benefits that employer might provide to employees. Respondents who were not self-employed, working only at home were asked about two types of services: 1) alternative transportation incentives and support services, and 2) parking facilities and services.

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. Seven in ten Arlington resident commuters and more than three-quarters of Arlington employees said their employers offered commute assistance services. This was compared with only 61% of all regional commuters who said they had access to these services.

Arlington respondents were particularly more likely than were all regional respondents to say they had access to SmarTrip / transit subsidy; 54% of respondents who lived in Arlington and 68% of respondents who worked in Arlington said their employers offered this service, compared with 45% of all regional commuters.

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.

Commuter Incentive / Support Services Offered by Employers

More than six in ten (61%) regional workers said their employer offered one or more commute incentives or support services. Arlington respondents were more likely to have access to these services; 71% of respondents who lived in Arlington and more than three-quarters (77%) of respondents who worked in Arlington said their employers offered one or more commute assistance services.

Change in Availability of Services from 2004 to 2010

The percentage of all regional workers who had access to commute services in 2010 (61%) was eight percentage points higher than that measured in the 2004 SOC, when 53% mentioned having services available. Availability also rose for Arlington respondents. In 2010, 71% of Arlington residents said their employers offered services, compared with 64% in 2004. The increase was less striking for respondents who worked in Arlington; in 2010, 77% said they had access to commute services, compared with 73% in 2004. But the availability for this group of respondents already was quite high in 2004.

Types of Services Offered in 2010

Figure 35 shows the percentages of all regional respondents and those who work in Arlington that said their employers offer each of several services. The most commonly offered service across the region was SmarTrip /other subsidies for transit/vanpool, mentioned by 45% of all regional employers. But higher shares of respondents who lived in Arlington (54%), and respondents who worked in Arlington (68%) reported that they had access to this service.
Arlington respondents also cited greater availability of several other services than did all regional respondents. About a third of Arlington respondents mentioned access to information on commute options, compared with a quarter of commuters region-wide. And about three in ten Arlington respondents noted bicycling/walking services, which were mentioned by about a quarter of all respondents. Respondents in all three groups were about equally likely to cite preferential parking, carpool subsidies, and GRH.

Services Offered by Employer Type and Size

**Employer Type** – Arlington workers who worked for a government agency reported the greatest access to commute services; 95% of federal agency workers and 91% of state/local agency workers said their employer offered commute services, compared with two-thirds of non-profit organization employees and 62% 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 46% of state / local agency workers said they had commute services available at work.
Table 24

**Alternative Mode Incentives and Support Services Offered by Employer Type and Size**

All Regional Workers and Respondents Who Work in Arlington

(Significant differences highlighted)

<table>
<thead>
<tr>
<th>Employer Category</th>
<th>Region</th>
<th>Work in Arlington</th>
</tr>
</thead>
<tbody>
<tr>
<td>All employers (Region n = 5,899; Arlington n = 547)</td>
<td>61%</td>
<td>77%</td>
</tr>
<tr>
<td><strong>Employer Type</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal agency (Region n = 1,593; Arlington n = 187)</td>
<td>89%</td>
<td>95%</td>
</tr>
<tr>
<td>State / local agency (Regional n = 856; Arlington n = 52)</td>
<td>46%</td>
<td>91%</td>
</tr>
<tr>
<td>Non-profit organization (Regional n = 761; Arlington n = 62)</td>
<td>64%</td>
<td>66%</td>
</tr>
<tr>
<td>Private employer (Regional n = 2,481; Arlington n = 193)</td>
<td>50%</td>
<td>62%</td>
</tr>
<tr>
<td><strong>Employer Size</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 – 25 employees (Region n = 1,244; Arlington n = 99)</td>
<td>41%</td>
<td>42%</td>
</tr>
<tr>
<td>26 – 100 employees (Region n = 1,186; Arlington n = 99)</td>
<td>47%</td>
<td>71%</td>
</tr>
<tr>
<td>101 – 250 employees (Region n = 820; Arlington n = 73)</td>
<td>58%</td>
<td>80%</td>
</tr>
<tr>
<td>251 – 999 employees (Region n = 902; Arlington n = 86)</td>
<td>71%</td>
<td>95%</td>
</tr>
<tr>
<td>1,000+ employees (Region n = 1,601; Arlington n = 134)</td>
<td>82%</td>
<td>88%</td>
</tr>
</tbody>
</table>

**Employer Size** – Table 24 also shows the availability of commute services for respondents region-wide and those who worked in Arlington by their employer size. About four in ten Arlington workers who worked for very small companies (25 or fewer employees) had access to commute services, compared with 71% who worked for organizations with between 26 and 100 employees and at least eight in ten respondents who worked for employers with more than 100 employees.

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 mid-sized employers in Arlington than region-wide. Region-wide, only 47% of respondents who worked for employers with 26 to 100 employees and 58% of respondents who worked for employers with 101-250 employees said they had any services, compared with 71% and 80%, respectively, of Arlington workers.
Use of Commuter Assistance Services/Benefits

Respondents whose employers offered incentives/support services were asked if they had ever used these services. About 57% of respondents who worked in Arlington who had services available said they had used one or more of the services. The results for use of specific services are provided in Figure 36.

![Figure 36: Use of Employer-Provided Incentives/Support Services – Work in Arlington](chart)

Of Employees Who had Access to Services
(Transit/vanpool subsidy n = 315, Information on travel options n = 188, GRH n = 52, Bicycling / walking services n = 150, Preferential parking n = 127, Carpool subsidy n = 46)

The most commonly used incentives/support services were transit / vanpool subsidies, used by 54% of respondents who said their employers offered this service and commute information, used by 37% of respondents who had access to this service. About two in ten respondents had used bike/walk services, carpool subsidies, and preferential parking. Guaranteed Ride Home was used by nine percent of respondents who said their employers offered this service.

Parking Facilities and Services

Respondents also were asked about the parking services available at their worksites. These results are shown in Table 25.

Availability of Parking

The majority (63%) of respondents in the region said their employers provided “free parking” at the worksite. An additional 2% said they had access to “free parking off-site.” About three in ten said they had to pay at least part of the cost of parking; 22% paid the total cost and seven percent paid a portion of the cost with the balance paid by their employers.
**Table 25**  
Parking Facilities and Services Offered by Employers

<table>
<thead>
<tr>
<th>Parking Services</th>
<th>Employer Offered Parking Services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All region (n = 5,819)</td>
</tr>
<tr>
<td>Free on-site parking</td>
<td>63%</td>
</tr>
<tr>
<td>Free off-site parking</td>
<td>2%</td>
</tr>
<tr>
<td>Employee pays all parking charges</td>
<td>22%</td>
</tr>
<tr>
<td>Employee and employer share parking charge</td>
<td>7%</td>
</tr>
<tr>
<td>Parking discounts for carpools/vanpools</td>
<td>16%</td>
</tr>
</tbody>
</table>

* Percentages of CP/VP parking discounts are calculated on a base of respondents who do not have free parking. These sample sizes were: All region n = 1,610; Live in Arlington n = 229; Work in Arlington n = 196

Free parking was not as common for respondents who lived in Arlington or for those who worked in Arlington. Only 47% of respondents who lived in Arlington and 50% of those who worked in Arlington said free parking was available either on-site or off-site. Almost half (47%) of Arlington resident respondents said they either paid the entire cost of parking (36%) or part of the cost (11%) if they drove to work. Similar percentages of respondents who worked in Arlington had to pay for parking.

**Parking Services by Employer Type and Size**

**Employer Type** – As with commuter assistance services, availability of parking depended on the type and size of respondents’ employers. Region-wide, Federal agency employees and employees of non-profit organizations were least likely to have free parking. About 49% of all regional respondents who worked for Federal agencies and 50% of respondents who worked for a non-profit said their employer provided free parking. By contrast, 77% of respondents who worked for state and local agencies and 71% of respondents who worked for private employers had free parking.

**Employer Size** – Respondents who worked for large employers were less likely to have free parking. Region-wide, about half (51%) of respondents employed by firms with 1,000 or more employees had free parking, compared with 68% of respondents who worked for employers with 250 or fewer employees.

**Commute Mode by Commuter Assistance Services/Benefits Offered**

Figure 37 presents the percentages of respondents who used various commute modes by whether or not their employer provides commuter assistance services or benefits. Respondents whose employers provided alternative mode incentives and support services were substantially less likely to drive alone (51%) than were respondents whose employers did not provide these services (71%). Respondents who had these services at their worksites used train to commute at more than twice the rate (24%) as did respondents who did not have these services (10%). The differences in mode use for other alternative modes are not statistically significant.
Figure 38 presents a comparison of mode use rates for respondents who had free on-site parking at work and those who either had to pay for parking or who had no parking at all. The difference in drive alone rates for these two groups was dramatic; 71% of respondents who had free parking drove alone, compared with only four in ten (41%) respondents who did not have this benefit. Respondents who had to pay for parking used all alternative modes at higher rates than did respondents who had free parking.

In each of the three alternative mode categories – train, carpool/vanpool, and bus, the percentage of commuters who used each alternative mode was at least twice as high for respondents who did not have free parking as for respondents who did. These differences were all statistically significant.

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.
Figure 38
Primary Commute Mode
by Free Parking Available at Work

(Free parking offered n = 247, Free parking not offered, n = 236)
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 percent¹ 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

Survey responses from the State of the Commute 2010 were expanded numerically by expansion and weighting factors. These factors were applied to each survey result to align them with published, employment and ethnic information for the study area. The process developed for the 11-area, Washington, DC metropolitan region is described below in detail.

The Bureau of Labor Statistics’ Local Area Unemployment Statistics (LAUS) for January-March, 2010, 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 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. This expansion methodology is the same as the method used for the 2007 State of the Commute. Table A-1 shows the number of employed households 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.

¹ 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.
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 2010)</th>
<th>Number of Working Persons Interviewed</th>
<th>Expansion Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexandria City, VA</td>
<td>89,401</td>
<td>602</td>
<td>149</td>
</tr>
<tr>
<td>Arlington Co., VA</td>
<td>131,511</td>
<td>602</td>
<td>218</td>
</tr>
<tr>
<td>Calvert Co., MD</td>
<td>44,897</td>
<td>608</td>
<td>74</td>
</tr>
<tr>
<td>Charles Co., MD</td>
<td>71,299</td>
<td>603</td>
<td>118</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>298,148</td>
<td>602</td>
<td>495</td>
</tr>
<tr>
<td>Fairfax Co., VA</td>
<td>568,119</td>
<td>602</td>
<td>944</td>
</tr>
<tr>
<td>Frederick Co., MD</td>
<td>113,284</td>
<td>602</td>
<td>188</td>
</tr>
<tr>
<td>Loudoun Co., VA</td>
<td>165,979</td>
<td>602</td>
<td>276</td>
</tr>
<tr>
<td>Montgomery Co., MD</td>
<td>480,100</td>
<td>602</td>
<td>798</td>
</tr>
<tr>
<td>Prince George’s Co., MD</td>
<td>410,487</td>
<td>602</td>
<td>682</td>
</tr>
<tr>
<td>Prince William Co., VA</td>
<td>196,553</td>
<td>602</td>
<td>327</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,569,778</strong></td>
<td><strong>6,629</strong></td>
<td></td>
</tr>
</tbody>
</table>

Ethnicity weighting factors were applied to survey results from each area in the District of Columbia region (two cities and nine counties). Weighing factors were calculated using ethnic breakdowns published in U.S. Census Bureau’s American Community Survey (ACS) 2006-2008 series. This series was used because the ethnic breakdowns were based on employment status of the households living in the study area. The ACS is an on-going survey which surveys populations throughout the United States and thus includes the 11 study areas. The weighting factor is calculated by the ratio of the ACS ethnic distribution and the survey ethnic distribution. This is shown in Table A-2 below.
### Table A-2 – Ethnic Weighting Factors by Survey Area

<table>
<thead>
<tr>
<th>Survey Area</th>
<th>Ethnic Weighting Factors*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hispanic</td>
</tr>
<tr>
<td>Alexandria City, VA</td>
<td>2.21</td>
</tr>
<tr>
<td>Arlington Co., VA</td>
<td>1.88</td>
</tr>
<tr>
<td>Calvert Co., MD</td>
<td>0.14</td>
</tr>
<tr>
<td>Charles Co., MD</td>
<td>0.21</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>1.36</td>
</tr>
<tr>
<td>Fairfax Co., VA</td>
<td>2.05</td>
</tr>
<tr>
<td>Frederick Co., MD</td>
<td>1.64</td>
</tr>
<tr>
<td>Loudoun Co., VA</td>
<td>2.11</td>
</tr>
<tr>
<td>Montgomery Co., MD</td>
<td>2.44</td>
</tr>
<tr>
<td>Prince George’s Co., MD</td>
<td>1.85</td>
</tr>
<tr>
<td>Prince William Co., VA</td>
<td>2.07</td>
</tr>
</tbody>
</table>

*Rounded to the nearest two decimals.
The product of the expansion factor and the weighting factor generates the final expansion/weighting factor. Table A-3 shows the value for each of these factors by area.

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

<table>
<thead>
<tr>
<th>Survey Area</th>
<th>Final Expansion/Weighting Factors*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hispanic</td>
</tr>
<tr>
<td>Alexandria City, VA</td>
<td>329</td>
</tr>
<tr>
<td>Arlington Co., VA</td>
<td>411</td>
</tr>
<tr>
<td>Calvert Co., MD</td>
<td>10</td>
</tr>
<tr>
<td>Charles Co., MD</td>
<td>25</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>673</td>
</tr>
<tr>
<td>Fairfax Co., VA</td>
<td>1934</td>
</tr>
<tr>
<td>Frederick Co., MD</td>
<td>309</td>
</tr>
<tr>
<td>Loudoun Co., VA</td>
<td>582</td>
</tr>
<tr>
<td>Montgomery Co., MD</td>
<td>1942</td>
</tr>
<tr>
<td>Prince George’s Co., MD</td>
<td>1263</td>
</tr>
<tr>
<td>Prince William Co., VA</td>
<td>676</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.

The expansion/weighting factors allow for the proper representation of workers in each geographical area when analyzing the survey results. For example, without the expansion/weighting factor, the final estimated 44,897 workers in Calvert County would have the same representation as the estimated 568,119 workers in Fairfax County. By using the expansion/weighting factor shown in the table above for each sub-area, the number of workers and ethnicity has been adjusted so that each worker is equally represented within the region.

### 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 2010 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>6,629</td>
<td>95% ± 1.2%</td>
</tr>
<tr>
<td>Study Portion of Virginia</td>
<td>3,010</td>
<td>95% ± 1.8%</td>
</tr>
<tr>
<td>Study Portion of Maryland</td>
<td>3,017</td>
<td>95% ± 1.8%</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>602</td>
<td>95% ± 4.0%</td>
</tr>
<tr>
<td>Individual County or City Level</td>
<td>600</td>
<td>95% ± 4.0%</td>
</tr>
<tr>
<td><strong>Sub-Area or Sub-Population</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teleworkers</td>
<td>1,538</td>
<td>95% ± 2.5%</td>
</tr>
<tr>
<td>Carpoolers (including casual)/Vanpoolers</td>
<td>499</td>
<td>95% ± 4.4%</td>
</tr>
<tr>
<td>Transit Users</td>
<td>1,145</td>
<td>95% ± 2.9%</td>
</tr>
<tr>
<td>Bike Users or Walkers</td>
<td>207</td>
<td>95% ± 6.8%</td>
</tr>
<tr>
<td>Commuters Aware of GRH</td>
<td>1,862</td>
<td>95% ± 2.3%</td>
</tr>
</tbody>
</table>
Figure A-1. Figure of Weighting and Expansion for Working Households

Example: Arlington County, MD

Objective: Apply the survey results (602 respondents) to the Bureau of Labor Statistics (480,100) with adjustments for ethnicity from the U.S. Census Bureau’s American Community Survey to represent employed individuals by ethnicity living in Montgomery County (479,871).

Survey Results
602 Respondents

Develop Expansion Factor

131,511 / 602 = 218

Expanded Survey Results
131,511 Individuals

Apply Weight Factor

Black 1.64 x 218 = 365
Hispanic 1.88 x 218 = 411
White 0.84 x 218 = 183
Other 1.74 x 218 = 380

Expanded/ Weighted Survey Results
131,342 Individuals

Note:
1. 218 x 602 = 131,511 individuals.
2. Final expansion/weight factors estimates workers by ethnicity for Montgomery County.
3. Note: the difference from 480,100 individuals is due to rounding.
APPENDIX B – SURVEY QUESTIONNAIRE

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? (ARRANGE CALL BACK)

SCREENING QUESTIONS

S1 Is anyone in your household employed? By employed, I mean a wage or salaried employee, military or self-employed…

INTERVIEWERS: SCREEN OUT KEEPING OWN HOUSE (HOUSEWIFE), DISABLED, RETIRED, STUDENT, VOLUNTEER OR UNEMPLOYED-LOOKING FOR WORK

1 yes (SKIP TO QS4)
2 no (THANK AND TERMINATE)

S4 Are you an employed person who is at least 16?

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 What is your employment status right now -- 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?

__________

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

AUTOCODE ALEXANDRIA (EXCEPT 22311)
IF Q1a = 22301, 22302, 22304, 22305, OR 22314, AUTOCODE Q2 = 1 (Alexandria), THEN SKIP TO Q3
IF Q1a = 22303, 22306, 22307, 22308, 22309, 22310, OR 22315, AUTOCODE Q2 = 6 (Fairfax), THEN SKIP TO Q3
AUTOCODE TAKOMA PARK, MD, TAKOMA DC
IF Q1a = 20903, 20910, 20912, 20913, AUTOCODE Q2 = 9 (Montgomery), THEN SKIP TO Q3
IF Q1a = 20011 OR 20012, AUTOCODE Q2 = 5 (DC), THEN SKIP TO Q3

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

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

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

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

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

AUTOCODE MANASSAS, MANASSAS PARK
IF Q1a = 20110 OR 20113, AUTOCODE Q2 = 11, THEN SKIP TO Q3
IF Q1a = ANY OTHER ZIP CODE, ASK Q2

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

2 In what county (or Independent City) do you live now? (DO NOT READ)
   1 Alexandria City, VA
   2 Arlington Co., VA
   3 Calvert Co., MD
   4 Charles Co., MD
   5 Washington, DC (District of Columbia)
   6 Fairfax Co., VA (City of Falls Church, City of Fairfax)
   7 Frederick Co., MD (City of Frederick)
   8 Loudoun Co., VA (South Riding)
   9 Montgomery Co., MD (City of Rockville, City of Gaithersburg, City of Takoma Park, Silver Spring)
   10 Prince George’s Co., MD(City of Greenbelt, City of College Park, City of Bowie)
   11 Prince William Co., VA (City of Manassas, City of Manassas Park)
   12 Other (SPECIFY) ___________________________ (THANK AND TERMINATE)
   88 Don’t know (THANK AND TERMINATE)
   99 Refused (THANK AND TERMINATE)
3 In what county (or independent city) do you work? (IF “ALL OVER”, ASK: Where do you work the most?)

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

COMMUTE PATTERNS

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 (GO BACK TO QS5)

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

______ days
______ “0”, (CODE AS WKALL, THEN SKIP TO Q57)

6 And how many weekdays do you commute to a work location outside your home? (IF RESPONDENT SAYS, “VARIRES 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, 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) (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 or flexible work schedule, for example, a full-time work week in fewer than five days or a schedule with flexible start and end times?
    1. Yes (CONTINUE)
    2. No (SKIP TO Q13)

12. What type of schedule do you use? (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. flex-time or flexible work hours (core hours with flexible start & stop)
    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 workplace.” 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 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 Q15)
9 DK/Ref (SKIP TO 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 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.

<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>
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</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</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 sick, vacation day)</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</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>
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<tr>
<td>21. N/A</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>88. N/A</td>
<td></td>
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</tr>
</tbody>
</table>

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

Number of minutes ______________________________
Time varies ______________________________
888 Don’t know
999 Refuse

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

Number of miles ______________________________
888 Don’t know
999 Refuse

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>Number of months</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
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<tbody>
<tr>
<td>N/A</td>
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<tr>
<td>drive alone</td>
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DEFINE RECENT MODE = Q18 MODE WITH FEWEST MONTHS
IF TIE FOR RECENT MODE, DESIGNATE BOTH MODES AS RECENT MODE

Skip Q19a – Q20b (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 – Q20b (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. DO NOT ACCEPT MULTIPLES FOR 16-21 OR 99

IF Q12 = 1, 2, OR 3 AND RESPONDENT DOES NOT MENTION "CWS day off" (RESPONSE 1), ASK:  
“Your typical 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
15 walk
16 N/A
17 N/A
18 N/A
19 Taxi
20 always used, only used <RECENT MODE Q15>
21 not working then, not in DC area then
99 Don’t know, refused

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

Personal circumstances/preferences
1 changed jobs/work hours
2 moved to a different residence
3 employer or worksite moved
4 spouse started new job
5 save money
6 save time
7 gas prices too high
8 tired of driving
9 prefer to drive, wanted to drive
10 safety
11 no vehicle available
12 car became available, additional car in household
13 to stay with family/children
14 HOV lanes too congested
15 Congestion (other)
16 always used
17 close to work or transportation pick up/drop off location
18 afraid of or didn’t like previous form of transportation
19 stress
20 weather
21 bought hybrid vehicle
22 convenient (NOT AN ANSWER, PROBE FOR WHY IT’S CONVENIENT)
23 to get exercise
24 concerned about the environment, global warming
### Commute Services/Programs
25 new option that became available  
26 special program at work  
27 pressure or encouragement from employer  
28 GRH  
29 Ozone action/Code Red days  
30 no parking  
31 parking expense, parking cost too high  
32 found carpool partner  
33 NuRide (VA carpool incentive)  
34 SmartTrip/SmartBenefit, Metrocheck, 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

#### In the past two years, have you used or tried any other type of transportation between home and work that you’ve not already mentioned?

1 yes  
2 no (SKIP TO INSTRUCTIONS BEFORE Q28)

#### What was that type of transportation? (DO NOT READ; CHECK ALL THAT APPLY. IF Q23 = Q15 ANY DAY OR Q19a, INTERVIEWER PROMPT, “YOU ALREADY MENTIONED <MODE Q15, Q19a>, DID YOU TRY ANY OTHER TYPE OF TRANSPORTATION?”

1 compressed work schedule day off  
2 telecommute  
3 drive alone  
4 motorcycle  
5 carpool, including carpool with family member, dropped off  
6 casual carpool (slugging)  
7 vanpool  
8 buspool  
9 bus  
10 Metrorail  
11 MARC  
12 VRE  
13 AMTRAK, other train  
14 bicycle  
15 walk  
16 N/A  
17 N/A  
18 N/A  
19 taxi  
20 N/A  
21 N/A  
99 don’t know, refused
24 How long did you use <Q23 mode(s)>? (DO NOT READ)

_______ months (CONVERT YEARS TO MONTHS)

0    less than one month
888    occasionally (tried one, emergency use)
999    still using
-997    Don’t know

SET Q23LONG = Q24, LONGEST DURATION
IF Q24 = 999 (STILL USING) FOR ANY MODE, THAT MODE = Q23LONG
IF Q24 = 888 (occasionally) FOR ANY MODE, THAT MODE = Q23LONG, UNLESS RESPONDENT MENTIONED BOTH OCCASIONAL MODE AND OTHER MODE, THEN USE OTHER MODE

26 What prompted you to use or try this type of transportation? (DO NOT READ; IF MORE THAN THREE REASONS GIVEN, PROBE FOR 3 MOST IMPORTANT AND CODE ONLY THOSE 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
33    NuRide (VA carpool incentive)
34    SmartTrip/SmartBenefit, Metrochek, transit subsidy, vanpool subsidy
35    Commuter Choice Maryland
**2010 State of the Commute Survey Results – Arlington County, VA**

**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 INTRO 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

**TELECOMMUTE**

**INSTRUCTIONS BEFORE Q34**

**IF Q13 = 1 OR Q15 = 2 ANY DAY, CONTINUE, OTHERWISE, SKIP TO INTRO BEFORE Q44**

**IF TELEALL, DO NOT READ INTRO TO Q34, SKIP DIRECTLY TO Q34**

**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 federally funded
facilities located around the Washington area that allow government and non-government employees to work closer to home some or all of the time.)

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

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

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

38. How many miles is it one way from your home to this location? (IF LESS THAN ONE MILE, RECORD “1”) 
   ____________ miles (no decimals)

39. And how do you get from home to this location?

   1. N/A
   2. N/A
   3. Drive alone
   4. Motorcycle
   5. Carpool, including carpool with family member, dropped off
   6. Casual carpool (slugging)
   7. Vanpool
   8. Buspool
   9. Bus
  10. Metrorail
  11. MARC
  12. VRE
  13. AMTRAK, other train
  14. Bicycle
  15. Walk
  16. N/A
  17. N/A
  18. N/A
  19. Taxi
  99. DK/Ref
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) ______________________________
19. DK/Ref

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

Did you receive any information about telecommuting from Commuter Connections or from the Telework Resource Center at the Council of Governments?

1. yes
2. no

AVAILABILITY OF TRANSPORTATION OPTIONS

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

Regardless of whether or not you use them, what train or bus companies provide service in the area where you live? (DO NOT READ; PROBE WELL FOR BOTH BUS AND TRAIN; ACCEPT MULTIPLE RESPONSES FOR 2-13 AND FOR 15-20)

**Buses**
1. No buses provide service (DO NOT ALLOW MULTIPLES WITH 2-13)
2. Alexandria DASH
3. Fairfax Connector
4. Fairfax Cue
5. Loudoun Commuter Bus
6. Metrobus
7. MTA bus
8. Omni Ride
9. Ride On
11. TransIT Bus
12. ART, Arlington Transit
13. Bus (PROBE FOR NAME) __________

**Train**
14. No trains provide service (DO NOT ALLOW MULTIPLES WITH 15-19)
15. AMTRAK/ACELA
16. MARC (Maryland commuter rail)
17. MetroRail/subway
18. Virginia Railway Express (VRE)
19. Train (PROBE FOR NAME) __________
20. Other (SPECIFY) ______________
19. DK/Ref

99. Don’t know/Refused
2010 State of the Commute Survey Results – Arlington County, VA

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 What train or bus companies provide service in the area where you work?  (DO NOT READ; PROBE FOR BOTH BUS AND TRAIN, ALLOW MULTIPLE RESPONSES FOR 2-13 AND FOR 15-20)

Buses
1   No buses provide service (DO NOT ALLOW MULTIPLES WITH 2-13)
2   Alexandria DASH
3   Fairfax Connector
4   Fairfax Cue
5   Loudoun Commuter Bus
6   Metrobus
7   MTA bus
8   Omni Ride
9   Ride On
10  “The Bus”
11  TransIT Bus
12  ART, Arlington Transit
13  Other Bus (PROBE FOR NAME) ______

Trains
14  No trains provide service (DO NOT ALLOW MULTIPLES WITH 15-19)
15  AMTRAK/ACELA
16  MARC (Maryland commuter rail)
17  MetroRail/subway
18  Virginia Railway Express (VRE)
19  Other Train (PROBE FOR NAME) ______
20  Other (SPECIFY)
99  Don’t know/Refused

Q46. Is there a special HOV (High Occupancy Vehicle) lane that can be used only by carpools, vanpools and buses along your route to work?
1   Yes
2   No  (SKIP TO INSTRUCTIONS BEFORE Q51a)
9   Refuse/Don’t know (SKIP TO INSTRUCTIONS BEFORE Q51a)

IF Q15 = 15 ANY DAY, AUTOCODE Q47 = 3, THEN SKIP TO Q51a

47 Do you ever use the HOV lane to get to or from work?
1   Yes
2   No  (SKIP TO INSTRUCTIONS BEFORE Q51a)
3   No, not asked – walk to work
9   Refused/Don’t know (SKIP TO INSTRUCTIONS BEFORE Q51a)

50 How much time does the HOV lane save you in your one-way trip to or from work?
___________ minutes
999 DK/Ref.
51 Did the HOV lane influence your decision to use your current way of commuting?
   1   Yes
   2   No
   9   Refused/Don't know

IF Q15 = 5, 6, OR 7, ANY DAY, SKIP TO Q51b

Q51a Several jurisdictions in the Washington region are building or considering building toll roads. If you could use one of these roads for your trip to work and carpools and vanpools traveled for free or for a reduced toll, how likely would you be to start carpooling or vanpooling to use these roads? Would you be... very likely, somewhat likely, or not likely?
   1   Very likely
   2   Somewhat likely
   3   Not likely
   9   DK/Ref.

SKIP TO Q52

Q51b Several jurisdictions in the Washington region are building or considering building toll roads. If you could use one of these roads for your trip to work and carpools and vanpools that registered with a regional commute organization could use these roads for free or for a reduced toll, how likely would you be to register your carpool or vanpool?
   1   Very likely
   2   Somewhat likely
   3   Not likely
   9   DK/Ref.

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 = 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 OR Q29 = 1, 4, 8, OR 9, SKIP TO Q56f
If Q23 = 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 AND Q24 = 999 (still using), SKIP TO Q56f
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
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

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
Now I have a few questions about benefits of traveling by carpool, vanpool, bus, or train. What personal benefits do you think people receive from using these types of transportation? (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

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

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

Not at all satisfied | Very satisfied | (Don’t Know)
Scale: 1 2 3 4 5

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

1. easier (ASK Q58)
2. more difficult (ASK Q59)
3. about the same (SKIP TO Q60)
4. not applicable (SKIP TO Q60)
9. DK/Ref (SKIP TO Q60)
58  In what way is it easier?

1  shorter distance
2  trip is faster, takes less time
3  route is less congested
4  started carpooling/vanpooling to work
5  started using bus, train to work
6  started driving alone to work
7  less stressful
8  bought a hybrid or compressed natural gas (CNG) vehicle
9  started using HOV lanes
10  gas prices are lower, gas costs less
11  other ________
19  Refused/Don't know

59  In what way is it more difficult?

1  longer distance
2  trip is slower, takes more time
3  more congested
4  started carpooling/vanpooling to work
5  started using bus, train to work
6  started driving alone to work
7  more stressful
8  construction on route to work
9  trains, buses, metro more crowded
10  gas prices are higher, costs more
11  other ________________________________
19  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)*

<table>
<thead>
<tr>
<th>Commute Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Length, ease of commute</td>
</tr>
<tr>
<td>2  Cost of commuting</td>
</tr>
<tr>
<td>3  Commuting options that would be available (e.g., transit)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Residential Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>4  Quality of schools, stay in same school system</td>
</tr>
<tr>
<td>5  Cost of house</td>
</tr>
<tr>
<td>6  Cost of living</td>
</tr>
<tr>
<td>7  Size of house</td>
</tr>
<tr>
<td>8  Quality of neighborhood</td>
</tr>
<tr>
<td>9  Closeness to family or friends</td>
</tr>
<tr>
<td>10 Entertainment, shopping, services nearby</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Job Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 Income, salary</td>
</tr>
<tr>
<td>12 Job satisfaction</td>
</tr>
<tr>
<td>13 Career advancement</td>
</tr>
<tr>
<td>14 Job opportunities for spouse</td>
</tr>
</tbody>
</table>

| 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?

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Less important</td>
</tr>
<tr>
<td>2  More important</td>
</tr>
<tr>
<td>3  About the same importance</td>
</tr>
<tr>
<td>9  DK/Refused</td>
</tr>
</tbody>
</table>

**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?

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Yes</td>
</tr>
<tr>
<td>2  No</td>
</tr>
<tr>
<td>9  DK/Refused</td>
</tr>
</tbody>
</table>

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?

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Yes</td>
</tr>
<tr>
<td>2  No</td>
</tr>
<tr>
<td>9  DK/Refused</td>
</tr>
</tbody>
</table>

**AWARENESS OF ADVERTISING**

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

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1  yes</td>
</tr>
<tr>
<td>2  no <em>(SKIP TO Q81)</em></td>
</tr>
<tr>
<td>9  DK/Ref (SKIP TO Q81)</td>
</tr>
</tbody>
</table>
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) (NOT ACCEPTABLE ANSWER; 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, Metrocheck 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. Telework Center / telecommuting
18. HOV lanes
19. regional services/programs are available to help with commute
20. use the bus or train, use Metrobus
21. Way to Go, Way to Go Arlington
22. Virginia MegaProjects, Dulles rail extension
23. HOT lanes
24. Inter-County Connector (ICC)
25. other (SPECIFY)

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. Maryland Department of the Environment
13. WABA, Washington Area Bicycling Association
14. Arlington County Commuter Services
15. 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 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 (SKIP TO Q81)
9 DK/Ref (SKIP TO Q81)
66. After seeing or hearing this advertising, did you take any actions to try to change how you commute?
  IF YES, ASK “What actions did you take?” (DO NOT READ)

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 telecommuting opportunities
8. asked employer about SmartTrip SmartBenefit, Metrochek
9. looked for information about guaranteed ride home (GRH) program
10. looked for information about HOV lanes

Started participating in commute service/program
11. registered for guaranteed ride home (GRH) program
12. purchased alternative fuel vehicle (e.g., electric car, hybrid car, CNG-fueled vehicle)
13. started using HOV lane to get to work

Changed personal situation, work schedule, or commute route
14. moved my home or job location, changed jobs
15. started going to work earlier or later
16. changed or reduced number of days I work
17. changed route to work

Tried another way of getting to work, started using another form of transportation
18. tried or started driving alone to work
19. tried or started carpooling to work
20. tried or started vanpooling to work
21. tried or started using bus to get to work
22. tried or started using train to get to work
23. tried or started bicycling or walking to work
24. tried or started telecommuting/teleworking

Other
25. other action (specify____________) (SKIP TO Q81)

99. DK/Ref (SKIP TO Q81)

68. Did the advertising you saw or heard encourage you to take this action?
1. yes
2. no
9. DK/Ref
2010 State of the Commute Survey Results – Arlington County, VA

IF Q66 = 2, 3, 4, 5, 6, 7, 8, 9, OR 10, AND Q66 NE 19, 20, 21, 22, 23, OR 24 ASK Q70, OTHERWISE, SKIP TO Q71

70 How likely is it that you will try another type of transportation for your commute to work, other than driving alone, taxi, or motorcycle, within the next year? Would you say it is … (READ RESPONSES 1-3. DO NOT READ RESPONSE 9)

1 very likely
2 somewhat likely
3 not likely
9 DK/Ref

Collect info on mode/modes used before trying/starting new alt mode – skip out respondents who did not try alt mode and respondents who answered this question in Q19

IF Q66 NE 19, 20, 21, 22, 23, OR 24, SKIP TO Q81

Autofill mode duration for respondents currently using alternative mode (Q15) named in Q66
IF Q66 EQ 19 AND Q15 = 5 OR 6, AUTOFILL Q71 = “still using,” THEN SKIP TO Q72a
IF Q66 EQ 20 AND Q15 = 7, AUTOFILL Q71 = “still using,” THEN SKIP TO Q72a
IF Q66 EQ 21 AND Q15 = 8 OR 9, AUTOFILL Q71 = “still using,” THEN SKIP TO Q72a
IF Q66 EQ 22 AND Q15 = 10, 11, 12, 13, AUTOFILL Q71 = “still using,” THEN SKIP TO Q72a
IF Q66 EQ 23 AND Q15 = 14,15, AUTOFILL Q71 = “still using,” THEN SKIP TO Q72a
IF Q66 EQ 24 AND Q15 = 2, AUTOFILL Q71 = “still using,” THEN SKIP TO Q72a

Autofill duration for respondents who tried alt mode named in Q66 in past two years (Q23)
IF Q66 = 19 AND Q23 = 5 OR 6, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72a
IF Q66 = 20 AND Q23 = 7, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72a
IF Q66 = 21 AND Q23 = 8 OR 9, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72a
IF Q66 = 22 AND Q23 = 10, 11, 12, OR 13, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72a
IF Q66 = 23 AND Q23 = 14 OR 15, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72a
IF Q66 = 24 AND Q23 = 2, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72a

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

_______ months (CONVERT YEARS TO MONTHS)
_______ less than one month
_______ 991 occasionally (tried one, emergency use) (SKIP TO Q81)
_______ 999 still using
999 DK/Ref.

IF Q66 = 19, 20, 21, 22, 23, 24 (MORE THAN ONE OF THESE), THEN CHOOSE ALT MODE USED LONGEST TIME FOR Q72a. IF MORE THAN ONE ALT MODE USED SAME AMOUNT OF TIME, CHOOSE BOTH MODES.

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

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

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

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

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

<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</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, and telecommuting in the Washington region?

1 Yes
2 No (SKIP TO Q86)
9 DK/Ref (SKIP TO Q86)
<table>
<thead>
<tr>
<th>Question Number</th>
<th>Question Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>83</td>
<td>What is it? (DON'T READ, ACCEPT MULTIPLES)</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>800-745-RIIDE (7433) Commuter Connections (COG)</td>
</tr>
<tr>
<td>2.</td>
<td>888-730-6664 PRTC, Potomac Rappahannock Transportation</td>
</tr>
<tr>
<td>3.</td>
<td>703-324-1111 Fairfax County RideSources</td>
</tr>
<tr>
<td>4.</td>
<td>301-770-POOL Montgomery County Commuter Services</td>
</tr>
<tr>
<td>5.</td>
<td>240-777-RIIDE Montgomery County Commuter Services</td>
</tr>
<tr>
<td>6.</td>
<td>202-637-7000 WMATA, METRO (Washington Metro. Area Transit Authority)</td>
</tr>
<tr>
<td>7.</td>
<td><a href="http://www.mwcog.org">www.mwcog.org</a> Commuter Connections (COG)</td>
</tr>
<tr>
<td>8.</td>
<td><a href="http://www.commuterconnections.org">www.commuterconnections.org</a> Commuter Connections (COG)</td>
</tr>
<tr>
<td>9.</td>
<td><a href="http://www.commuterconnections.com">www.commuterconnections.com</a> Commuter Connections (COG)</td>
</tr>
<tr>
<td>10.</td>
<td><a href="http://www.vre.org">www.vre.org</a> Virginia Railway Express (VRE)</td>
</tr>
<tr>
<td>11.</td>
<td><a href="http://www.commuterdirect.com">www.commuterdirect.com</a> Arlington County Commuter Services</td>
</tr>
<tr>
<td>12.</td>
<td><a href="http://www.commuterpage.com">www.commuterpage.com</a> Arlington County Commuter Services</td>
</tr>
<tr>
<td>13.</td>
<td>703-228-RIIDE Arlington County Commuter Services</td>
</tr>
<tr>
<td>15.</td>
<td><a href="http://www.maryland.com">www.maryland.com</a> Maryland Mass Transit Admin. (MTA) MARC Commuter Rail</td>
</tr>
<tr>
<td>16.</td>
<td><a href="http://www.wmata.com">www.wmata.com</a> WMATA, Metro</td>
</tr>
<tr>
<td>17.</td>
<td><a href="http://www.HOVcalculator.com">www.HOVcalculator.com</a> VDOT</td>
</tr>
<tr>
<td>18.</td>
<td><a href="http://www.commuterchoicemaryland.com">www.commuterchoicemaryland.com</a> Maryland Mass Transit Admin (MTA)</td>
</tr>
<tr>
<td>19.</td>
<td>866-RIIDE-MTA (1-800-743-3682) Maryland Mass Transit Admin (MTA)</td>
</tr>
<tr>
<td>20.</td>
<td><a href="http://www.metroopensdoors.org">www.metroopensdoors.org</a> WMATA, Metro</td>
</tr>
<tr>
<td>21.</td>
<td>Other (SPECIFY) _____________________________________________________</td>
</tr>
</tbody>
</table>

**IF Q83 = ONLY 2, 3, 4, 5, 10, 11, 12, 13, 14, 15, 17, 18, 19, ASK Q84, INSERTING “this”**

**IF Q83 = 1, 7, 8 OR 9, Ask Q84, INSERTING “this Commuter Connections”**

**IF Q83 = 6, 16, 20, ASK Q84, INSERTING “this Metro”**

**IF Q83 = 1, 6, 7, 8, 9, 16, 20 AND ANY OTHER RESPONSE, ASK Q84, INSERTING “this other”**

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Question Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>84</td>
<td>Have you used [this, this Commuter Connections, this Metro, this other] number or website in the past year? (CHECK FOR ALL RESPONSES IN Q83)</td>
</tr>
</tbody>
</table>

<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</td>
</tr>
<tr>
<td>8.</td>
<td>Don’t know</td>
</tr>
<tr>
<td>9.</td>
<td>Refuse</td>
</tr>
</tbody>
</table>

**DELETED Q85 – combined with Q87**

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Question Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>86</td>
<td>Have you heard of an organization in the Washington region called Commuter Connections?</td>
</tr>
</tbody>
</table>

<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 Q88c)</td>
</tr>
<tr>
<td>8.</td>
<td>Don’t know (SKIP TO Q88c)</td>
</tr>
<tr>
<td>9.</td>
<td>Refuse (SKIP TO Q88c)</td>
</tr>
</tbody>
</table>
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 Other ________________
88 Don’t know
99 Refuse

88 What services does Commuter Connections provide? (DO NOT READ, ACCEPT MULTIPLE RESPONSES)

1 guaranteed ride home
2 rideshare (carpool/vanpool) information
3 help finding carpool/vanpool partners, matchlists
4 transit schedule/route information
5 HOV lane information
6 park & ride lot information, parking information
7 telecommute information
8 bicycle/walking information
9 road construction information
10 kiosks, InfoExpress
11 SmartTrip/SmartBenefit, Metrochek
12 other (specify)__________________________
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 Q88b.
IF Q20 = 38 OR 39, AUTOCODE Q88a = 1, THEN SKIP TO Q88b
IF Q26 = 38 OR 39, AUTOCODE Q88a = 1, THEN SKIP TO Q88b
IF Q42 = 4 OR 7, AUTOCODE Q88a = 1, THEN SKIP TO Q88b
IF Q43 = 1, AUTOCODE Q88a = 1, THEN SKIP TO Q88b
IF Q64 = 1, AUTOCODE Q88a = 1, THEN SKIP TO Q88b

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

1 Yes
2 No (SKIP TO Q88c)
8 Don’t know (SKIP TO Q88c)
9 Refuse (SKIP TO Q88c)
88b IF Q88a WAS AUTO CODED = 1, START Q88b WITH: "When you contacted Commuter Connections or visited its website,"

What information or services were you seeking? (DO NOT READ, ACCEPT MULTIPLE RESPONSES)

1. transit schedule/route information
2. carpool, vanpool (rideshare) information
3. help finding carpool/vanpool partners, matchlists
4. guaranteed ride home
5. Ozone alerts
6. park & ride lot information, parking information
7. telecommute, telework information
8. bicycle, walking information
9. road construction information
10. SmarTrip/SmartBenefit, Metrochek
11. travel directions, driving directions
12. other (specify) ________________________
88. don’t know
99. Refuse

Define Local Program for Q88c - Q88f

88c SET ORGANIZATIONS TO ASK ABOUT IN Q88c-Q88f (DO NOT READ)

IF Q2 = 1 OR Q3 = 1 (Alexandria), INSERT Alexandria LocalMotion as <PROGRAM> in Q88c - Q88f
IF Q2 = 2 OR Q3 = 3 (Arlington), INSERT Arlington County Commuter Services or The Commuter Store as <PROGRAM> in Q88c - Q88f
IF Q2 = 3 OR Q3 = 4 (Calvert), INSERT Tri-County Council for Southern Maryland as <PROGRAM> in Q88c - Q88f
IF Q2 = 4 OR Q3 = 5 (Charles), INSERT Tri-County Council for Southern Maryland as <PROGRAM> in Q88c - Q88f
IF Q2 = 6 OR Q3 = 7, 8, OR 9 (Fairfax Co, Ffx City, Falls Church), INSERT Fairfax County RideSources as <PROGRAM> in Q88c - Q88f
IF Q2 = 7 OR Q3 = 10 (Frederick), INSERT TransIT Services of Frederick County as <PROGRAM> in Q88c - Q88f
IF Q2 = 8 OR Q3 = 12 (Loudoun), INSERT Loudoun County Office of Transportation Services as <PROGRAM> in Q88c - Q88f
IF Q2 = 9 OR Q3 = 15 (Montgomery), INSERT Montgomery County Commuter Services, Bethesda Transportation Solutions, or North Bethesda Transportation Center as <PROGRAM> in Q88c - Q88f
IF Q2 = 10 OR Q3 = 16 (Prince Georges), INSERT Ride Smart as <PROGRAM> in Q88c - Q88f
IF Q2 = 11 OR Q3 = 13, 14, OR 17 (Prince William, Manassas, Manassas Park), INSERT PRTC OmniMatch as <PROGRAM> in Q88c - Q88f

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)
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)

88 Don't know (SKIP TO INSTRUCTIONS BEFORE Q89)
99 Refuse (SKIP TO INSTRUCTIONS BEFORE Q89)

ASK Q88e FOR ANY RESPONSE CODED YES IN Q88d

88e Have you contacted <Q88d PROGRAM OR SERVICE> in the past year or visited a website sponsored by this organization?

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)

88 Don't know (SKIP TO INSTRUCTIONS BEFORE Q89)
99 Refuse (SKIP TO INSTRUCTIONS BEFORE Q89)

IF ONE OR MORE <Q88e PROGRAM OR SERVICE> CODED YES IN Q88e, ASK Q88f, DO NOT ASK ABOUT EACH PROGRAM INDIVIDUALLY

88f What information or services were you seeking? (DO NOT READ, ACCEPT MULTIPLE RESPONSES)

1 transit schedule/route information
2 carpool, vanpool (rideshare) information
3 help finding carpool/vanpool partners, matchlists
4 guaranteed ride home
5 Ozone alerts
6 park & ride lot information, parking information
7 telecommute, telework information
8 bicycle, walking information
9 road construction information
10 SmarTrip/ SmartBenefit, Metrocheck
11 travel directions, driving directions
12 other (specify) ______________________

88 don't know
99 Refuse
EMPLOYER SERVICES

IF HOMEALL SKIP TO Q105
IF TEILEALL SKIP TO Q105

89 Next please tell me if your employer makes any of the following commute services or benefits available to you and, if they are available, have you used them. How about…..?, ASK ABOUT EACH SERVICE. IF NECESSARY, ASK “Does your employer make it available? IF AVAILABLE AND RESPONDENT DOES NOT INDICATE USE, ASK “Have you used this service?”

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 and Used</th>
<th>2 - Available, 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>
<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>
<td></td>
</tr>
<tr>
<td>3 SmarTrip/ SmartBenefit, Metrochek, or other subsidies for public transportation or vanpooling</td>
<td></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>
<td></td>
</tr>
<tr>
<td>5 Facilities or programs for employees who bike or walk to work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Guaranteed rides (GRH) home in case of emergencies or unscheduled overtime</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

90a Have you used this free parking?

1 yes
2 no
9 DK/Ref

SKIP TO Q102

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

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

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

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

92a Have you used this parking discount?

1 yes
2 no
9 DK/Ref
GUARANTEED RIDE HOME

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

1  yes, there is
2  no, there isn’t (SKIP TO Q105)
9  DK/Ref (SKIP TO Q105)

IF Q89, RESPONSE 6 (GRH) = 1 (AVAILABLE AND USED), CODE Q103 = 1, CODE Q104 = 2, THEN SKIP TO Q105

103  In the past two years, have you registered for or used any guaranteed Ride Home service?

1  Yes
2  No (SKIP TO Q105)
9  DK/Ref (SKIP TO Q105)

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

DELETED Q104f

QUALITY OF LIFE AND SATISFACTION WITH TRANSPORTATION

105  Next, I have a few questions regarding quality of life and transportation in the Washington region. Overall, how would you rate the quality of life in the Washington region? Please use a scale of 1 to 5 where “1” means poor and “5” means excellent.

IF RESPONDENT ASKS WHAT QUALITY OF LIFE MEANS, ADD: “Quality of life” means “the general well-being of residents taking into consideration such things as employment opportunities, the economy, personal safety, housing, educational and entertainment opportunities, and so forth.”

<table>
<thead>
<tr>
<th>Poor</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Excellent</th>
<th>5</th>
<th>9</th>
<th>(Don’t Know)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Not at all satisfied</th>
<th>Very satisfied</th>
<th>(Don’t Know)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale: 1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
107 How satisfied are you with the level of attention being paid to transportation needs by federal elected officials? Please use a scale of 1 to 5 where “1” means not satisfied at all and “5” means very satisfied. How about State level elected officials? And County or City level?

<table>
<thead>
<tr>
<th>Not at all satisfied</th>
<th>Very satisfied</th>
<th>(Don’t Know)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale: 1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Federal level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 State level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 County / city level</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

107a How well do you think the operation of the regional transportation system is managed? Please use a scale of 1 to 5 where “1” means very poorly managed and “5” means very well managed?

<table>
<thead>
<tr>
<th>Very poorly managed</th>
<th>Very well managed</th>
<th>(Don’t Know)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale: 1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

108 Do you have any recommendations for how the transportation system in the region needs to be improved? DO NOT READ (ALLOW UP TO THREE RESPONSES)

1 No improvements needed
2 Reduce traffic, congestion
3 More roads
4 More bus/train service, more transit
5 Expand Metrorail to more locations
6 Transit / Metrorail / buses too crowded
7 More bicycle lanes/paths
8 More parking at Metro stations
9 More parking – other locations
10 More HOV lanes
11 Eliminate HOV lanes – open HOV lanes to everyone
12 Expand the hours for HOV lanes
13 Build more toll facilities, convert existing roads to toll roads
14 Reduce transit fares, Bus or Metrorail fares too high
15 Reduce parking fees, parking fees too high
16 Reduce fees on current or planned toll roads
17 Improve Metrorail safety
18 Improve bus safety
19 Clearer / bigger road signs
20 Roads need repair
21 Other _______________________
99 Don’t know

109 I’m going to read you several possible ways the Washington region could spend its current transportation dollars. For each, tell me if you think the region should allocate more, less, or about the same amount of money on this item as it does now?

<table>
<thead>
<tr>
<th>Rotate and Read</th>
<th>Allocate More</th>
<th>Allocate Less</th>
<th>About Right</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Road maintenance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Maintenance for public transit, including Metro</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Road expansion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Expansion of public transit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Expansion of pedestrian and bicycle facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Programs to support use of carpools, vanpools, and public transit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Finally, I'll read several possible ways to increase transportation funding for the region. Please rate your support for each using a scale of 1 to 5, where 1 means you "strongly oppose" it and 5 means you "strongly support" it as a way to increase transportation funding. How much do you support …

<table>
<thead>
<tr>
<th>Strongly oppose</th>
<th>Strongly support</th>
<th>(Don't Know)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale: 1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1. Increasing gas taxes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Automatically adjusting gas taxes based on inflation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Increasing transit fares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Instituting tolls to build new roads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Instituting tolls on existing roads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Increasing vehicle registration fees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Increasing vehicle sales taxes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Replacing the gas tax with a per mile charge on vehicle miles driven</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Increasing income taxes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Increasing property taxes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Increasing sales taxes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 (SKIP TO INSTRUCTIONS BEFORE Q118)
99 Refuse (SKIP TO INSTRUCTIONS BEFORE Q118)

IF Q114 = 1, AUTOCODE Q114a = 0, THEN SKIP TO INSTRUCTIONS BEFORE Q118

114a And how many of these household members are under the age of 16? 

________ household members

888 Don’t know
999 Refuse

DELETED Q115 - Q116

Instructions before Q118
IF TELEALL OR HOMEALL SKIP TO Q119

118 About how many employees work at your worksite? Is it . . . (READ CHOICES)

1 1 – 25
2 26-50
3 51-100
4 101-250
5 251-999
6 1,000 or more
9 DK/Ref.

119 What is your occupation? __________________________________________
IF HOMEALL, AUTOCODE Q120 = 5, AUTOCODE Q120a = Q1a, THEN SKIP TO Q121

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? ________________________________

121 Which of the following groups includes your age? (READ CHOICES)

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

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

1 Yes
2 No
9 DK/Ref.

123 Now I want to ask you about your race. Which one of the following best describes your racial background. Is it . . . (READ CHOICES 1-5; SELECT ONE 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

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 Q125)

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
2 $20,000 - $29,999
3 $30,000 - $39,999
4 $40,000 - $59,999
5 $60,000 - $79,999
6 $80,000 - $99,999
9 Refused (DON'T READ)

SKIP TO Q125
Please stop me when I reach the category that best represents your household’s total annual income. Is it:

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 or more
9. Refused (DON'T READ)

Thank you very much for your time and cooperation!

Q125 (RECORD SEX:) 1 male 2 female
(RECORD LANGUAGE OF INTERVIEW:) 1 English 2 Spanish