ITEM #5

COMMUTER CONNECTIONS MINI-HOUSEHOLD SURVEY 2005

Survey Report

Draft

Prepared for:

Metropolitan Washington Council of Governments

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SECTION 1 – INTRODUCTION

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

COG has a strong interest in evaluating the effectiveness of its commuter services programs. In 1997 Commuter Connections established an evaluation framework that outlines a methodology and data collection activities to evaluate several of its commuter programs. This framework was updated and revised in March 2001 and again in March 2004, to include several enhancements.[2] A major addition to the 2001 framework was the State of the Commute (SOC) survey, a random sample survey of employed persons in the 12-jurisdiction Washington metropolitan region.

The SOC survey documents trends in commuting behavior, such as commute mode shares and distance traveled, and prevalent attitudes about specific transportation services, such as public transportation, that are available to commuters in the region. It also collects data to help estimate impacts of some TERMs, such as the Telework Resource Center (TRC) and Mass Marketing, two TERMs that might influence the population-at-large as well as commuters who directly participate in the TERMs. The survey also queries commuters about sources of information on alternative modes and their reasons for choosing alternative modes for commuting, to help Commuter Connections identify marketing efforts that might influence commuting behavior in the region.

The SOC Survey, which is conducted triennially, was last conducted in 2004. But to assist in the 2002-2005 TERM Evaluation, a shortened form of the survey was fielded, as the "Mini-Household" Survey. The survey retained questions on commute patterns, telecommute experience, commuters' awareness of commute advertising and services, and respondent demographics. Other sections of the questionnaire were eliminated to shorten the interview time. The sample size also was reduced from the 7,200 of the SOC survey to 2,163 completed interviews.

This report documents the 2005 Mini-Household Survey. It summarizes the survey methodology, presents key results, and offers conclusions about regional commute travel based on the results. The report is divided into three sections following this introduction:

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

[1] Commuter Connections is funded through the District Department of Transportation, the Maryland Department of Transportation, and the Virginia Department of Transportation, with state and federal funds.

[2] For more information on the evaluation framework in effect at the time of this survey, readers may refer to *Transportation Emissions Reduction Measures (TERMs) Revised Evaluation Framework – July 2002 – June 2005*, available from COG.

Following these four main sections are four appendices dealing with survey procedures. They include: Appendix A – Survey data expansion, Appendix B – Final dialing disposition, Appendix C – Mini-Household Survey instruments, and Appendix D – Interviewer Instructions and Terms. Finally, one additional appendix is included. Appendix E, presents a comparison of Mini-Household Survey results with results of the 2004 SOC and 2001 SOC surveys.

SECTION 2 – SURVEY AND SAMPLING METHODOLOGY

OVERVIEW

The geographic scope of the survey encompasses the 12 counties and four independent cities 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 2005 study. A total of at least 180 random telephone surveys were conducted in each of the 12 jurisdictions of the study area, resulting in 2,163 completed surveys.

Using GENESYS, CIC's random digit dialing sampling system, household records were randomly drawn by county and where prefixes overlapped counties, by ZIP code, from all working prefixes. A detailed list of dialing results can be found in Appendix B.

QUESTIONNAIRE DESIGN

The Mini-Household questionnaire was developed, using the 2004 SOC survey as a base. Questions retained from this survey included current commute, duration of mode use, past mode usage for alternative mode users, telecommuters, advertising awareness, program awareness, and demographics. The goal of the redesigned questionnaire was to keep pertinent commuter measures while reducing the overall number of questions to meet the goals of the project budget. LDA Consulting, CIC Research, and COG modified the survey, with input from a TDM Evaluation Advisory Panel comprised of representatives from COG staff and the District of Columbia, Maryland, and Virginia.

Before the full survey was conducted, CIC completed a pretest of the questionnaire. Using the responses to these surveys, the questionnaire was finalized with COG Project staff 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 questionnaire is available upon request.

SURVEY ADMINISTRATION

The telephone survey was conducted in CIC's telephone survey facilities. Surveys were conducted using the CATI system and Quantime software. Before beginning the full survey effort, CIC conducted interviewer-training sessions. Issues discussed in the session included:

- Explanation of the purpose of the study
- Identification of the group to be sampled
- Overview of COG and its function
- Verbatim reading of the questionnaire
- Review of the definition and instruction sheet to familiarize interviewers with the terminology
- Paper/computer review of skip-patterns to familiarize interviewers with questionnaire flow
- Practice session on CATI systems in full operational mode

Interviews were conducted between January 10 and February 28, 2005. Calls were made to the respondent's home number. All weekday calls were made from 5:30 pm to 8:30 pm local time and all weekend calls from 10:00 am to 6:30 pm local time. CIC interviewers conducted a minimum of four call-back attempts over different days throughout the data collection period. CIC adopted measures to assure confidentiality of responses. When the call was answered by an answering machine, the interviewer left a message asking the person to call back on a 1-800 number. Bilingual interviewers surveyed all Spanish-speaking respondents using the Spanish questionnaire. A total of 84 surveys (3.9%) 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 insure quality control, the survey supervisor conducted periodic random monitoring.

A total of 180 interviews were completed in each of the 12 counties (an additional two surveys were completed in Fairfax County, and an additional one survey in Montgomery County), resulting in a total sample size of 2,163 completed surveys. The refusal rate for the survey was 16.7 percent[3]. An average of 34.9 call attempts was made for each completed interview.

SURVEY DATA EXPANSION

Survey responses were expanded numerically to align the sampled survey results with published, employment information for the study area. The process developed for the 12-area, Washington, DC metropolitan region is detailed in Appendix A. The Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics (LAUS) were utilized to provide an acceptable, straightforward approach to estimating the number of workers by jurisdiction. The 2000 U.S. Census statistics were used to proportionally adjust survey bias for the distribution of race/ethnicity in Washington, DC.

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

SECTION 3 – SURVEY RESULTS

This section of the report presents the key findings of the survey. To align the sampled survey results with published numbers for the study area, the data were weighted to represent the number of employed people in the metropolitan region. The expansion methodology, described in Appendix A, allows the proper representation of employees in each of the 12 jurisdictions included in the survey area. Percentages presented in the results tables and figures show percentages weighted to the total working population, but also show the raw number of respondents (e.g., n=__) who answered the question.

Where relevant, survey results are compared for sub-groups of respondents. A comparison of key results of the Mini-Household survey with results from the 2001 and 2004 SOC surveys also is presented in Appendix E.

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

- 3-A Characteristics of the sample
- 3-B Commute patterns
- 3-C Telecommuting
- 3-D Awareness of commute advertising and services
- 3-E Awareness of use of commuter assistance resources

3-A CHARACTERISTICS OF THE SAMPLE

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

Demographic Characteristics

Sex – Most respondents were female (52%). This was essentially the same percentage as in the 2004 SOC survey (55% female).

Age – As shown in Table 1, about three-quarters of respondents (76%) were between the ages of 25 and 54. About six percent were under 25 and about 17% were 55 years or older.

Table 1
Respondent Age
(n=2,082)

Age Group	Percentage	Age Group	Percentage
Under 18	<1%	45 – 54	27%
18 – 24	6%	55 – 64	14%
25 – 34	21%	Over 64	3%
35 – 44	30%		

Ethnic Background – As illustrated in Table 2, Caucasians and African-Americans represented the two largest ethnic groups of survey respondents, 62% and 22% respectively. Hispanic and Latino respondents accounted for about nine percent and Asians/Pacific Islanders represented five percent.

Table 2
Ethnic Background
(n=2,008)

Ethnic Group	Percentage	Ethnic Group	Percentage
White/Caucasian	62%	Asian	5%
African-American	22%	Other/Mixed	3%
Hispanic/Latino	9%		

Income – Table 3 shows that about one-half (56%) of respondents had household incomes of $80,000 or higher. Two in five (40%) had incomes of $100,000 or more. About one-third (36%) had household incomes between $30,000 and $79,999.

Table 3
Annual Household Income

(n=1,709)

Income	Percentage	Income	Percentage
Less than $20,000	4%	$80,000 – 99,999	15%
$20,000 – 29,999	5%	$100,000 – 119,999	13%
$30,000 – 39,999	7%	$120,000 – 139,000	9%
$40,000 – 59,999	14%	$140,000 – 159,000	5%
$60,000 – 79,999	15%	$160,000 or more	13%

Home and Work Locations – Table 4 presents the distribution of respondents by their home and work states and counties. About equal shares of respondents lived in Maryland (45%) and Virginia (44%). The remaining 11% 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.

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

Four jurisdictions accounted for residences of seven in ten respondents: Fairfax County (including Fairfax City and Falls Church) (22%), Montgomery County, MD (19%), Prince George's County, MD (17%), and the District of Columbia (11%). The same four jurisdictions also represented about three-quarters of the work locations, but in different proportions: District of Columbia (29%), Fairfax County (19%), Montgomery County (17%), and Prince George's County (10%).

Table 4
Home and Work Locations

State/County	Home Location* (n=2,163)	Work Location** (n=2,144)
District of Columbia	**11%**	**29%**
Maryland Counties	**45%**	**31%**
Montgomery Co.	19%	17%
Prince Georges Co.	17%	10%
Frederick Co.	5%	2%
Charles Co.	3%	1%
Calvert Co.	1%	1%
Virginia Counties	**44%**	**37%**
Fairfax Co.	22%	19%
Prince William Co.	7%	3%
Arlington Co.	5%	6%
Loudoun Co.	5%	4%
Alexandria City	3%	4%
Stafford Co.	2%	1%
Other***	**N/A**	**3%**

* 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 12-jurisdiction region. Maryland and Virginia locations outside this area are counted in the "other" category.

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

Employment Characteristics

Type and Size of Employer – Respondents were asked for what type of employer they worked and the number of employees at their worksites. These results are shown in Tables 5 and 6, respectively. Nearly half (48%) of the respondents worked for a private sector employer. Government agencies employed about one-third, with federal agencies employing 20% and state and local agencies employing 13%. About one in ten (9%) worked for a non-profit organization and the remaining eleven percent were self-employed.

Table 5
Employer Type
(n=2,101)

Employer Type	Percentage
Private sector	48%
Federal agency	20%
State/local agency	13%
Non-profit	9%
Self-employed	11%

The majority of respondents worked for employers that are either very small or very large. About half (52%) worked for firms with 100 or fewer employees. About one in five (21%) worked for employers that have at least 1,000 employees.

Table 6
Employer Size
(n=1,947)

Number of Employees	Percentage	Number of Employees	Percentage
1-25	28%	101-250	13%
26-50	12%	251-999	14%
51-100	12%	1,000+	21%

Occupations – Respondents represented many occupations, as shown in Table 7. About six in ten respondents worked in either professional (41%) or executive/managerial (21%) positions. Other common occupations included service (10%), sales (7%), administrative support (5%) and equipment handlers/cleaners/laborers (5%).

Table 7
Occupation
(n=1,923)

Occupation	Percentage	Occupation	Percentage
Professional	41%	Precision craft, production	4%
Executive/managerial	21%	Protective services	3%
Service	10%	Military	1%
Sales	7%	Technicians/support	1%
Administrative support	5%	Other*	2%
Equipment handlers/cleaners	5%		

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

3-B COMMUTE PATTERNS

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

- Number of days worked per week and work hours
- Commute mode(s) used and the frequency of use
- Use of alternative work schedules
- Alternative mode characteristics
- Length of time using current alternative modes
- Use of other alternative modes in the past
- Reasons for using current commute modes
- Commute distance

Number of Days Worked Per Week and Work Hours

Full-Time vs Part-Time – Nearly all (87%) respondents worked full-time, defined as 35 or more hours per week. The remaining 13% were employed part-time.

Work at Home – About six percent of the total survey respondents said they never commuted to a work location outside their homes. The majority of these respondents (5% of total respondents) said they were self-employed and had no other work location. The remaining one percent of total respondents said they telecommuted from home every day they worked. These two groups of respondents were not asked further questions about commute patterns, but were included in questions about awareness of commute advertising and demographics. Additionally, respondents who telecommuted full-time were asked questions about their telecommute experience.

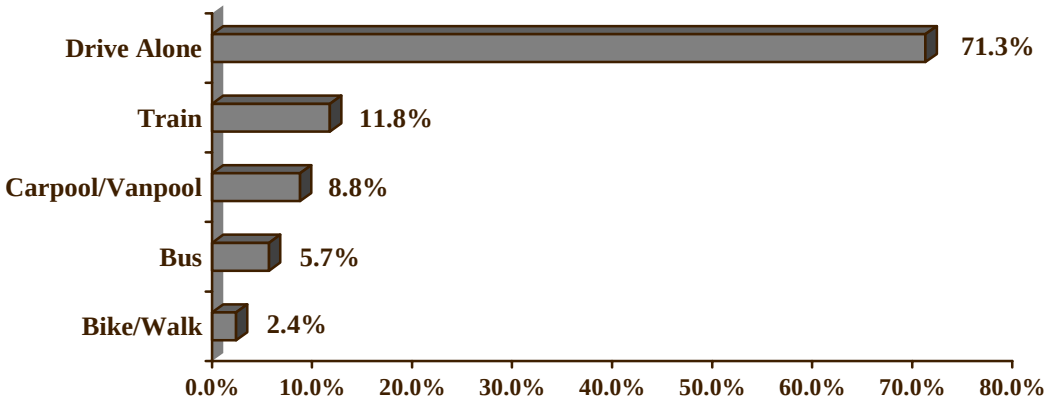
Current Commute Mode

Respondents were asked what modes they used to travel to work each weekday (Monday-Friday) during the survey week. If they were sick, on holiday or vacation, or otherwise absent from work one or more days during the week, respondents were asked to report how they likely would have traveled to work on those days. Figures 1 through 4 present several different views of modal distribution.

Weekly Trips by Mode – Figure 1 presents mode shares as a percentage of weekly commute trips made to job locations outside the home, that is, the mode split of traffic "on the road" on an average day. Five traditional mode groups are shown: drive alone, train (subway/commuter rail), carpool/vanpool, bus, and bike/walk. This figure includes only trips actually made to job locations outside the home.

Figure 1
Weekly Trips by Mode (Days Commuting to a Work Location)

(Excluding CWS and telecommute)
(n=2,029)



The majority of trips (71.3%) were made by commuters driving alone. But train, with 11.8% of trips, and carpool/vanpool, with 8.8% of weekly trips, accounted for one in five commute trips. Bus accounted for 5.7% of weekly trips and 2.4% of weekly trips were made by bicycle or walking.

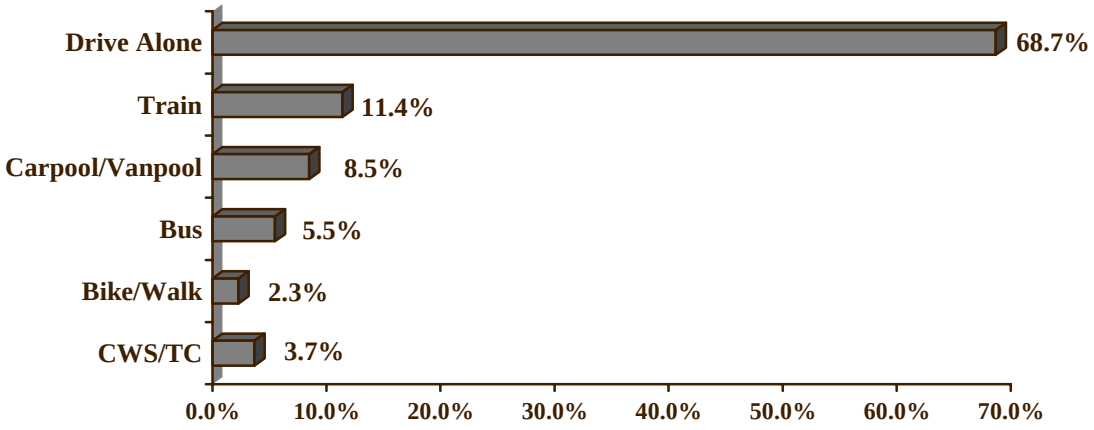
Weekly Trips by Mode Including Compressed Work Schedule and Telework – Figure 2 on the following page presents a second view of mode shares as a percentage of weekly commute trips, but includes one additional category to the five mode groups displayed in Figure 1: telecommuting/compressed work schedule. These are not actually travel modes, but this figure includes them to show the percentage of weekly work trips that were eliminated through use of these work schedule options.

As shown, when compressed work schedule days off and telecommute days are added in, the drive alone trips drop to 68.7% of weekly "trips." Trip percentages for other modes also drop, because CWS and telecommuting draw trips away from all modes, not just drive alone. The second most popular mode continues to be train, used for 11.4% of weekly trips. Respondents used carpool/vanpool for just under nine percent (8.5%) of weekly commute trips and bus for about six percent (5.4%). A small percentage (2.3%) of weekly trips were made by bike or walking.

Compressed work schedule days off and teleworking accounted for just under four percent (3.7%) of weekly work days. 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.

Figure 2
Current Commute Modes

Percentage of Weekly Trips
(n= 2,029)



Frequency of Current Mode Use – Figures 3 and 4 also show mode split, but as the percentage of respondents who used each mode. Figure 3 presents the percentages of respondents who used each mode as their "primary" mode, defined as the mode used three or more days per week. Figure 4 shows the percentages of respondents who used each mode one or more days per week, that is, as a primary or secondary mode.

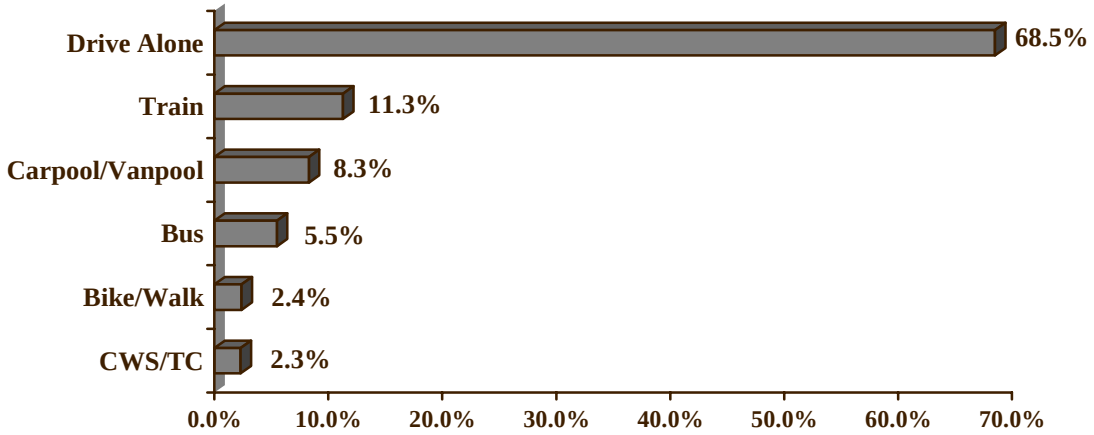
Primary Mode – As shown in Figure 3, nearly all (98%) respondents said they used a single mode three or more days per week. This also would include respondents who used a mode four or five days per week. The remaining two percent of respondents said they did not use any single mode three or more days per week. This could be because they used several modes in a typical week but used each mode fewer than three days, or because they worked fewer than three days per week.

As with mode split by weekly trips, the most common primary mode was drive alone, used by 68.5% of respondents. The second most common mode, used by 11.3% of respondents, was train. About eight percent (8.3%) said they carpooled, "casual" carpooled (slug), or vanpooled. Bus was the primary mode of over five percent of respondents (5.5%).

Two percent of respondents said they primarily biked or walked (2.4%) and another two percent (2.3%) said they telecommuted three or more days per week. Note that no respondents had three or more compressed work schedule days off, so all the respondents in the CWS/TC mode group were teleworkers.

Figure 3
Current Commute Modes

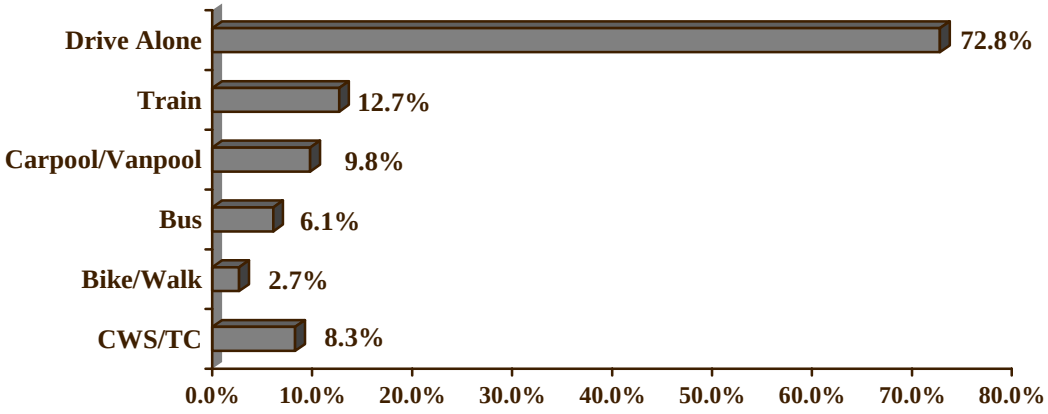
Modes Used Three+ Days Per Week
(n= 2,029)



Primary or Secondary Use of Modes – Figure 4 shows the percentage of respondents who used the modes at least one day during the survey week. This category also includes respondents who said they used these modes two, three, four, or five times during the week, in other words, used the modes either as a primary or secondary mode.

Figure 4
Current Commute Modes *

Modes Used One or More Days Per Week
(n=2,029)



* Percentages add to more than 100% because some respondents used more than one mode in a week

The relative use of modes did not change from the three or more days per week order. But the percentage using each mode increased, because some respondents counted in the three or more days per week category occasionally used a "secondary mode" in addition to their primary mode. Drive alone was still the most popular mode; 72.8% of respondents used this mode either as a primary or secondary mode. When compared to the 68.5% of respondents who said they primarily drove alone, this shows that about four percent of respondents were occasional drive alone commuters.

Train was the second most popular mode, used by 12.7% of respondents. Carpooling/vanpooling was the third most popular mode, used by almost ten percent (9.8%) of respondents one or more days per week. About one in twenty (6.1%) respondents rode a bus and 2.7% biked or walked. About one in twelve respondents (8.3%) said they either telecommuted one or more days or had one or more compressed work schedule days off during the survey week.

Mode Use within Mode Groups – Table 8, on the following page, shows use of individual modes within the six mode groups displayed in Figures 3 and 4.

Carpool/Vanpool – Among respondents who primarily carpooled or vanpooled (3+ days per week), regular carpooling dominated. More than 88% of regional carpool/vanpool use was in regular carpools (7.3% of total 8.3% carpool/vanpool use). Small proportions of carpoolers/vanpoolers used either casual carpool or vanpool.

Among all carpoolers/vanpoolers, that is, respondents who said they used carpool or vanpool one or more days per week, regular carpooling remained dominant, with 88% of these respondents choosing regular carpool (8.7% of 9.8% total carpool/vanpool). This shows that both primary and secondary ridersharers were more likely to use regular carpool than either casual carpool or vanpool.

Bus – Among both regular and all bus users, regular bus accounted for the vast majority of bus use. Only about 5% of bus ridership was in buspools (0.3% of total 5.5% bus use).

Train – The train mode group was comprised of Metrorail and three commuter rail companies: MARC (Maryland commuter rail), Virginia Railway Express (VRE), and Amtrak. Metrorail dominated this category for both primary and secondary train riders, with 95% of train riders using this mode (10.7% of total 11.3% primary train ridership and 12.0% of total 12.74% secondary train use). The balance of train ridership was in commuter rail, divided approximately evenly between MARC and VRE. No survey respondents reported using Amtrak.

Bike/Walk – In both the 1 or more days and 3 or more days per week categories, walking accounted for about three-quarters of the bike/walk mode group.

CWS/TC – Finally, about one in twelve respondents (8.3%) said they either telecommuted one or more days or had one or more compressed work schedule days off during the survey week. This was considerably higher than the 2.3% of respondents who said they used these modes three or more days per week, showing that they have higher part-time use than do more traditional commute modes. Telework dominated this category, accounting for 100% of the 3+ days group and 66% of 1+ days per week users. CWS use was evident only for the 1+ days group; 34% of respondents in this mode group said they had one or more compressed work schedule days off during the survey week.

Table 8
Individual Commute Modes by Days Used per Week

Mode Groups/Modes	Days Used Per Week		Mean Days
	1+ Days* (n=2,029)	3+ Days (n=2,029)	
Drive alone	**72.8%**	**68.5%**	4.6
Carpool/Vanpool	**9.8%**	**8.3%**	
- Regular carpool	8.7%	7.3%	4.3
- Casual carpool (slug)	0.8%	0.7%	4.6
- Vanpool	0.3%	0.3%	5.0
Bus	**6.1%**	**5.5%**	
- Ride a bus/shuttle	5.7%	5.2%	4.4
- Buspool	0.4%	0.3%	3.7
Train	**12.7%**	**11.3%**	
- Metrorail	12.0%	10.7%	4.3
- MARC (MD commuter rail)	0.3%	0.2%	3.7
- VRE	0.4%	0.4%	4.9
- AMTRAK/other train	0.0%	0.0%	N/A
Bike/Walk	**2.7%**	**2.4%**	
- Bike	0.6%	0.6%	4.0
- Walk	2.1%	1.8%	4.1
CWS/TC	**8.3%**	**2.3%**	
- Compressed work schedule	2.8%	0%	1.1
- Telecommute	5.5%	2.3%	2.6

* Percentage will add to MORE than 100%, because some respondents used more than one mode in a week

** Percentage will add to LESS than 100%, because not all respondents used a single mode three or more days per week

Mean Days Used – Table 8 also showed the average number of days each mode/mode group was used. All of the traditional commute modes, excluding telework and compressed schedules, were used at least three days per week on average. This is consistent with other results in the survey, which show that most respondents did use one mode most of the time for their commute. Two modes, buspool and MARC, were used fewer than 4.0 days on average, but these modes had small sample sizes.

Telework and compressed work schedules also showed low average use, compared to other modes. Telework was used an average of 2.6 days during the survey week and respondents who worked compressed schedules had an average of 1.1 days off per week. It should be noted that the average days per week for these two modes include only respondents who actually telecommuted or had a CWS day off during the survey week. Many more respondents said they telecommute infrequently, for example "occasionally for special projects." Additionally, some respondents said they worked a 9/80 CWS schedule and about half of these respondents would not have had a 9/80 day off during the survey week. These respondents were not included in the frequency base for this figure.

Primary Commute Mode by Demographic Group – Analysis of survey data showed some differences in choice of primary mode (mode used 3+ days per week) among various demographic groups. Tables 10 through 15 present distributions of primary mode by respondent income, sex, age, ethnic group, home state, and vehicle availability categories, respectively.

Income – Table 9 presents primary mode by annual household income. Solo driving was most common among moderate- and high-income respondents, particularly respondents with incomes of $100,000 or more. Bus ridership declined steadily as income increased. But except for respondents who had incomes less than $30,000, use of other modes were essentially the same for most income categories.

Table 9
Current Primary Mode (3+ days) by Annual Household Income

Income	(n=__)	Primary Commute Mode				
		DA	CP/VP	Bus	Train	B/W
Less than $30,000	135	52.7%	14.2%	18.6%	10.5%	4.0%
$30,000 – 59,999	317	70.7%	7.1%	7.7%	12.8%	1.7%
$60,000 – 79,999	236	73/1%	5.2%	5.6%	15.2%	0.9%
$80,000 – 99,999	275	69.2%	8.3%	4.8%	13.7%	4.0%
$100,000 – 119,999	230	79.9%	6.6%	1.9%	8.8%	2.8%
$120,000 – 139,999	145	74.3%	8.9%	1.4%	13.7%	1.7%
$140,000 +	297	77.5%	11.7%	1.7%	7.0%	2.1%

Sex – As shown in Table 10, men were slightly more likely to drive alone to work than were women. Women were more likely than men to use a bus (6.7% women vs 4.8%) or train (13.7% women vs 9.7% men). Differences for other modes were not statistically significant.

Table 10
Current Primary Mode (3+ days) by Sex

Sex	(n=__)	Primary Commute Mode				
		DA	CP/VP	Bus	Train	B/W
Female	1,051	69.6%	8.4%	6.7%	13.7%	1.6%
Male	997	73.1%	8.9%	4.8%	9.7%	3.4%

Age – As shown in Table 11, the percentage of respondents who drove alone generally increased with increasing age. Respondents who were under 45 were more likely to carpool/vanpool or to use the bus than were older respondents, but these differences were not statistically significant. Use of train and bicycle/walk was essentially the same for all age groups.

Table 11
Current Primary Mode (3+ days) by Age

Age	(n=__)	Primary Commute Mode				
		DA	CP/VP	Bus	Train	B/W
< 25 years	115	58.4%	13.6%	11.1%	12.8%	4.0%
25 – 34	430	67.5%	9.7%	6.9%	13.7%	2.2%
35 – 44	622	71.0%	10.3%	5.7%	10.3%	2.6%
45 – 54	488	71.7%	8.1%	3.2%	14.4%	2.6%
55 +	271	82.0%	3.5%	5.2%	7.7%	1.5%
65 years or more	45	72.3%	9.0%	0.4%	13.3%	5.0%

Ethnic Group – Table 12 shows primary mode for the four largest ethnic groups. Whites and Asians were the most likely to drive alone and much less likely than other groups to use the bus. Hispanic respondents were the most likely to carpool and use the bus, nearly twice as likely as for most other ethnic groups. African-American respondents were more likely to use the train than were other respondents. Other differences were not statistically significant.

Table 12
Current Primary Mode (3+ days) by Ethnic Group

Ethnic Group	(n=__)	Primary Commute Mode				
		DA	CP/VP	Bus	Train	B/W
Hispanic	144	53.1%	18.8%	15.9%	9.2%	3.0%
African-American	318	63.3%	7.0%	9.8%	16.6%	3.3%
Asian	71	71.5%	12.3%	5.5%	7.1%	3.7%
White	1,323	77.8%	7.4%	2.3%	10.1%	2.4%

State of Residence – As illustrated in Table 13, respondents' commute modes differed by where they lived. About three-quarters of respondents in Virginia and Maryland drove alone to work, while one two in five (41.9%) District of Columbia residents primarily used this mode for commuting.

District residents were significantly more likely to use bus, train, bike, or walk to work than were respondents living in other states. Mode shares for Maryland and Virginia residents were not statistically different from each other for any mode.

Table 13
Current Primary Mode (3+ days) by State of Residence and State of Employment

State	(n=__)	Primary Commute Mode				
		DA	CP/VP	Bus	Train	B/W
State of Residence						
DC	175	41.9%	8.0%	16.9%	23.2%	10.0%
Maryland	848	75.2%	8.2%	5.4%	9.4%	1.8%
Virginia	1,025	74.9%	9.4%	3.4%	11.1%	1.2%
State of Employment						
DC	544	45.6%	11.1%	9.7%	29.3%	4.3%
Maryland	633	83.1%	5.6%	4.6%	4.3%	2.4%
Virginia	824	83.1%	8.8%	3.4%	3.6%	1.1%

State of Employment – Table 13 also displays mode by state of employment. Respondents 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. District workers were more likely to carpool or ride a bus than were Maryland or Virginia workers. But train use for respondents working in the District was dramatically higher than for other respondents. District workers were seven times more likely than other respondents to use the train as their primary mode. As was the case for residential locations, mode shares were statistically the same for Maryland and Virginia workers.

Vehicles Available – Finally, Table 14 shows the mode distribution 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 commute by bus or train than were those with one or more vehicles. As the number of vehicles in the household increased from zero to one, one to two, then two to three, driving alone increased and the use of bus and train declined significantly. Carpooling was fairly equal when one or more vehicles were available, however, regardless of the number of vehicles available.

Table 14
Current Primary Mode (3+ days) by Number of Vehicles in the Household

Number of Vehicles	(n=__)	Primary Commute Mode				
		DA	CP/VP	Bus	Train	B/W
0	77	3.4%*	14.0%	37.3%	33.5%	11.9%
1	502	65.3%	9.5%	5.8%	16.3%	3.1%
2	830	75.3%	8.2%	4.3%	10.0%	2.2%
3	358	84.1%	8.4%	3.1%	3.8%	0.6%
4 or more	267	83.7%	6.7%	0.1%	9.2%	0.3%

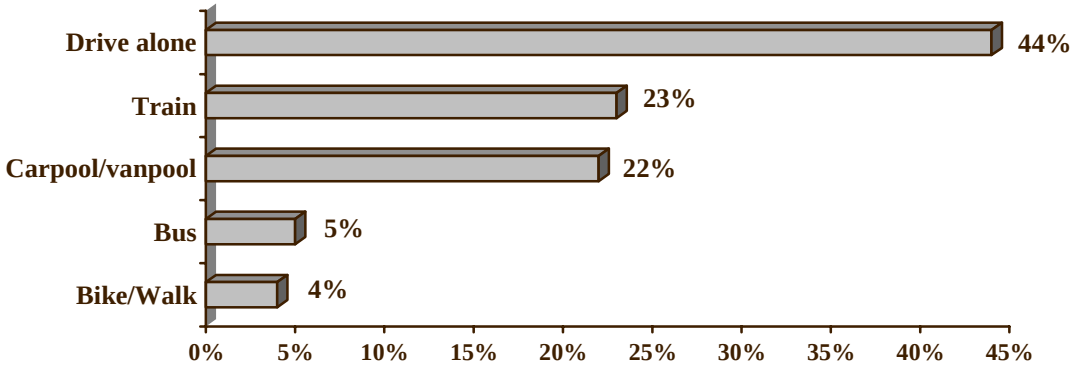
* Respondents in this group could be passengers in taxi

Secondary Commute Mode – As noted earlier, not all respondents used one mode of transportation five, or even four, days per week. About five percent of commuters also had a "secondary" mode; a mode they used one or two days per week. Figure 5 presents percentages of respondents who used various secondary modes in addition to primary modes.

The most common secondary mode was drive alone; about two in five (44%) respondents said they drove alone one or two days per week. Train and carpooling were used as secondary modes by 23% and 22% of respondents, respectively. About one in twenty either rode a bus (5%) or biked or walked (4%) to work one or two days per week.

Figure 5
Secondary Commute Modes Used

(n=99)



Length of Commute

Number of Miles – Commuters in the sample had a wide range of commute distances, ranging from less than one mile to more than 100 miles. Table 15 presents the distribution of distance. The average one-way commute distance was 16.3 miles, approximately the same as the 16.5 mile average calculated in the 2004 SOC survey. As shown in the table, more than one-third of the respondents (38%) commuted fewer than 10 miles one-way. Three in ten (29%) said they traveled between 10 and 19 miles. A small percentage (8%) had commute distances of 40 miles or greater.

Table 15
Commute Distance (miles)

(n=1,914)

Number of Miles	Percentage	Number of Miles	Percentage
Less than 5 miles	16%	20 to 29 miles	17%
5 to 9 miles	22%	30 to 39 miles	9%
10 to 14 miles	16%	40 or more miles	8%
15 to 19 miles	13%	**Mean distance**	**16.3 miles**

Respondents traveled approximately the same distance regardless of their work location. Respondents who were employed in the District of Columbia traveled an average of 15.5 miles, compared to 16.0 for respondents who worked in Virginia and 17.1 miles for employees in Maryland. But respondents who lived in Maryland and Virginia traveled farther, 18.1 miles and 16.5 miles, respectively, than did residents of the District of Columbia, who traveled only 8.2 miles one way to work.

Commute Distance By Mode – Survey respondents' travel distance varied by the type of transportation they used to commute. As shown in Table 16, commuter rail riders traveled the farthest, 35.4 miles one-way. Carpool and vanpool commuters also traveled farther than did respondents who drove alone, rode a bus, or rode Metrorail.

Table 16
Commute Distance by Primary Commute Mode (3+ days per week)

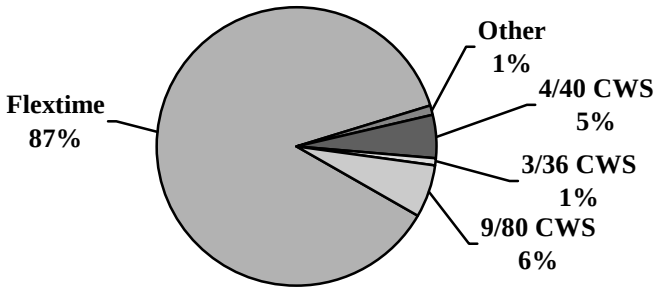
Primary Commute Mode	Average Distance (mi.)	
	(n=__)	Average
Drive alone	1,347	16.2 mi.
Carpool/Vanpool	194	21.3 mi.
Bus	96	16.7 mi.
Metrorail	133	14.5 mi.
Commuter rail	18	35.4 mi.
Bike/walk	46	3.7 mi.

Non-Standard Work Schedules

Non-Standard Work Schedules Used – About one in three (30%) respondents said they worked a "non-standard" work schedule, for example, a full-time work week in fewer than five days or flexible start times. The most common schedule, as illustrated in Figure 6 below, was flex-time or flexible work hours, used by 87% of these respondents. Compressed work schedules were used by about 12% of these respondents: five percent worked a 4/40 schedule, six percent worked a 9/80, and one percent worked a 3/36 schedule.

Figure 6
Non-Standard Schedule Types Used

(n=608)



Commute Distance by Non-Standard Schedule – Respondents who worked non-standard work schedules traveled slightly farther to work (on days they traveled to their regular worksite) than did other respondents. The average distance for all respondents was 16.3 miles, one-way. Respondents who worked a standard schedule traveled an average of 15.9 miles, while respondents who worked a compressed schedule traveled an average of 17.6 miles. Respondents who had a flexible schedule traveled 17.6 miles one-way.

Primary Commute Mode by Non-Standard Schedule – Use of non-standard work schedules sometimes has been assumed to reduce the use of alternative modes for commuting, by making it more difficult to maintain a carpool or vanpool or by reducing the possibility of using transit for early or late hour commuting. But as seen from Table 17, respondents who worked a compressed schedule actually had carpool/vanpool rates equal to those of respondents who worked a standard, non-compressed, schedule and had a lower drive alone rate.

Table 17
Current Primary Mode (3+ days) by Use of Non-Standard Schedules

Type of Non-Standard Schedule	(n=__)	Primary Commute Mode				
		DA	CP/VP	Bus	Train	B/W
CWS	85	65.9%	9.5%	2.8%	18.8%	3.0%
Flextime	530	71.6%	9.1%	7.1%	10.2%	2.1%
No non-std schedule	1,411	71.4%	8.5%	5.5%	11.9%	2.5%

Alternative Mode Use Characteristics

Length of Time Using Alternatives – Respondents who used an alternative mode of transportation to get to work at the time of the survey were asked the length of time they had been using the alternative mode they used most often. Results are presented for this question in Table 18. The table also shows the results for this question for the 2004 SOC survey.

A substantial portion of respondents who were using alternative modes at the time of the survey were long-term users of alternative modes. About a third (34%) of respondents had used their current alternative mode for more than five years and 57% had used this mode for more than two years. The mean (average) time using an alternative mode was 69 months. These results closely mirror those for the 2004 SOC survey, shown in last column.

Table 18
Length of Time Using Alternative Mode

Time Using Alternative Modes	2005 M-HH Percentage (n=605)	2004 SOC Percentage (n=1,719)
Less than one year	23%	23%
12 – 24 months	20%	23%
25 – 36 months	12%	9%
37 – 60 months	11%	12%
More than 60 months	34%	33%
Mean duration	**69 months**	**70 months**
Median duration	**36 months**	**36 months**

Modes Used Before Starting Current Alternative Modes – Respondents who used an alternative mode during the survey week were asked what modes they used before starting these alternatives. Table 19 displays these results.

Table 19
Modes Used Before Starting Current Alternative Modes
(n=605)

Alternative Mode	Percentage *
Drive alone	42%
Bus	12%
Metrorail	11%
Carpool/vanpool	9%
Bike/walk	6%
Commuter rail	1%
CWS/TC	<1%
Always used this mode	10%
Not working in DC area then	13%

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

The most common previous mode was drive alone; 42% of respondents said they previously drove alone to work one or more days. About one in four respondents (24%) said they previously used transit, either a bus (12%) or train (12%) to work. Nine percent said they had carpooled or vanpooled before switching to their current alternative mode and six percent previously walked or bicycled.

Carpool and Vanpool Occupancy – The average numbers of occupants in respondents' carpools and vanpools were 2.6 and 7.5 people respectively. Overall average pool occupancy was 2.8. The carpool occupancy was equal to the 2.6 person average from the 2004 SOC survey, but the vanpool average dropped from 10.0 average riders in 2004. It is likely this drop was primarily the result of the very small sample size for vanpool; only 13 respondents said they vanpooled to work.

Use of Other Alternative Modes

Alternative Modes Tried – Respondents who did not work at home full-time were asked about use of alternative modes 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 for their commute. Respondents who were using an alternative mode when the survey was conducted were asked if they had used an alternative mode other than the mode they were currently using. Results for this question are presented in Table 20.

Table 20
Previous Use of Alternative Modes and Modes Used/Tried

Alternative Modes Used/Tried	**Percentage *** (n=371)
Train - Metrorail	51%
Train - commuter rail	6%
Bus	19%
Carpool	19%
Walk	5%
Bicycle	6%
Vanpool	<1%

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

Approximately one in five respondents (20%) said they used or tried an alternative mode or another alternative mode. This was about the same percentage as said they used or tried another alternative mode in 2004 (22%). Train was the alternative mode mentioned most frequently; more than half of respondents used or tried either Metrorail (51%) or commuter rail (6%). One in five respondents (19%) tried or used a bus and another 19% tried or used a carpool. Smaller percentages said they had tried walking (5%) or biking (6%). About one percent said they tried vanpooling.

Length of Time Using Other Alternatives – Respondents who had tried or used an alternative mode other than one they were currently using generally used the modes for a short time. Table 21 indicates that 45% of these respondents used these modes for less than one month or used them "occasionally/once." Abut four in ten (43%) used or tried the mode for one month to one year. The remaining 12% used these other alternatives for more than one year.

Table 21
Length of Time Using Alternative Modes Used/Tried in Past Two Years
(Modes Not Used Currently)
(n=320)

Time	Percentage	Time	Percentage
Occasionally/once	37%	7 – 12 months	14%
Less than 1 month	8%	13 – 23 months	2%
1 – 6 months	29%	24 or more months	10%

These results were considerably different from the generally long alternative mode duration for current alternative mode users, presented in Table 19. The short duration of use for this question reflects the exploratory or trial nature of use for some respondents. Additionally, some use likely was due to short-term necessity or convenience, such as using the train or bus when one's car is in the shop for repairs.

Reasons for Using Alternative Modes – Respondents who used an alternative mode, either during the survey week or within the past two years were asked why they began using those modes. The reasons are listed in Table 22. Most reflected a preferences or attitude about commuting (e.g., save time), a change in personal circumstances (e.g., changed jobs/work hours), or a personal need (e.g., stay with children or family).

Current Alternative Mode Users – The center column shows responses for respondents who used alternative modes at the time of the survey. The most common commute-related reasons included "save time" (14%) and "save money" (13%). Smaller percentages of respondents said they "were tired of driving" (6%), wanted to "avoid congestion" (4%), didn't have parking or had to pay a parking charge (4%), or because they "found a carpool or vanpool partner" (3%). The top personal circumstance reasons included: "changed jobs or work hours" (76%), "no vehicle available" (14%), or "moved residence" (10%).

Respondents Who Used or Tried Other Alternative Modes – The last column of Table 22 shows reasons given by respondents who tried or used an alternative mode in the past, but that they were no longer using. The top reasons generally mirror those that respondents gave for why the used their current alternative mode. To "save time" (11%), "save money" (11%), "tired of driving" (8%), or "avoid congestion" (7%) were the most important commute-related reasons.

Table 22
Reasons for Using Alternative Modes

Reasons	Percentage of Current Users (n=609)	Percentage of Past Users/Trial Users (n=1,350)
Commute related reasons		
- Save time	14%	11%
- Save money	13%	11%
- Avoid congestion	4%	7%
- Tired of driving	6%	8%
- No parking, parking expense	4%	4%
- CP/VP partner available	3%	1%
- Gas prices too high	2%	3%
- Financial incentive offered	1%	1%
- Too stressful, too much traffic	1%	2%
Personal circumstances reasons		
- Changed jobs/work hours	17%	7%
- No vehicle available	14%	22%
- Moved to new residence	10%	2%
- Always used	1%	2%
- Employer/worksite moved	3%	3%
- Spouse started new job	1%	1%
- Get exercise	2%	3%
- Stay with family/children	4%	0%
- Convenient, close to work	2%	2%
- Car became available	1%	3%
- Temporary need	0%	1%
- Weather	0%	12%
Other	7%	10%

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

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

But these respondents were much more likely to note, "no vehicle available" (22%) as the reason, than were current alternative mode users (14%). It is also interesting that 12% of those who tried/used a new

alternative in the past two years cited "weather" as their reason, compared with no respondents among current alternative mode users, suggesting occasional or short-term use.

Reasons for Not Continuing with Alternatives – Perhaps a more useful question to ask respondents who tried or used alternative modes in the past but do not now is why did they stopped using these modes? These reasons are detailed in Table 23.

The most frequently mentioned reasons why respondents did not continue using an alternative mode included that it was "too inconvenient" (30%), the respondent made a "job change" (17%), or because the alternative "took too much time" (14%). About one in ten (11%) said they intended to use the mode only temporarily, for example, because the car was in the repair shop, or stopped because a "car became available" (10%). About seven percent said they stopped because the mode "costs too much."

Table 23
Reasons for Not Continuing Other Alternative Modes

(n=324)

Reasons	Percentage*
Too inconvenient	30%
Job changes	17%
Took too much time	14%
Only used temporarily (e.g., car was in shop)	11%
Car became available	10%
Costs too much	7%
Need vehicle during/after work	5%
Weather related	5%
Child-related activities	4%
Moved residence	3%
Vehicle unavailable/unreliable	3%
Lost carpool partner	2%
Bus/rail schedule/route change	2%
Train crowded	2%
Safety concerns	1%
New or change in employer program	1%
Other**	5%

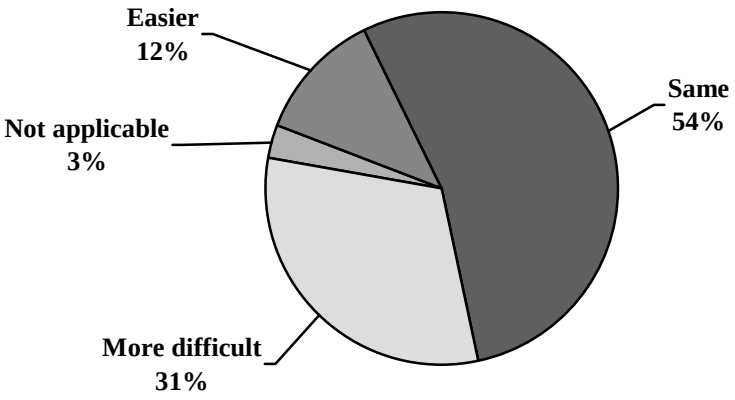
*Might add to more than 100% because multiple responses were permitted

**Each "Other" response was mentioned by less than one percent of respondents

Ease of Commute Compared to Last Year

Respondents who did not telecommute or work at home all the time were asked if their commute time was easier, more difficult, or about the same as it was a year prior. As seen in Figure 7, the majority of respondents (54%) said their commute is about the same. About three in ten (31%) said their commute was more difficult and 12% said their commute was easier. About three percent of respondents said they were not commuting in the Washington region a year ago, so could not provide a comparison.

Figure 7
Commute Easier, More Difficult, or Same as Last Year
(n=2,027)



Respondents who said their commute had changed were asked in what way it was easier or more difficult. The top section of Table 24 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 were that it was shorter, cited by 37% of these respondents or faster, mentioned by 36%. About a quarter (24%) said the route they used was less congested. About six percent said the commute was less stressful and nine percent said their commute was easier because they had started using a different form of transportation for commuting. Three percent started driving alone to work, but six percent improved their commute by using an alternative mode.

More Difficult Commute – An overwhelming majority (79%) of respondents who said their commute was more difficult said the route had become more congested. A tenth of respondents said either the trip was slower/took more time (14%) or the distance was longer (11%). Two other notable reasons for a more difficult commute were: "construction along route to work," cited by eight percent of commuters, and "trains are too crowded," named by five percent.

Table 24
Reasons for Easier or More Difficult Commute

Reasons	Percentage
Easier Commute (n=232)	
Shorter distance	37%
Trip is faster, takes less time	36%
Route is less congested	24%
Trip is less stressful	6%
Started using bus or train to work	4%
Started driving alone to work	3%
Started using HOV lane	3%
Started carpooling/vanpooling to work	2%
Other	8%
More Difficult Commute (n=666)	
Route is more congested	79%
Trip is slower, takes more time	14%
Longer distance	11%
Construction on route to work	8%
Trains are too crowded	5%
Trip is more stressful	3%
Other	5%

Changes in Residence 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 one quarter (24%) made a change and 76% made no change. But as Table 25 indicates, the ease or difficulty of the commute appears to have been related to moves for at least some of the respondents.

The majority (61%) of respondents who did not move said their commutes were about the same. About seven percent said their commute had improved and about a third (32%) said it had gotten more difficult. A similar percentage (33%) of respondents who moved said they had a more difficult commute. But the percentage of these respondents who said their commute had improved was much higher, 39%, than the percentage of respondents who had an easier commute without a move. This suggests that the move might have played a role in either improving or worsening a commute, but that the move more often improved the commute.

Table 25
Commute Compared to Last Year
by Made a Change in Work or Residence Location

Changed Home or Work Location	(n =__)	Commute Easier	Commute More Difficult	Commute About the Same
No	1,553	7%	32%	61%
Yes	417	30%	33%	37%

3-C TELECOMMUTING

Current and Potential Telecommuting

The SOC survey also explored respondents' telecommute experience. For purposes of this survey, telecommuters 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*."

Respondents who Currently Telecommute – Respondents were read the above definition of telecommuting and asked if they would consider themselves telecommuters based on this definition. A total of 12.5% of all regional workers said they telecommute, either regularly or occasionally. About one in ten teleworkers (9%) said they telecommute every day that they work.

But telecommuters accounted for a higher percentage, 13.2%, of all regional commuters, that is, workers who travel to a main work location on non-telecommute 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 telecommuting in eliminating commute trips, thus is relevant for assessing travel and air quality benefits of telecommuting. The 13.2% of regional commuters telecommuting represents a slight increase over the 2004 level of 12.8%, as measured though the telecommute questions on the 2004 SOC survey.

Respondents who Occasionally Worked at a Location Other than Main Work Place – The telecommute definition presented above was the same as the definition that had been used in the 2004 SOC survey, but was more restrictive than the definition used in the 2001 SOC survey. In 2001, the definition was, "*wage and salary employees who at least occasionally work at home or at a location other than their central work place during their normal work hours*."

The definition was changed in 2004 to reflect a more accurate representation of what Commuter Connections considers telecommuting. For example, the 2001 definition would have included workers who work at client sites outside of the Washington region, workers, such as sales or equipment repair staff, who travel to multiple customer locations during the course of the day, and respondents who worked a portion of the normal workday at home, but traveled to the regular workplace for another part of the day. The examples cited above are not generally considered telecommuting for transportation-related purposes, thus the 2004 definition was rewritten to exclude these workers.

To examine the extent of "work elsewhere" occurring in the region, a new question was added to the 2005 survey to identify workers who might fall into the three "non-telework, but work elsewhere sometimes" categories described above. This question read, "*Do you at least occasionally work at home or at a location other than your central work place during your normal work hours*?" It was asked of respondents who said they were not telecommuters under the 2005 definition.

About one in ten respondents said they did occasionally work at a different location for some portion of their regular work hours. About three-quarters (77%) said they worked at home on these days. About eight percent said they worked at a client's or customer's office, 10% worked at another office of their employer, and 5% said they worked at a community or business center. These respondents said they worked at an alternate location about two days per month.

Interest in Telecommuting – Respondents who said they were not telecommuting 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. Approximately one-third of these respondents, representing about 28% of regional workers, replied that this would be possible.

Respondents for whom telecommuting was a possibility were asked if they would want to telecommute. About a quarter said they were not interested in telecommuting, but three-quarters said they would be interested in telecommuting on either an occasional basis (55%) or a regular basis (21%).

These results suggest additional telecommute growth potential exists in the Washington metropolitan region. Table 26 summarizes the telecommute status of all respondents. As noted before, about five percent of all respondents said they were self-employed/work at home full-time. Another 12.5% of regional workers currently telecommute. But an additional 21% regional commuters, or about 526,000 workers "could and would" telecommute, that is, they have job responsibilities that could be done while telecommuting and they would be interested in telecommuting, if given an opportunity.

The remaining respondents said they would not be interested in telecommuting (7%) or that their job responsibilities would not allow telecommuting (55%).

Table 26
Summary of Current and Potential Telecommuting
All Regional Workers
(n=2,163)

Telecommuting Status	Percentage
Self employed/work at home full-time	5.0%
Currently telecommuting	12.5%
Not telecommuting	
- Job responsibilities allow telecommuting and INTERESTED in telecommuting ("could and would")	21%
- Job responsibilities allow telecommuting, but NOT INTERESTED in telecommuting	7%
- Job responsibilities would NOT allow telecommuting	55%

Telecommuting by Personal Characteristics – Telecommuting is not distributed equally by demographic group. Table 27 compares telecommuting by respondents' sex, ethnic group, age, income, commute distance, and home and work states. The third column shows the percentage of each demographic group who telecommutes today (e.g., 13% of men and 12% of women telecommute). The last column shows the percentage of non-telecommuters in the group who "could and would" telecommute if given the opportunity (e.g., 19% of non-telecommuting women could and would telecommute). Note that this should be compared against the 21% of all regional workers who "could and would."

Table 27
Telecommuters by Demographic and Travel Characteristic

Demographic Group	(n=___)	Percentage Who Currently Telecommute	Percentage who "Could and Would" Telecommute*
Sex			
Male	1,052	13%	23%
Female	1,111	12%	19%
Ethnic Group			
White	1,407	13%	23%
Hispanic	1147	6%	9%
Asian	76	15%	25%
African-American	333	11%	20%
Age			
Under 25 years	114	5%	21%
25 – 34	444	14%	20%
35 – 44	654	12%	21%
45 – 54	518	15%	25%
55 or older	342	12%	18%
Income			
Less than $30,000	139	6%	7%
$30,000 – $59,999	334	7%	18%
$60,000 – $99,999	532	11%	23%
$100,000 – $139,999	390	13%	27%
$140,000+	314	26%	27%

Some demographic groups telecommute more than do others. For example, 13% of white respondents and 15% of Asians telecommuted, compared to six percent of Hispanics. And telecommuting was uncommon among very young respondents (under 25 years old). Telecommuting increased as income increased; 13% of workers with household incomes between $100,000 and $139,999 telecommuted, compared with only six percent of workers with incomes under $60,000. And 26% of respondents with annual household incomes of $140,000 or more telecommuted.

As shown in Table 27 (cont.), below, telecommuting rates were approximately equal for commuters who travel fewer than 30 miles. The telecommute rate for longer-distance commuters was slightly

higher, but was not a statistically significant difference. Rates also were similar for respondents who lived in different states and for respondents in different employment locations. None of the apparent differences shown in Table 27 (cont.) were statistically significant.

Table 27 (cont.)
Telecommuters by Demographic and Travel Characteristics

Demographic Group	(n=___)	Percentage Who Currently Telecommute	Percentage who "Could and Would" Telecommute*
Commute Distance			
Less than 10 miles	689	14%	20%
10 – 29 miles	753	13%	26%
30 miles +	481	16%	21%
State of Residence			
District of Columbia	180	13%	22%
Maryland	901	11%	21%
Virginia	1,082	14%	20%
State of Employment			
District of Columbia	550	15%	27%
Maryland	686	12%	16%
Virginia	878	12%	19%

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

Tables 27 and 27 (cont.) also illustrates which groups have the greatest potential for future telecommuting. That is, in which groups would workers be most likely to telecommute in the future, if given the opportunity? The last column in the table shows percentages of workers whose job responsibilities would allow telecommuting and who would like to telecommute. In general, the groups with the highest current telecommuting show the greatest additional potential and groups with low current telecommuting also show low potential.

But some groups had noticeably higher potential than the 21% average among all workers. These included high-income respondents ($140,000 or more annual income) and respondents who worked in the District of Columbia. Twenty-seven percent of workers in these groups said their jobs would allow them to telecommute and that they would like to telecommute.

Telecommuting by Employment Characteristics – The survey data also showed some differences in the distribution of telecommuters and potential telecommuters by employment characteristics. As shown in Table 28, non-profit agencies had the highest telecommuting rate (19%), while state and local agencies had the lowest (4%). Private employers and federal government agencies both had telecommute rates of 14%. These differences were statistically significant.

Table 28
Telecommuters by Employment Characteristics

Demographic Group	(n=___)	Percentage Who Currently Telecommute	Percentage who "Could and Would" Telecommute*
Employer Type			
Private employer	985	14%	20%
Non-profit org.	184	19%	29%
State/local agency	280	4%	17%
Federal agency	424	14%	28%
Employer Size			
1 – 25	535	13%	16%
26 – 100	484	10%	18%
101 – 250	245	7%	27%
251 – 999	248	22%	27%
1,000+	435	19%	29%
Occupation			
Executive, manager	409	16%	28%
Professional	786	15%	26%
Sales	129	20%	23%
Admin. support	109	14%	12%
Service	160	8%	14%
Precision production	85	10%	8%

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

Generally, telecommuting rates were higher for larger employers. About one in five respondents who worked for companies with more than 250 employees teleworked, compared with 13% or fewer tele-workers among respondents who worked for smaller employers.

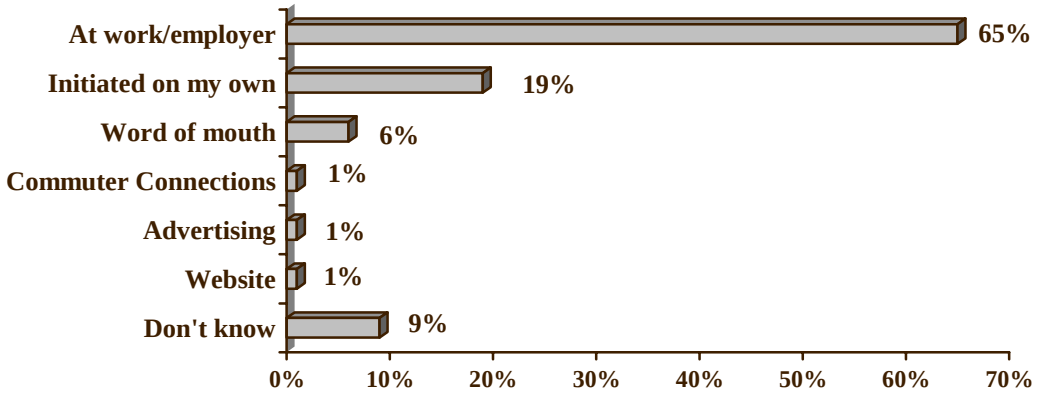
Some occupations had higher telecommuting rates than average, including sales (20%), professional (15%), and executive/managerial (16%). Two common occupations with below average telecommute rates included service (8%), and precision craft/production (10%).

Table 29 also illustrates the potential for telecommuting among these employment groups. As with the demographic groups, the relative percentages of non-telecommuters who could and would telecommute if given the opportunity generally mirrored the relative percentages of respondents who were telecommuting in each group. A few groups did have higher potential than the 21% average for all workers, however.

Two groups with latent potential for telecommuting were employees of federal government agencies and non-profit organizations. Nearly three in ten workers in these categories said their jobs would allow them to telecommute and that they would like to telecommute. Similarly, potential appears to exist among employers with 100 or more employees. At least 27% of workers in this group said they could and would telecommute if given the opportunity. Finally, two occupations show above average telecommute opportunity: professionals (26%) and executive/managerial (28%).

Sources of Telecommute Information – Respondents who telecommuted were asked how they had learned about telecommuting and if they had received telecommuting information directly from Commuter Connections or MWCOG, either from the Commuter Connections' Telework Resource Center or from an MWCOG web site. The most frequently mentioned sources are shown in Figure 8.

Figure 8
Sources of Information About Telecommuting
(n=266)



The largest source of information, by far, was "program at work/employer," named by two-thirds (65%) of the respondents. This percentage was higher than the 56% who named "employer" in the 2004 SOC survey and much higher than the 34% who cited this source in the 2001 SOC survey. The second most

common source was "initiated request on my own," named by 19%. About one in twenty telecommuters said they learned of telecommuting through "word of mouth" (6%).

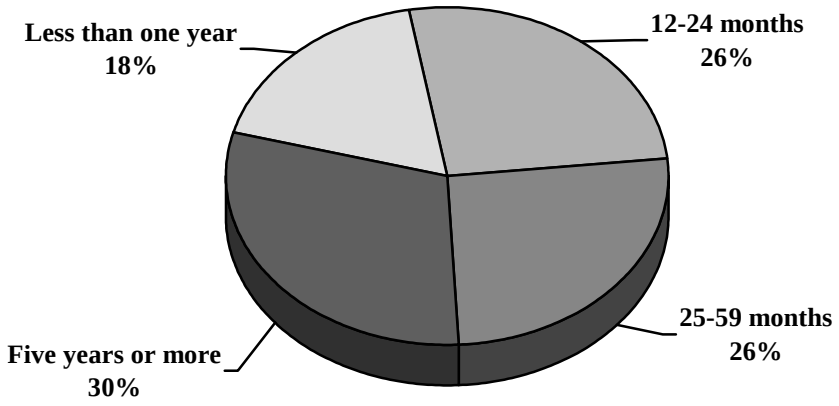
About one percent said they received telecommuting information directly from Commuter Connections or MWCOG and one percent said they learned about telecommuting through advertising. Although this is not necessarily advertising from Commuter Connections, MWCOG has advertised broadly about telecommuting, so that this response could indicate additional telecommuters who learned about telecommuting from outreach and promotion conducted by Commuter Connections. A portion of the "special program at work/employer" also could be the result of Commuter Connections' outreach and assistance to encourage employers to implement telework.

Telecommute Patterns

Respondents who said they telecommuted, at least occasionally were asked a series of questions about their telecommuting characteristics including: length of time telecommuting, use of informal or formal telecommute arrangement, telecommute location, frequency of telecommuting, and access mode to telecommute locations outside the home.

Length of Time Telecommuting – As illustrated in Figure 9, just under half (44%) of respondents who telecommuted started telecommuting within the past two years and almost one in five (18%) started within the past year. One third said they had been telecommuting five or more years. On average, respondents had been telecommuting about 45 months.

Figure 9
Length of Time Telecommuting
(n=265)



Telecommute Frequency – The frequency with which respondents telecommuted is detailed in Table 29. About three in ten respondents who telecommuted did so infrequently and not regularly, either for special projects (13%) or less than once per month/only in emergencies (15%). Another 27% said they telecommuted a few times each month. The remaining 45% telecommuted at least one day per week. About 18% telecommuted three or more days per week. On average, respondents who said they were telecommuters used this arrangement about 1.2 days per week.

Table 29
Frequency of Telecommuting
(n=264)

Frequency	Percentage
Occasionally for special projects	13%
Less than once per month/emergency	15%
1 – 3 times per month	27%
1 day per week	16%
2 days per week	11%
3 or more times per week	18%
Average (mean) days per week	**1.2 days**

We note that this 1.2 days per week frequency is lower than the 2.6 days per week frequency indicated earlier for respondents who telecommuted during the survey week. But the 1.2 day per week overall telecommute frequency accounts for both the actually frequency of respondents who telecommuted during the survey week and an expected weekly frequency for respondents who did not telecommute during the survey week, but said they occasionally telecommuted (e.g., one to three times per month).

Telecommute Locations – As shown in Table 30, the overwhelming percentage (95%) of telecommuters said they telecommuted exclusively from home. But other telecommuters named a variety of other telecommute locations. The most common "other" location was a "satellite office provided by the employer" (2%). Four respondents (1%) said they telecommuted from one of the 17 telework centers located in the Washington metropolitan region.

Table 30
Telecommuting Work Place
(n=265)

Locations	Percentage
Home	95%
Satellite office provided by employer	2%
Both home and other location	1%
Telework center	1%
Other*	1%

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

Access Mode to Telecommute Locations – Thirteen respondents who telecommuted from a location other than home were asked what mode of travel they used to reach that location. Results are shown in Table 31. Eight of the respondents drove alone and three used an alternative mode. These telecommuters traveled an average distance of 11 miles to these locations.

Table 31
Access Mode to Telecommute Locations Outside the Home
(n=13)

Access Mode	Frequency
Drive alone	8
Carpool/vanpool	1
Transit	1
Bicycle/walk	1
Other	2

3-D AWARENESS OF COMMUTE ADVERTISING AND SERVICES

Commute Advertising Recall

The next set of questions in the survey inquired about respondents' awareness of commute information advertising. Just over half (57%) of all respondents said they had seen, heard, or read advertising about commuting in the six months prior to the survey. This was about the same percentage (55%) as reported in the 2004 SOC survey that they had recently seen, heard, or read commute program advertising.

Message Recall – These respondents were then asked what messages they recalled from this advertising. Approximately two-thirds (69%) could cite a specific message, slightly more than the 63% who could recall a message in 2004. Table 32 lists messages respondents in the survey remembered and the percentage of respondents who cited each message. It also shows similar results for the 2004 and 2001 SOC surveys. The messages are divided into two categories: general rideshare and commute programs/services.

General Rideshare Messages – One general rideshare message, "use the bus, train, Metrorail" was recalled by 11% of respondents. Smaller numbers of respondents mentioned rideshare benefit messages: "it reduces traffic" (7%), "it would help the environment" (3%), "it saves time" (2%), and "it's less stressful" (1%). Recall of all of these messages was similar to the recall noted in the 2004 SOC survey, but less than recall noted in the 2001 SOC survey. This change in awareness from 2001 to 2004 could reflect a shift by Commuter Connections from 2001 through the beginning of 2003 from general rideshare messages to advertising about specific commute services available to commuters. But beginning in July 2003, Commuter Connections introduced a new umbrella approach that included advertising about various alternative modes through the Mass Marketing TERM.

Commute Program/Service Messages – Recall of messages about most commute assistance services was higher than recall of general rideshare messages. Almost two in ten respondents mentioned "you can call for carpool/vanpool information" and one in ten (9%) cited "new buses and trains coming." Respondents also recalled other message specifically about Commuter Connections program or service, including, "call 1-800-745-RIDE/call Commuter Connections" (5%), "GRH" (5%), and "Telework Center or telecommuting" (6%).

Recall of messages about most commute assistance services in 2005 was similar to results for 2004 but higher than in 2001. Eighteen percent of respondents mentioned "you can call for carpool/vanpool information," approximately the same as in 2004, but double the nine percent who recalled this message in 2001.

Table 32
Recall and Influence of Advertising Messages, 2005, 2004, 2001

Message Recalled	2005 M-HH* (n=1,197)	2004 SOC* (n=4,014)	2001 SOC* (n=4,036)
General Ridesharing Messages			
Use the bus, train, Metrorail	11%	7%	7%
It reduces traffic	7%	3%	5%
It would help the environment	3%	2%	4%
It saves money	3%	<1%	<1%
It saves time	2%	2%	10%
It is less stressful	1%	1%	2%
Share a ride/ridesharing	<1%	<1%	3%
Commute Program/Service Messages			
You can call for carpool/vanpool info	18%	17%	9%
Guaranteed Ride Home	5%	12%	3%
New trains or buses are coming	9%	7%	4%
Telework Center/telecommuting	6%	3%	2%
Call 1-800-745-RIDE/Commuter Connections/web	5%	6%	5%
Wilson bridge reconstruction, Bridge Bucks	5%	4%	----
HOV lanes	4%	2%	12%
Employer would give Metrochek benefits	3%	2%	3%
Commuter Choice Maryland	2%	0%	0%
None, don't know	31%	37%	30%
Other **	7%	6%	6%

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

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

Recall of Advertising Sponsors – About two thirds (64%) said they did not remember who sponsored the ad. The remaining respondents mentioned the organizations listed in Table 33. Commuter Connections or COG was named by the 13% of respondents. The Washington Metropolitan Area Transit Authority (WMATA, Metro) was a close second, cited by 11% of respondents. One to three percent of respondents noted Virginia Railway Express (VRE), the Virginia Department of Transportation (VDOT), the Maryland Department of Transportation, or the Maryland Mass Transit Administration (MTA).

Table 33
Recall of Advertising Sponsors

(n=852)

Advertising Sponsor	Percentage
Commuter Connections, MWCOG	13%
Metro, WMATA	11%
Virginia Dept. of Transportation (VDOT)	3%
Virginia Railway Express, VRE	2%
Maryland Dept. of Transportation (MDOT)	2%
Maryland Mass Transit Administration (MTA)	1%
Don't remember, don't know	64%
Other *	6%

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

Advertising Sources/Media – Table 34 presents the primary sources or media through which respondents heard, saw, or read commute advertising.

Table 34
Advertising Source/Media

(n=851)

Advertising Source/Media	Percentage *
Radio	48%
Television	29%
Newspaper	13%
Sign on transit vehicle, or at bus stop or Metro station	14%
Website/internet	1%
Billboard/ad on side of the road	2%
Postcard in the mail	3%
Don't remember, don't know	3%
Other **	1%

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

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

About half (48%) of respondents who recalled an ad said they heard it on the radio and three in ten (29%) said they saw the ad on television. About 13% mentioned newspaper and 14% cited a sign on a transit vehicle or at a bus stop or Metro station. A few respondents mentioned other sources.

Respondents who recalled ads for Commuter Connections' services were particularly likely to cite radio as the source. It was the source named by 71% of respondents who mentioned ads about contacting Commuter Connections, by 60% of respondents who recalled ads for GRH or telecommuting, and by 55% of respondents who recalled ads encouraging listeners to rideshare or use carpools/vanpools.

Commute Advertising Impact

Persuasiveness of Advertising Messages – The advertising appeared to have an effect for some respondents. About one in five (21%) respondents 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. Table 35 presents the advertising messages that seemed more and less persuasive than average.

Table 35
Likely to Consider Ridesharing or Public Transportation
After Seeing or Hearing Commute Advertising

Advertising Message Recalled	(n=___)*	Percentage Likely to Consider Alternative
It saves time	24	51%
It is less stressful	17	47%
It reduces traffic	80	27%
New trains or buses are coming	112	25%
Wilson bridge reconstruction, Bridge Bucks	62	25%
It would help the environment	23	24%
All messages	**742**	**21%**
Telework Center/telecommuting	454	21%
Guaranteed Ride Home	560	20%
Employer would give Metrochek benefits	26	19%
Call 1-800-745-RIDE/Commuter Connections	57	19%
Use the bus, train, Metrorail	137	18%
Save money	30	17%
HOV lanes	40	15%
You can call for carpool/vanpool info	215	14%

* Respondents who recalled ad message, caution – several small samples.

The most persuasive messages appealed to respondents' personal travel needs or concerns. About half of the respondents who recalled ads about "save time" or "is less stressful" said they were more likely to consider using an alternative after hearing these ads, but the sample sizes for these ads were very small. Other ads that appeared persuasive included: "reduces traffic," "Wilson Bridge reconstruction," "new buses and trains are coming," or "would help the environment." All other ads were at about or lower than the average (18%) level in their "persuasiveness."

The respondents who were most persuaded by the advertising were those who were already using transit modes during the survey week. About 30% of bus riders and 40% of train riders said they were likely to consider using an alternative after hearing the ads, compared with only 18% of respondents who were driving alone or carpooling. It is possible that some respondents who said they were likely to consider alternative modes after hearing or seeing the ads and who were using alternatives at the time of the survey shifted to alternatives after hearing or seeing the ads. But this conclusion was not tested with the survey data.

Commute Actions Taken After Hearing or Seeing Commute Advertising – Respondents who said they were more likely to consider alternative modes after hearing the ads were asked if they had taken any actions to try to change how they commuted. About one in five (21%) of these respondents said they did take some action. Specific actions noted are presented in Table 36.

Table 36
Actions Taken to Change Commute After Hearing or Seeing Commute Advertising

(n=164)

Actions Taken	Percentage*
Looked for commute info on the internet	3%
Asked family member or co-worker for commute info	3%
Contacted local/regional organization for commute info	4%
Looked for a carpool/vanpool partner	3%
Tried/started using alternative mode	8%
No action	78%
Don't know	1%
Other	1%

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

About one in ten respondents said they sought information about commuting on the internet (3%), from a family member or co-worker (3%), or from a regional or local commuter service organization (4%). Three percent said they looked for a carpool partner.
Eight percent said they tried or started using an alternative mode for commuting, but this was only nine respondents, so very little further analysis can be done on this small sample. Of the nine respondents,

four tried or started using the train, four tried or started using the bus, and one started carpooling. Prior to starting these new modes, five of the respondents had been driving alone to work, two had been using transit, and two had not been living in the region.

Influence of Ads on Commute Change Actions – More than two-thirds (71%) of respondents who had taken some action said the advertising they saw or heard encouraged the action. And more than half (57%) who took an action were driving alone at that time. This suggests that the advertising, although having a small impact on mode shifts, is acquainting drive alone commuters with other commuting opportunities and encouraging them to seek more information on these options.

Other Regional Commute Advertising

One purpose of this survey was to collect data that could be used to estimate impacts of the general commute and commute options advertising initiated by Commuter Connections in late summer 2003 under the Mass Marketing TERM. Many of the questions described in the previous section were designed for this purpose. But Commuter Connections also sponsors advertising for specific services it offers to commuters, such as the Guaranteed Ride Home (GRH) Program and the Telework Resource Center (TRC). Additionally, other organizations conduct advertising on HOV lanes. In an attempt to separate the influences of these various media campaigns, several questions were included in the survey regarding advertising for these other regional programs. Results of these questions are described below.

Telecommute Program Advertising – All respondents were asked if they had heard, seen, or read any advertising about telecommuting/telework in the past six months. About 37% said they had encountered this advertising. Respondents who were not telecommuting at the time of the survey were asked if the ads had made them more likely to consider telecommuting. These results are shown in Table 37.

Table 37
Likelihood to Consider Telecommuting After Hearing or Seeing Telecommute Advertising

(n=773)

Likely to Consider Telecommuting	Percentage
More likely	18%
- Asked employer about telecommuting	7%
- Started/tried telecommuting	2%
Not more likely	65%
Already telecommuting	17%

As shown in Table 38, 18% said they were more likely to consider telecommuting after hearing the ads. Two-thirds said they were not more likely to consider telecommuting, and 17% were already telecommuting when they heard the ads.

Respondents who said they were more likely to consider telecommuting were then asked if they had taken either of two telecommute actions: started telecommuting or asked their employers about telecommuting. About a third, equating to seven percent of all respondents who had seen or heard the ads, said they asked their employers about telecommuting. One in ten, equating to two percent of respondents who recalled telecommute ads, said they started or tried telecommuting.

GRH Program Advertising – Next, all respondents were asked if they had heard, seen, or read advertising about GRH in the past six months. About four in ten (41%) respondents answered yes to this prompted question. When these respondents were added to those who had mentioned GRH in an earlier, unprompted question, a total of 46% of respondents said they recalled GRH advertising.

These respondents were asked if they sought information about GRH or registered for GRH after seeing or hearing the ads. About five percent said they registered for a GRH program and an additional two percent said they had sought information about GRH but had not registered. The remaining 93% of respondents said they did not pursue more information about GRH or register.

HOV Lane Advertising – Lastly, respondents were asked if they had heard or seen advertising about HOV lanes. Nearly half (45%) said they did recall HOV ads. Of these respondents, 10% said they started using an HOV lane for commuting and an additional two percent said they sought information about HOV lanes.

3-D AWARENESS AND USE OF COMMUTER ASSISTANCE RESOURCES

Awareness of Commuter Assistance Numbers/Websites

The next set of questions in the survey investigated commuters' knowledge and use of regional commute assistance services. First, respondents were asked if they were aware of a telephone number or web site they could use to obtain information on ridesharing, public transportation, HOV lanes, and telecommuting in the Washington region. In total, 45% of respondents said they knew such a number existed. This was about the same as the 46% of respondents who said, in the 2004 SOC survey, that they knew a number to call for this information.

The remaining respondents either said there was not such a phone number or website (45%) or that they did not know if a phone number or web site existed (10%). These respondents were asked where they would look if they wanted to find this type of information for the Washington region. These responses are presented in Table 38.

Table 38
Potential Sources of Commute Information

(n=1,181)

Information Source	Percentage
Internet	60%
Phone book, yellow pages	10%
Word of mouth, friend, co-worker	5%
Newspaper ads	3%
Television	2%
Newspaper article	2%
Employer	1%
Other *	4%

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

By a large margin, respondents said they would look on the internet for this information. More than half of respondents (60%) mentioned this source. The second most common response, named by 10% of respondents, was the phone book or yellow pages, followed by word of mouth, named by five percent. Other possible sources, named by one to three percent of respondents, included: newspaper ads or articles, television, and employer.

Recall of Web Sites and Phone Numbers – When respondents who had said there was a regional phone number or web site were questioned on their recall of the actual number or website, about one-third (36%) could name a specific number or web site. Slightly over seven percent named a number or web site sponsored by Commuter Connections or MWCOG and about 16% named a WMATA phone number or web site. Other individual numbers or web sites were named by one percent or fewer respondents who said they knew of such a resource.

Table 39 summarizes the awareness of all numbers/web sites, as percentages of all regional commuters. About 16% of regional commuters could name a specific web site or number. About three percent could name a Commuter Connections number (2.0%) or web site (1.3%) as the source of commute information. Commuter Connections was second only to WMATA as a regional information source.

Table 39
Recall of Regional Commuter Assistance Telephone Number or Web site
(n=2,163)

Number or Web site		Percentage*
Not aware of phone number/web site		45%
Don't know if a phone number exists		10%
Aware of phone number/web site, but cannot name it		29%
Aware of phone number/web site and can name it		16%
Telephone numbers recalled:		
1-800-745-RIDE (7433)	**Commuter Connections/COG**	**2.0%**
202-637-7000	METRO, WMATA	1.5%
301-565-5870	Montgomery Transit Info Call Center	0.3%
703-324-1111	Fairfax County Ridesources	0.2%
Web sites recalled:		
www.mwcog.org		**0.8%**
www.commuterconnections.org		**0.4%**
www.commuterconnections.com		**0.1%**
wwww.wmata.com		5.7%
www.mtamaryland.com		0.5%
www.HOV calculateor.com		0.5%
www.VRE.org		0.4%
www.springfieldinterchange.com		0.2%
Other**		4.6%

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

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

When asked how they found out about the web sites/numbers they named, almost half (44%) said they learned about it from radio ad and four percent mentioned the television as the source. About one in eight (13%) cited the internet and 12% mentioned a sign or billboard. Seven percent said they learned about the number or web site by word of mouth and about four percent mentioned a brochure or their employer.

Use of Commuter Assistance Numbers/Web Sites – About two-thirds (68%) of respondents who could name a specific regional commuter assistance number or web site said they had used it in the past year. About 12% of respondents who knew about Commuter Connections' 800 number or website said they had used it in the past year.

Respondents who recalled hearing or seeing commute advertising in the past six months were slightly more likely to have used a commute number or web site than those who did not recall advertising. About 10% of respondents who recalled seeing or hearing advertising had used one of these resources, compared with less than five percent of respondents who did not recall seeing any advertising.

Use of these resources varied by respondents' current modes. Table 40 presents this comparison. Respondents who used transit or bike/walk to commute were most likely to have used one of these numbers or web sites; 21% of all regional train riders, 24% of bus riders, and 20% of bicyclists/walkers had contacted a web site or number. About one in twenty carpoolers/vanpoolers and the same percentage of drive alone respondents had used any regional commute information resource in the past year.

Table 40
Used Commuter Assistance Number of Website
by Respondent's Current Primary Mode (mode used 3+ days per week)

Primary Commute Mode	Used Any Website/Number	Used WMATA Website/Number	Used CC Number/Website
Train (n=186)	21%	16%	1%
Bus (n=117)	24%	16%	2%
Bike/walk (n=49)	20%	15%	0%
Carpool/vanpool (n=204)	4%	<1%	1%
Drive alone (n=1,389)	5%	3%	<1%

As shown in the third column of Table 41, use of Metro's number/web site dominated this question. Transit riders and bikers/walkers still were more likely to use these resources, but both carpoolers/vanpoolers and drive alone commuters also used them, in substantial numbers.

Commuter Connections' number and web sites were more likely to be used by respondents who were using an alternative mode at the time of the survey than by drive alone respondents, but the numbers of users were too small in all cases to draw any reliable conclusions.

Awareness of Commuter Connections Program

The "awareness" section of the questionnaire also explored respondents' awareness of the Commuter Connections program 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.

As noted earlier, seven percent of the regional population named Commuter Connections as a regional information source without being prompted with the organization's name. But when directly asked if they had heard of an organization in the Washington region called Commuter Connections, an additional 52% of respondents said they had heard of the program.

Differences Between Aware and Not-Aware Respondents – Respondents who knew of Commuter Connections differed in several respects from those who did not know about the program. Respondents who worked for large employers were more likely to know about Commuter Connections than were respondents who worked for small employers. About 48% of respondents who worked for employers with 100 or fewer employees knew of Commuter Connections, compared with 59% respondents who worked for employers with more than 100 employees.

Respondents who worked for federal agencies were more likely than were other respondents to know about Commuter Connections. Nearly two0thirds (61%) of federal agency employees said they had heard of Commuter Connections, compared with 53% of state/local government employees, 52% of respondents who worked for private firms, and 48% of respondents who worked for non-profit organizations/associations.

Respondents who had heard of Commuter Connection also were more likely to be longer distance commuters. About 62% of commuters who traveled 20 or more miles to work said they had heard of Commuter Connections, compared with only 50% of commuters who traveled shorter distances. This could be because the commute is not as much of a concern to respondents who travel short distances as to those who travel farther. But it also could indicate an impact of Commuter Connections' drive time radio advertising, which makes up a large portion of the program's total advertising.

Finally, awareness of Commuter Connections was much higher among respondents who had seen or heard commute advertising in the past six months than among those who had not seen commute advertising. As shown in Table 41, 67% of respondents who had seen or heard commute advertising said they knew of Commuter Connections, compared with only 33% of respondents who said they had not seen or heard any commute advertising. This suggests that Commuter Connections' advertising is creating an impression among those who are exposed to the ads.

Table 41
Heard of Commuter Connections
By Heard, Seen, or Read Commute Advertising

Heard/Saw Commute Ads	Heard of Commuter Connections	
	Yes	No
Yes (n=1,197)	67%	33%
No (n=920)	33%	67%

Referral Sources to Commuter Connections Program – Table 42 displays the methods by which respondents heard about Commuter Connections. More than half (53%) of respondents cited the radio as their source of information and about one in five (20%) named television. Nine percent cited newpaper article or ad and word of mouth/referrals and sign/billboard each were named by about one in twenty. Smaller percentages cited other sources, including: brochure/postcard/mail (3%), internet (2%), or employer (2%). About one in ten respondents (9%) said they didn't remember how they heard about Commuter Connections.

Table 42
Commuter Connections Program Referral Sources
(n=1,106)

Information Source	Percentage
Radio	53%
Television	20%
Newspaper ads/article	8%
Sign/billboard	5%
Word of mouth, friend, co-worker	4%
Brochure/postcard/mail	3%
Internet	2%
Employer	2%
Don't know	9%
Other *	2%

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

Awareness of Commuter Connections' Services – Lastly, respondents who knew of Commuter Connections were asked what services the organization provided. Their responses are shown in Table 43.

Table 43
Awareness of Commuter Connections Services
(n=1,107)

Commuter Connections Services	Percentage
Guaranteed Ride Home (GRH)	27%
Rideshare (carpool/vanpool) information	27%
Help finding carpool/vanpool partners	19%
Transit route/schedule information	5%
Telecommute information	1%
HOV	1%
Metrochek/SmarTrip	1%
Don't know	40%
Other *	2%

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

Respondents largely cited services that Commuter Connections actually does provide. Two in five (40%) respondents said they didn't know specific services, but almost half knew the organization offered either general rideshare information (27%) or help finding a carpool or vanpool partner (19%). About a quarter (27%) knew that Commuter Connections sponsored a GRH program. Smaller percentages said Commuter Connections offered transit route and schedule information, information that can be accessed through links on Commuter Connections' web site. One percent knew that Commuter Connections provided telecommute information.

Interest in Possible New Commuter Connections Program

Finally, several questions were included in the survey to examine commuters' interest in two potential new services that could be offered by Commuter Connections. These services include on-line ridematching and a gift card for commuters who carpool to work.

On-line Ridematching – All respondents who traveled to a work location outside their homes were asked if they would be interested in a service that allowed them to find carpool partners through an internet website. In this service, commuters who want to carpool enter information about when and where they work and a phone number or email address where they can be contacted. They also can search for other commuters who have similar travel and want to carpool. Commuters were asked how likely they would be to use such a service. The results are detailed in Table 44.

As shown about 15% expressed a serious level of interest in the service, saying they either would "definitely use" or "probably use" the service. About the same percentage (14%) said they weren't sure if they would use it or not. About three-quarters (72%) said they did not expect to use it.

Table 44
Likelihood to Use On-Line Ridematching
(n=2,098)

Likelihood to Use On-line Service	Percentage
Definitely use	6%
Probably use	9%
Maybe or maybe not use	14%
Probably not use	23%
Definitely not use	49%

Respondents who said they would "definitely not use" or "probably not use" the service were asked why they would not use it. As shown in Table 45. The majority of reasons cited were not about willingness to use the service, but rather about willingness or ability to carpool or vanpool. Fully 88% of respondents cited this type of reason. Five percent said they were concerned about the privacy of the information and three percent said they did not have access to the internet. Four percent said they did not need the service because they were already carpooling or vanpooling.

Table 45
Why Respondents Would Not Use On-Line Ridematching
(n=1,510)

Likelihood to Use On-line Service	Percentage
Already carpooling/vanpooling	4%
Not interested in carpooling/vanpooling	41%
Can't carpool or vanpool (due to personal circumstances)	37%
Commute too short	5%
Need car for work or after (flexibility)	3%
Concerned about safety of carpooling/vanpooling	2%
Concerned about information privacy	5%
No access to internet	3%
Other	4%

Respondents who said they would consider using the service were asked what types of personal contact information they would be willing to provide on-line. Table 46 lists the results for this question. Respondents were most willing to provide an email address (59%) or a postal address (25%). Only 14% said they were willing to provide a phone number. One quarter (25%) said they were not willing to provide any of these types of information on-line.

Table 46
Contact Information Willing to Provide For On-Line Ridematching
(n=588)

Likelihood to Use On-line Service	Percentage
Email address	59%
Postal address	25%
Phone number	14%
Not willing to provide any of these types of information	25%

Gift Card for Carpooling – A final set of questions was asked about respondents' interest in a gift card provided to carpoolers. Commuters who were not currently carpooling were asked how likely they would be to try carpooling if they could receive a monthly gift card for purchases at area merchants for doing so. Respondents were first asked their interest in a $25 per month car. The results for this question are presented in Table 47.

Table 47
Likelihood to Try Carpooling to Receive $25 Gift Card
(n=1,480)

Likelihood to Try Carpooling	Percentage
Definitely try	5%
Probably try	10%
Maybe or maybe not try	14%
Probably not try	21%
Definitely not try	50%

About 15% said they would serious consider trying carpooling; they would either "definitely try" or "probably try" carpooling. About the same percentage (14%) said they weren't sure if they would try carpooling to receive the gift card. The remaining 71% said they were not interested.
Respondents who said they would "maybe or maybe not try," "probably not try" or "definitely not try" carpooling to receive the $25 gift card were asked their interest if the gift card was $50 per month. Ta-

ble 48 presents the results for this question. In this case, respondents who said they were definitely or probably interested in a $25 card were added to the base for this question.

When the card value was $50, about one in twenty commuters who were not currently carpooling said they would "definitely" or "probably" try carpooling to receive the card. About 15% said they weren't sure if they would try carpooling to receive the gift card. The remaining 67% said they were not interested.

Table 48
Likelihood to Try Carpooling to Receive $50 Gift Card
(n=1,470)

Likelihood to Try Carpooling	Percentage
Definitely try	5%
Probably try	14%
Maybe or maybe not try	14%
Probably not try	18%
Definitely not try	49%

SECTION 4 – SUMMARY AND CONCLUSIONS

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

A primary function of the SOC survey was to examine regional trends in commute behavior, awareness, and attitudes. A second objective of the SOC survey was to collect data to support the upcoming TERM evaluation, scheduled to be performed in the June 2005. Additional analysis of SOC data is underway for this purpose and results of these analyses will be included in a TERM evaluation report to be produced in June 2005.

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

- Commute patterns
- Telecommuting
- Awareness of commute advertising
- Awareness of commute assistance resources

Commute Patterns

Drive alone continues to account for the highest share of regional commute travel.

- Drive alone was the most popular commute mode in the Washington metropolitan region. About 71.3% of weekly commute trips made to worksites outside the home were made by driving alone.
- Weekly trips made by transit accounted for about 18% of total weekly commute trips. Train was use for 11.8% of weekly trips and bus was used for 5.7%. Carpool and vanpool were used to 8.8% of weekly commute trips.
- About a quarter (27.5%) of regional commuters said they used an alternative mode (carpool, vanpool, public bus, buspool, subway, commuter rail, bicycle, or walk) as their primary mode, that is, three or more days per week for commuting. An additional 3.8% of commuters used an alternative mode one or two days per week, resulting in more than three in ten (31.3%) of commuters using an alternative at least once per week.
- The most popular alternative mode was train, which was used by 11.3% of respondents as a primary mode, three or more days per week. An additional 1.4% of commuters said they used the train one or two days per week.
- Bus was the primary commute mode for 5.5% of respondents. An addition 0.6% rode the bus to work as an occasional or secondary mode.
- Carpooling/vanpooling was used by 8.3% of commuters three or more days per week and 1.6% used it one or two days per week. The majority of carpoolers continued to use a “traditional” form of carpooling, with the same partner(s) all the time. A small percentage of carpoolers/vanpoolers “casual” carpooled (slug).

Regional commuters willing to try new alternative modes.

- Approximately one in five (19%) respondents said they had used or tried any alternative mode, other than one they were currently using, within the two years prior to the survey. Train was the mode mentioned most often; 57% of respondents said they had used or tried the train. One in five respondents had tried the bus (19%) or had tried carpooling (19%). These were essentially the same percentages of trial and/or temporary use of alternatives as were observed in 2004.

A large portion of commuters who use alternative modes are long-time users of these modes.

- More than half (57%) of respondents who were using an alternative mode at the time of the survey said they had used these modes for more than two years. But about a quarter (23%) of the respondents said they started using their current alternative mode within the past year. Commuters who used alternative modes had been using the modes for an average of 69 months. This is a considerably longer duration than had been generally assumed as the duration of an alternative mode arrangement.

Commute lengths about the same as in 2004.

- Respondents traveled on average of 16.3 miles one-way to work, about the same as the 16.5 miles distance measured in the 2004 SOC survey.

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

- About three in ten respondents (31%) said their commute was more difficult than it was a year ago. The primary reason for it being worse was that the route was more congested now (79%), but eight percent said the commute was more difficult due to construction along the route and five percent said it was because the train was more crowded.
- About 12% of respondents said their commute was easier than last year. The primary reasons were that the trip was shorter (37%), took less time (36%), or was less congested (24%). But six percent said the commute was easier because they started using an alternative mode and three percent said they improved their commute by using HOV lanes.

Telecommuting

About one in eight regional commuters telecommutes, but potential exists for additional telecommuting growth.

- About 12.8% of total survey respondents said they telecommuted at least occasionally. But telecommuters accounted for 13.2% of regional commuters, workers who were not self-employed and would otherwise travel to a worksite outside their homes if not telecommuting.
- The percentage of regional telecommuting, 13.2% of regional commuters is approximately the same as the 2004 level of 12.8%.
- An additional 21% of commuters “could and would” telecommute if given the opportunity. These respondents said their job responsibilities would allow them to telecommute and they would like

to telecommute. About two-thirds of these interested respondents said they would like to telecommute "regularly," while one-third would like to telecommute "occasionally."

Telecommuting is concentrated in certain demographic and employment groups.

- Telecommuters were statistically more likely to be: male, of white ethnic background, with incomes greater than $60,000.
- Telecommuters also were statistically more likely to be: employees of non-profit organizations or private employers; employers with 251 to 999 employees; and workers employed in technical, professional, and executive/managerial occupations.
- The potential for additional telecommuting seems to be primarily in the sub-groups in which telecommuting is now common. But high latent potential does exist in two sizeable groups in which telecommuting is now under the average: employees working for large (100 or more employees) organizations and Federal agency workers. Significant telecommute potential exists for Federal agency workers, even though the percentage of Federal workers who telecommute has increased from about 12% of total Federal workers in 2004 to 14% in 2005.

Most telecommuters telecommute from home.

- The overwhelming majority of telecommuters (95%) telecommuted exclusively from home. The remaining five percent telecommuted from a satellite office provided by an employer, a telework center, or both home and other location.
- Respondents who telecommuted from a location outside the home traveled on average 11 miles to those locations. The majority drove alone to these locations.

The average frequency of telecommuting is slightly less than in 2004.

- Telecommuters telecommuted about 1.2 days per week on average. This was a slight decrease in telecommute frequency from the 1.3 days per week estimated in the 2004 survey.

Telecommuters get information on telecommuting from a variety of sources.

- Nearly two-thirds of the telecommuters surveyed said they obtained information on telecommuting from a "special program at work." About one in five said they "initiated request on my own" and six percent said they heard from "word of mouth."
- About one five percent of telecommuters surveyed said they received telecommute information directly from Commuter Connections or MWCOG, either from the Telework Resources Center or an MWCOG website. An additional one percent said they learned about telecommuting through advertising. Although this was not necessarily advertising from Commuter Connections, COG has advertised widely about telecommuting, so this response could indicate some additional telecommuters who learned about telecommuting from Commuter Connections' outreach. A portion of "special program at work" also could be the result of Commuter Connections' outreach and assistance to employers.

Awareness of Commute Advertising

Commute information advertising appears to be widely recognized.

- Over half (57%) of respondents said they had seen, heard, or read advertising for commuting in the six months prior to the survey and two-thirds of these respondents could cite a specific advertising message. This was approximately the same result as was observed in the 2004 survey.
- Recall of both general rideshare messages, such as [ridesharing] will "save time" or "help the environment," and messages about commute assistance services, such as GRH or carpool/vanpool matching assistance, were approximately the same as in 2004. A large portion of the messages that respondents recalled focused on Commuter Connections programs.
- Most (64%) of the respondents who had heard ads could not name the sponsor, but about 13% of respondents recalled Commuter Connections as the sponsor of advertising and 11% recalled WMATA as a sponsor.

Commute advertising also appears to be having an effect on commuters' consideration of travel options.

- About 21% of respondents who had seen advertising said they were more likely to consider ridesharing or public transportation after seeing or hearing the advertising.
- The most persuasive messages appealed to commuters' interest in saving time, reducing stress, or reducing congestion. Respondents who were using alternative modes during the survey week were more likely to be influenced by the advertising than were commuters who drove alone.
- About one in five respondents who said they were likely to consider ridesharing or public transportation for commuting had taken some action to try to change their commute; 10% said they sought information about commuting on the internet, from a family member or co-worker, or from a regoinal commute service organization and eight percent said they tried or started using an alternative mode after hearing the ads. These respondents cormprised slighly less than two percent of all regional commuters.
- More than two-thirds (71%) of respondents who had taken some action said the advertising they saw or heard encouraged the action. And 57% of respondents who took an action were driving alone at that time. This suggests that the advertising is acquainting drive alone commuters with other commuting opportunities and encouraging them to seek more information on these options.
- One-third of respondents said they recalled recent ads for telecommuting. About one in five (18%) of these respondents said they were more likely to consider telecommuting and two percent said they did try telecommuting.
- Nearly half of the commuters surveyed said they had heard or seen ads for GRH. Five percent of these commuters registered for GRH and another two percent sought more information about GRH.
- About 45% of respondents said they had heard or seen ads for HOV lanes. One in ten of these respondents started using an HOV lane for commuting.

Awareness of Commute Assistance Resources

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

- Nearly half (45%) of respondents said they knew of a telephone number or web site they could use to obtain commute information. This was about the same level as knew of these resouces in 2004 (46%). About 16% of respondents could name a specific number or web site.
- About 11% of respondents said they had used a commuter assistance number of web site in the past year. This was the same as said in 2004 that they had used a number/web site.
- Respondents who recalled commute ads were slightly more likely to have used a commute number or web site than those who did not recall advertising. About 10% of respondents who recalled seeing or hearing advertising had used one of these resources, compared with about five percent of respondents who did not recall any ads.
- Respondents who used train (21%), bus (24%), or bike/walk (20%) were more likely to have used one of these numbers or web sites than were either carpoolers/vanpoolers (4%) or drive alone respondents (5%).

Commuter Connections has high name and service recognition.

- Nearly six in ten (59%) regional commuters said they had heard of an organization in the Washington region called Commuter Connections.
- Respondents were more likely to know about Commuter Connections if they worked for a large employer or for a federal government agency. Awareness of Commuter Connections also was much higher among respondents who had seen or heard commute ads (67% recognition) than among those who did not recall any commute advertising (33% recognition).
- When asked about Commuter Connections services, respondents largely cited services that Commuter Connections actually does provide. About 40% said they didn't know specific services, but 27% knew that Commuter Connections sponsored a GRH program and more than four in ten knew the organization offered either general rideshare information (27%) or help finding a carpool or vanpool partner (19%).
- Tests of two additional carpool/vanpool services showed modest commuter interest. About 15% of commuters said they would "definitely use" or "probably use" an on-line ridematching service. Of respondents who were not interested in using the service, about 88% said they would not use the service because they were not interested in carpooling or vanpooling.
- Finally, about 15% of commuters who were not currently carpooling said they would consider carpooling if they were offered a $25 per month gift card that could be used at local merchants. When a gift card value of $50 was offered, the percentage of commuters who said they would "definitely try" or "probably try" carpooling increased to 19%.

APPENDICES

Appendix A – Survey Data Expansion

Appendix B – Final Dialing Disposition

Appendix C – Survey Questionnaire

Appendix D – Instructions and Definitions of Terms

Appendix E – Comparison of Mini-Household Results with Results of 2004 SOC and 2001 SOC Surveys

APPENDIX A – SURVEY DATA EXPANSION

Survey responses from the Greater Washington DC Mini-Household Survey 2005 were expanded numerically to align the sampled survey results with published, employment information for the study area. The process developed for the 12-area, Washington, DC metropolitan region is described below in detail.

Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics (LAUS) for January 2005 were used to expand responses to employed persons. This methodology was adopted over the multi-stepped methodology developed in 2001 for the Metropolitan Washington Council of Governments' State of Commute Survey, as a simpler, more direct approach to expanding results to known, published statistics. The main advantage to the methodology lies in the fact that estimates of working households are not dependent upon survey data. The use of the LAUS method was suggested and approved by COG in 2004.

Table A-1 – Estimate of Workers by Survey Area

Survey Area	Estimated Employed Workers Totals from Bureau of Labor Statistics Local Area Unemployment Statistics (LAUS) Program (January 2005)	Working HH Sample (# Surveyed)	Rounded Worker Expansion Factor	Total Worker Estimates
Alexandria City, VA	79,876	180	444	79,920
Arlington Co., VA	117,323	180	652	117,360
Calvert Co., MD	43,540	180	242	43,560
Charles Co., MD	68,921	180	383	68,940
District of Columbia	275,987	180	1533	275,940
Fairfax Co., VA	559,557	182	3074	559,468
Frederick Co., MD	114,861	180	638	114,840
Loudoun Co., VA	126,739	180	704	126,720
Montgomery Co., MD	492,705	181	2722	492,682
Prince George's, MD	428,935	180	2383	428,940
Prince William Co., VA	174,773	180	971	174,780
Stafford Co., VA	57,236	180	318	57,240
Total	2,540,453	2,163		2,540,390

Estimates of employed workers were obtained from BLS for each jurisdiction in the study area for January 2005. This timeframe was chosen to approximate the survey period. Dividing the BLS estimate by the number of interviews yields the expansion factor by jurisdiction. Only the integer portion of the expansion factor was retained to allow consistent cross-footing during analysis. The resulting control totals by jurisdiction differ only slightly from the estimate provided by BLS. For example in Alexandria City, VA, the BLS estimate of 79,876 workers is divided by 180 surveys to obtain a representation of

444 workers per complete survey. When 444 is multiplied by 180 surveys, the resulting estimate of 79,920 workers is produced for Alexandria City, VA.

The expansion factors allow for the proper representation of workers in each geographical area when analyzing the survey results. For example, without the expansion factor, the final estimated 43,560 workers in Calvert County would have the same representation as the estimated 559,468 workers in Fairfax County. By using the expansion factor shown in the table above for each sub-area, the number of workers has been adjusted so that each worker is equally represented within the region.

STATISTICAL DISTRIBUTIONAL COMPARISON BETWEEN SAMPLE AND KNOWN HOUSEHOLD DISTRIBUTIONS

To be consistent with the previous analysis for the State of the Commute Surveys completed in 2001 and 2004, demographic variables were compared with published statistics. This was particularly important for the District of Columbia, where the survey distribution of ethnicity was shown to be skewed. The population distribution from the U.S. Census Bureau, Census 2000 Redistricting Data (P.L. 94-171) Summary File, Table 1 "Population by Race and Hispanic or Latino Origin for 18 Years and Over" was used for the bias adjustment. Although not an identical match, the 18 years and over population data allowed an acceptable comparison for workers 16 years and over from the survey data.

The method used for adjusting the ethnicity results from the survey is shown in Table A-2. First, the 8 refusals (4.4%) in the ethnic distribution of the 180 District of Columbia households were redistributed in the same proportion as the valid percent.

Table A-2 – Bias Adjustment Factor for District of Columbia

Q83/Q84. Ethnic Background	Distribution of Ethnicity From 2005 Survey	Distribution of Ethnicity From 2000 Census	Bias Adjusted Distribution of Workers	Number of Survey Responses	Bias Adjusted Factor
Hispanic	7.6	7.3	20,147	14	1,439
White	52.9	31.8	87,764	94	934
African-American	32.6	55.7	153,725	60	2,562
Other	6.9	5.2	14,351	12	1,196
Total	100.0	100.0	275,987	180	

Next, the distribution from the 2000 Census, "Population by Race and Hispanic or Latino Origin for 18 Years and Over" was applied to the survey responses to adjust the expansion factor (1,533) within the District of Columbia. Multiplying the percentage distribution of ethnicity from the 2000 Census by the total number of workers, 275,987 for District of Columbia, resulted in the bias adjusted distribution of workers. Dividing the number of workers in each ethnic category by the number of survey responses in the same category resulted in the bias adjusted expansion factor.

For example, to adjust the number of Hispanic households surveyed to reflect the 2000 Census race distribution, the following formula is followed: .073 * 275,987 = 20,147. This number is divided by the number of survey responses (plus the redistribution of non-response); for Hispanic, 14 responses. Once again, the integer portion of the expansion factor is used. Now, instead of each working household rep-

resenting an equal weight within the District of Columbia, the working households are redistributed to more accurately reflect the ethnicity of the area. The same distribution is used to adjust workers within the geographic sub-areas.

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-3 shows the level of confidence for each of these geographic divisions for the State of the Commute 2005 survey sample. In addition, the level of confidence has been calculated for several other, non-geographic key statistics sub-populations of interest in the study.

Table A-3 – Level of Confidence for Analysis

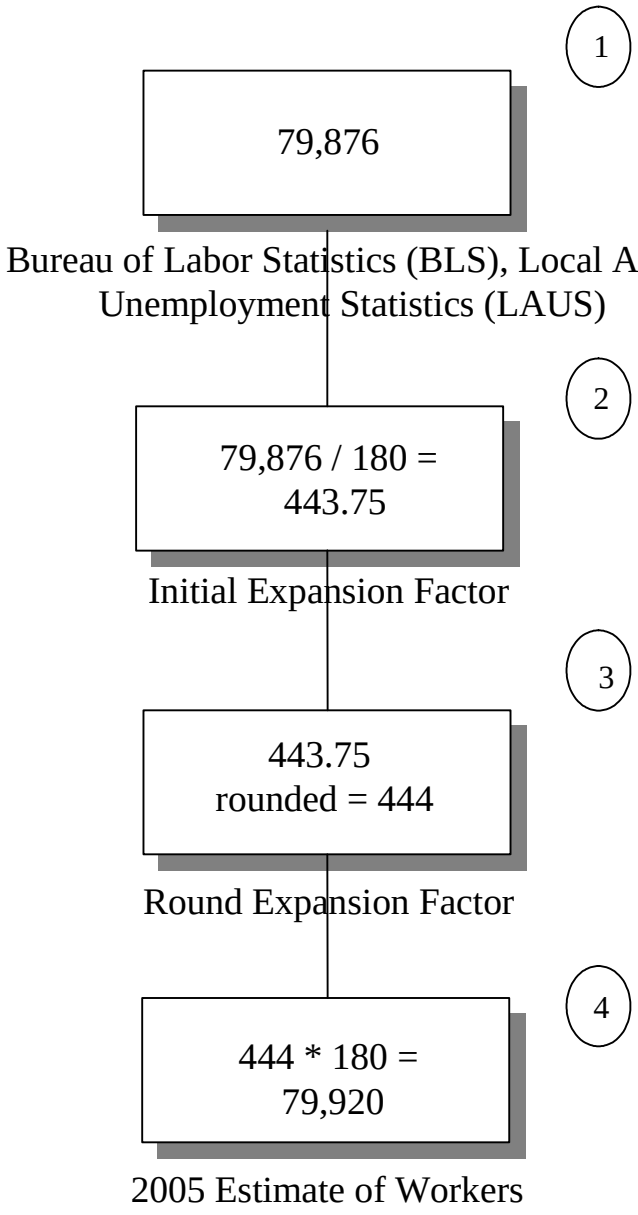
Sub-Area or Sub-Population	Sample Size	Level of Confidence
Geographic Sub-Areas		
Study Region – Twelve Areas	2,163	95% ± 2.1%
Study Portion of Virginia	1,082	95% ± 3.0%
Study Portion of Maryland	901	95% ± 3.3%
District of Columbia	180	95% ± 7.3.0%
Individual County or City Level	180	95% ± 7.3%
Sub-Area or Sub-Population	**Sample Size**	**Level of Confidence**
Sub-Populations		
Telecommuters	285	95% ± 5.8%
Carpoolers (with casual)/Vanpoolers	237	95% ± 6.4%
Transit Users	331	95% ± 5.4%
Bike Users or Walkers	59	95% ± 12.8%

SUMMARY

The survey data have been weighted to reflect the number of workers within the geographic areas of the study. These expansion factors permit the proper influence of each geographic area to be included when discussing the study area as a whole or by state. Expansion factors within the District of Columbia were adjusted for race bias in sampling.

EXPANSION FOR WORKING HOUSEHOLDS

Example: Alexandria City, VA



[1] Estimate of employment January, 2005

[2] Initial expansion factor per Washington DC Mini-Household Survey

[3] Rounded expansion factor = 444

[4] Final Estimate of Workers in Alexandria City, VA

APPENDIX B – STATE OF THE COMMUTE 2004
FINAL DIALING DISPOSITION

Washington, D.C. Mini Household Survey
Dialing Results, Spring 2005

	English		Spanish		Total	
Call Result	**No.**	**%**	**No.**	**%**	**No.**	**%**
Completed interviews	2,079	8.6%	84	31.9%	2,163	8.9%
Answering machine	3,709	15.4%	84	31.9%	3,793	15.6%
Refusals	3,867	16.1%	10	3.8%	3,877	15.9%
Callbacks	641	2.7%	7	2.7%	648	2.7%
No answer	3,752	15.6%	14	5.3%	3,766	15.5%
Number not in service	2,901	12.1%	4	1.5%	2,905	11.9%
Business number	3,241	13.5%	3	1.1%	3,244	13.3%
Spanish callbacks	19	0.1%	0	0.0%	19	0.1%
Other language	212	0.9%	18	6.8%	230	0.9%
Busy number	1,389	5.8%	8	3.0%	1,397	5.7%
Never available	82	0.3%	1	0.4%	83	0.3%
Blocked number	824	3.4%	1	0.4%	825	3.4%
Quota met for county	194	0.8%	11	4.2%	205	0.8%
No workers in HH	882	3.7%	14	5.3%	896	3.7%
DK/Ref employment status	3	0.0%	0	0.0%	3	0.0%
Live outside area	56	0.2%	2	0.8%	58	0.2%
Can't get work schedule	3	0.0%	0	0.0%	3	0.0%
Mid-term terminates	193	0.8%	2	0.8%	195	0.8%
Total	**24,047**	**100.0%**	**263**	**100.0%**	**24,310**	**100.0%**

Total Dialings: 75,468
Average Number of Dialings per Complete: 34.9

Disposition by Jurisdiction Table

Final Disposition	Alexandria City	Arlington	Calvert	Charles	District of Columbia	Fairfax County	Frederick	Loudoun	Montgomery	Prince George's	Prince William	Stafford	Total
LIVES													
Answering Machine	708	317	315	240	343	122	217	262	265	450	257	298	3,794
No Answer	567	379	223	228	569	161	225	257	295	389	195	279	3,767
Call Backs	160	28	57	34	70	36	32	41	50	86	31	38	663
Busy	210	138	94	78	138	57	109	126	86	178	88	95	1,397
Total Lives	1,645	862	689	580	1,120	376	583	686	696	1,103	571	710	9,621
DEADS													
Not in Service	540	271	180	254	315	106	150	161	172	346	203	207	2,905
Business	491	249	229	232	384	126	237	270	266	315	187	257	3,243
Refusals	461	248	397	322	251	145	361	360	304	358	303	363	3,873
Other Language	55	35	5	9	10	9	7	19	26	31	16	7	229
Terminate	307	77	146	100	123	38	99	79	93	135	67	102	1,366
Never Available	10	4	8	8	4	3	8	12	5	3	9	9	83
Blocked Number	66	30	114	117	85	19	58	67	49	153	14	53	825
Total Deads	1,930	914	1,079	1,042	1,172	446	920	968	915	1,341	799	998	12,524
Total Completes	180	180	180	180	180	182	180	180	181	180	180	180	2,163
Total Sample Used	3,755	1,956	1,948	1,802	2,472	1,004	1,683	1,834	1,792	2,624	1,550	1,888	24,308

APPENDIX C – SURVEY QUESTIONNAIRE

Mini Household Survey 2005

Final Questionnaire – 1/5/05

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)**

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 **(ASK QS2)**

S2. How many persons live in your home? Please count yourself, family and friends, and anyone who may be unrelated to you such as live-in housekeepers or boarders.
_____ persons
88. Don't know
99. Refuse

S3. In what county (or Independent City) do you live now? **(DO NOT READ)**
1. Alexandria City, VA
2. Arlington County, VA
3. Calvert County, MD
4. Charles County, MD
5. Washington, DC (District of Columbia)
6. Fairfax County/City of Falls Church/City of Fairfax, VA
7. Frederick County, MD
8. Loudoun County, VA
9. Montgomery County, MD
10. Prince George's County, MD
11. Prince William County/City of Manassas/City of Manassas Park, VA
12. Stafford County, VA
13. Other (SPECIFY) _____
88. Don't know
99. Refused

RECORD INFORMATION AND THEN, THANK & 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 **(GO BACK TO QS2)**

Start of Interview for Qualified Respondents

Q1. What is your employment status 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)**

88 Don't know **(THANK & TERMINATE)**

99 Refuse **(THANK & TERMINATE)**

QUOTA SCREENER - NEED MINIMUM OF 167 IN EACH OF 12 AREAS, SAMPLE 2,004
MAXIMUM OF 200 IN EACH OF 12 AREAS, SAMPLE 2,400

Q2. In what county (or Independent City) do you live now? **(DO NOT READ)**

1. Alexandria City, VA
2. Arlington County, VA
3. Calvert County, MD
4. Charles County, MD
5. Washington, DC (District of Columbia)
6. Fairfax County/City of Falls Church/City of Fairfax, VA
7. Frederick County, MD
8. Loudoun County, VA
9. Montgomery County, MD
10. Prince George's County, MD
11. Prince William County/City of Manassas/City of Manassas Park, VA
12. Stafford County, VA
13. Other (SPECIFY) _____

88. Don't know
99. Refused

} **(THANK & TERMINATE)**

Q3. 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.

Q4. First, in a TYPICAL week, how many days are you assigned to work?
_____ days ____ "0", not currently working (**GO BACK TO QS5)**

Q5. How many of those days are weekdays (Monday-Friday)?
_____ days ____ "0", (**CODE AS WKALL, THEN SKIP TO Q30)**

Q6. And how many weekdays do you commute to a work location outside your home? **(IFRESPONDENT SAYS, "VARIES BY WEEK" OR "DON'T KNOW", PROMPT** "What would you say would be most typical?" **IF RESPONDENT STILL SAYS "DON'T KNOW," CODE AS 8)**

10. None **(SKIP TO Q7)**
1. One
2. Two
3. Three
4. Four
5. Five
8. Don't know **(SKIP TO Q40)**
9. Refuse **(SKIP TO Q40)**

SKIP TO Q10

Q7. 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)**

Q8. Are you self-employed with your primary work location at home?

1 Yes **(PROGRAMMER, CODE AS HOMEALL) (SKIP TO Q40)**
2 No **(CONTINUE)**

Q9. Do you telecommute every weekday you work?

1 Yes **(PROGRAMMER, CODE AS TELEALL, SKIP TO Q34)**
2 No **(SPECIFY SITUATION, THEN THANK AND TERMINATE)**

Q10. 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 Q12)**

Q11. What type of schedule do you use?

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. other (SPECIFY) _____

Q12. Now I want to ask you about telecommuting, also called teleworking. For purposes of this survey, "telecommuters" are defined as "wage and salary employees who at least occasionally work at home or at a telework or satellite center during an entire work day, instead of traveling to their regular work place." Based on this definition, are you a telecommuter?

1. yes **(SKIP TO Q16)**
2. no
9. DK/Ref

Q13. Do you at least occasionally work at home or at a location other than your central work place during your normal work hours? (**IF ASKED**: Normal work hours means the hours that you work, which may or may not be the normal business hours of your employer.)

1. yes
2. no (SKIP TO Q14)
9. DK/Ref (SKIP TO Q14)

Q13a. On these days, where do you typically work? (DO NOT READ RESPONSES)

1. home
2. client/customer's office
3. satellite office, other office of my employer
4. community/business location (e.g., library, Kinkos, business center)
5. other _____
9. DK/Ref

IF Q13 = 1, CODE Q14 = 1, THEN SKIP TO Q16

Q14. 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 Q17)**
9. DK/Ref **(SKIP TO Q17)**

Q15. 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

SKIP TO Q17

Q16. How often do you usually telecommute? **(DO NOT READ)**

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

(PROGRAMMER: IF TELEALL OR HOMEALL FROM Q8, Q9, AUTO FILL Q17 & DON'T ASK)

Q17. 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 Q11 = 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 Q16 = 3, 4, OR 5 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 Q17 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**.**

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

(IF Q17 = 5, 6, 7, CONTINUE, OTHERWISE, SKIP TO Q19)
(IF RESPONDENT WAS ASKED IN Q17 ABOUT NUMBER OF PEOPLE IN THE CAR, TRUCK, OR VAN, CODE REPORTED NUMBER OF OCCUPANTS IN Q18, DO NOT ASK Q18)

Q18. Including yourself, how many people usually ride in your <CARPOOL/VANPOOL FROM Q17>? (If more than 1 answer in Q17, select 1 using this priority: vanpool, carpool, casual carpooling/slug.)

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

(If Q17 = 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or 15 ASK ABOUT MOST COMMON ALTERNATIVE <MODE Q17>. OTHERWISE, SKIP TO Q22)

Q19. How long have you been using <MODE Q17> to commute to work? **(DO NOT READ) (ADD TO BRIEFING DOCUMENT INSTUCTIONS IF RESPONDENT SAYS, "DO YOU MEAN HOW LONG HAVE I BEEN USING THIS MODE OR HOW LONG I'VE BEEN IN THIS PARTICULAR ARRANGEMENT," INTERVIEW SHOULD SAY, "USING THIS TYPE OF TRANSPORTATION")**

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

Q20. Before starting to <MODE Q17> to work, what type or types of transportation did you use to get to work? (**ALLOW MULTIPLE RESPONSES)**

(IF Q11 = 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 Q16 = 3, 4, OR 5 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, taxi
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 always used <MODE Q17>
20. not working then, not in DC area then
99. don't know, refused

Q21. What were the reasons you began using <MODE Q17>? **(DO NOT READ; CHECK ALL THAT APPLY) (Probe for the 3 most important and only record 3)**

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

Commute Services/Programs
24. new option that became available
25. special program at work
26. pressure or encouragement from employer
27. GRH (formal or informal programs)
28. Ozone action/Code Red days
29. no parking, parking expense
30. found carpool partner
31. NuRide (VA carpool incentive)
32. Metrochek, SmartTrip, transit subsidy, vanpool subsidy
33. Commuter Choice Maryland

Information/Promotion
34. advertising
35. initiated request/looked for information on my own
36. info. from Commuter Connections/Council of Governments/COG/800 number
37. Commuter Connections Website
38. other Website
39. word of mouth/recommendation
40. information from transit agency
41. saw highway sign
42. yellow pages
43. Other _____
88. Don't know
99. Refuse

SKIP TO Q23

Q22. In the past two years, have you used or tried any <u>other</u> type of transportation between home and work, OTHER than driving alone, taxi, or motorcycle?

1. yes **(SKIP TO Q24)**
2. no **(SKIP TO Q28)**

Q23. In the past two years, have you used or tried any <u>other</u> type of transportation between home and work, OTHER than driving alone, taxi, or motorcycle, that you've not already mentioned?

1. yes
2. no **(SKIP TO Q28)**

Q24. What was that type of transportation? (DO NOT READ; CHECK ALL THAT APPLY) (NOTE: DRIVE ALONE IS NOT A VALID ANSWER. PROBE FOR OTHER ANSWER. IF DRIVE ALONE, TAXI, OR MOTORCYCLE ARE ONLY ANSWERS, SNAP BACK AND CHANGE Q22/Q23 TO "NO.") (IF Q24 = Q17 ANY DAY OR Q20, INTERVIEWER PROMPT, "YOU ALREADY MENTIONED <MODE Q17, Q20>, DID YOU TRY ANY OTHER TYPE OF TRANSPORTATION?")

1. compressed work schedule day off
2. telecommute
3. drive alone, taxi (NOT VALID ANSWER)
4. motorcycle (NOT VALID ANSWER)
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. N/A
20. N/A
99. don't know, refused

Q25. How long did you use <Q24 mode(s)> ? **(DO NOT READ)**
_____ months **(CONVERT YEARS TO MONTHS)**

0	less than one month
888	occasionally (tried one, emergency use)
999	still using **(ASK Q26)**
-997	Don't know

SET Q24LONG = Q25, LONGEST DURATION
IF Q25 = STILL USING FOR ANY MODE, THAT MODE = Q24 LONG

SKIP TO Q27

Q26. How many days would you say you now < Q24LONG> in a typical **month**?
_____ DAYS PER MONTH

Q27. What prompted you to use or try this type of transportation? **(DO NOT READ; CHECK ALL THAT APPLY) (Probe for the 3 most important and only record 3)**

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

Commute Services/Programs
24. new option that became available
25. special program at work
26. pressure or encouragement from employer
27. GRH (formal or informal programs)
28. Ozone action/Code Red days
29. no parking, parking expense
30. found carpool partner
31. NuRide (VA carpool incentive)
32. Metrochek, SmartTrip, transit subsidy, vanpool subsidy
33. Commuter Choice Maryland

Information/Promotion
34. advertising
35. initiated request/looked for information on my own
36. info. from Commuter Connections/Council of Governments/COG/800 number
37. Commuter Connections Website
38. other Website
39. word of mouth/recommendation
40. information from transit agency
41. saw highway sign
42. yellow pages
43. Other _____
88. Don't know
99. Refuse

IF Q24 = Q17, ANY DAY, ANY MODE, OR Q25 = STILL USING, SKIP TO Q29

Q28. Why didn't you continue < Q24LONG>? **(DO NOT READ; CHECK ALL THAT APPLY)**

1. too inconvenient
2. cost too much
3. took too much time
4. safety concerns
5. job changes - job, work site, schedule
6. need vehicle during or after work
7. vehicle became unavailable/unreliable
8. moved home location
9. didn't like pool partners
10. new/changes in employer program
11. bus or rail schedule or route change
12. child-related activities (e.g., school)
13. circumstantial (e.g., car became available)
14. used only temporarily (e.g., car in shop)
15. weather related
16. parking issue
17. lost carpool partner
18. bought a hybrid or compressed natural gas (CNG) vehicle
19. Other (SPECIFY) _____

Q29. How long is your typical daily commute? How many miles is it one-way from your home to your work location? **(IF LESS THAN 1 MILE, RECORD AS "1")**

Number of miles _____
888. Don't know
999. Refuse

Q30. Would you say your commute is easier, more difficult, or about the same now as it was one year ago?

1. easier **(ASK Q31)**
2. more difficult **(ASK Q32)**
3. about the same (**SKIP TO Q33)**
4. not applicable **(SKIP TO Q33)**
9. DK/Ref **(SKIP TO Q33)**

Q31. 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. other _____
19. refused/Don't know

Q32. 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. other _____
9. DK/Ref.

Q33. Have you changed your work or home location in the last year?

1 Yes
2 No
9 DK/Ref.

IF WKALL, SKIP TO Q40

TELECOMMUTE

IF Q12 = 2 OR 9, AND Q17 NE 2, ANY DAY, SKIP TO Q40 (NON-TELECOMMUTERS)

Q34. Now I have a few more questions about telecommuting. How long have you been telecommuting?
_____ months **(CONVERT YEARS TO MONTHS)**
999. Don't know/refuse

IF TELEALL, SKIP TO Q39

Q35. 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 Q39)**
2. Telework Center **(ENTER NUMBER FROM LIST) _____ (IF RESPONDENT DOES NOT KNOW LOCATION, ASK STATE _____)**
3. Both home and Telework Center **(ENTER TELEWORK CENTERS NUMBER FROM LIST)_____ (IF RESPONDENT DOES NOT KNOW LOCATION, ASK STATE _____)**
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 **(WHAT STATE)** _____
11. Both home and executive office suites **(IN WHAT STATE IS EXECUTIVE OFFICE SUITE)** _____
12. other location **(SPECIFY)** _____

Maryland
1. Bowie State University Telecommuting Center (White Oak)
2. Frederick Telework Center
3. Hagerstown Telework Center
4. Laurel Lakes Telecommuting Center
5. Calvert Telecommuting Center (Prince Frederick Telecommuting)
6. Waldorf Telecommuting Center (Charles County)

Virginia
7. GMU (George Mason University) Fairfax Telework and Training Center
8. Fredericksburg Regional Telework Center (Fredericksburg)
9. GMU Herndon Telework and Training Center
10. Manassas Telecommuting Center
11. Fredericksburg Regional Telework Center (Stafford)
12. GMU Sterling Telework and Training Center
13. Shenandoah Valley Telecommuting Center (NetTech Center of Winchester)
14. Woodbridge Telework Center

Washington, D.C.
15. Executive Office Club

West Virginia
16. Jefferson County TeleCenter (BIZTECH, The Telecenter at the Business and Technology Community Center of Jefferson County)

99. Don't know **(ASK STATE)**

(IF Q35 = 3, 5, 7, 9, OR 11, CONTINUE, OTHERWISE, SKIP TO Q38)

Q36. How many days per week, on average, do you telecommute from the location outside your home?
_____ days per week

Q37. How many miles is it one way from your home to this location? **(IF LESS THAN ONE MILE, RECORD "1")**
_____ miles (no decimals)

Q38. And how do you get from home to this location?
1 N/A
2 N/A
3. drive alone, taxi
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. N/A
20. N/A
99. DK/Ref

Q39. How did you find out about telecommuting? **(DO NOT READ)**

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

AWARENESS OF COMMUTE PROGRAMS/SERVICES

Now, I want to ask about information you might have seen or heard about commuting or traveling to work.

Q40. Have you heard, seen, or read any advertising about commuting in the past 6 months?

1. yes
2. no **(SKIP TO Q50)**
9. DK/Ref **(SKIP TO Q50)**

Q41. What messages do you recall from this advertising? **(DON'T READ, ACCEPT MULTIPLE RESPONSES)**

1. none **(SKIP TO Q50)**
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) (ASK Q56)
12. employer would give me MetroChek benefits, SmartTrip 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. Springfield interchange reconstruction
21. Wilson bridge reconstruction, Bridge Bucks
22. use the bus or train, use Metrobus
23. other (SPECIFY) _____

99. DK/Ref. (SKIP TO Q50)

Q42. 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. other (specify) _____
99. DK/Ref.

Q43. And where did you see, hear, or read this advertisement? **(DO NOT READ, ACCEPT MULTIPLE RESPONSES)**

1. Commuter Connections website
2. other website, internet
3. radio
4. TV
5. postcard in mail
6. newspaper
7. other (_____)
9. DK/Ref.

IF HOMEALL, SKIP TO Q60
IF WKALL, SKIP TO Q60

Attitude changes/actions taken after hearing ads

Q44. After seeing or hearing this advertising, were you more likely to consider ridesharing or public transportation?

1. yes
2. no **(SKIP TO Q50)**
9. DK/Ref **(SKIP TO Q50)**

Q45. After seeing or hearing this advertising, did you take any actions to try to change how you commute? **IF YES…** "What actions did you take? **(DO NOT READ)**

No action
1. didn't take any action **(SKIP TO Q50)**

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 Metrochek or SmartTrip
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 Q50)**
99. DK/Ref **(SKIP TO Q50)**

Q46. What were the reasons you decided to take this action? **[DO NOT READ, ALLOW MULTIPLE RESPONSES]**

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

Commute Services/Programs
24. new option that became available
25. special program at work
26. pressure or encouragement from employer
27. GRH (formal or informal programs)
28. Ozone action/Code Red days
29. no parking, parking expense
30. found carpool partner
31. NuRide (VA carpool incentive)
32. Metrochek, SmartTrip, transit subsidy, vanpool subsidy
33. Commuter Choice Maryland

Information/Promotion
34. advertising
35. initiated request/looked for information on my own
36. info. from Commuter Connections/Council of Governments/COG/800 number
37. Commuter Connections Website
38. other Website
39. word of mouth/recommendation
40. information from transit agency
41. saw highway sign
42. yellow pages
43. Other _____
88. Don't know
99. Refuse

IF Q46 = 34 (advertising), CODE Q47 = 1, DO NOT ASK Q47

Q47 Did the advertising you saw or heard encourage you to take this action?

1. yes
2. no **(SKIP TO Q70)**
9. DK/Ref **(SKIP TO Q70)**

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 Q20
IF Q45 NE 19, 20, 21, 22, 23, OR 24, SKIP TO Q50

(Autofill previous modes for respondents currently using alternative mode (Q17) named in Q45)
IF Q45 EQ 19 AND Q17 = 5 OR 6, AUTOFILL Q48 = "STILL USING," AUTOFILL Q49 = Q20, THEN SKIP TO Q50
IF Q45 EQ 20 AND Q17 = 7, AUTOFILL Q48 = "STILL USING," AUTOFILL Q49 = Q20, THEN SKIP TO Q50
IF Q45 EQ 21 AND Q17 = 8 OR 9, AUTOFILL Q48 = "STILL USING," AUTOFILL Q49 = Q20, THEN SKIP TO Q50
IF Q45 EQ 22 AND Q17 = 10, 11, 12, 13, AUTOFILL Q48 = "STILL USING," AUTOFILL Q49 = Q20, THEN SKIP TO Q50
IF Q45 EQ 23 AND Q17 = 14,15, AUTOFILL Q48 = "STILL USING," AUTOFILL Q49 = Q20, THEN SKIP TO Q50
IF Q45 EQ 24 AND Q17 = 2, AUTOFILL Q48 = "STILL USING," AUTOFILL Q49 = Q20, THEN SKIP TO Q50

(Autofill duration for respondents who tried alt mode named in Q45 in past two years (Q24))
IF Q45 = 19 AND Q24 = 5 OR 6, ANY DAY, AUTOFILL Q48 = Q25, THEN ASK Q49
IF Q45 = 20 AND Q24 = 7, ANY DAY, AUTOFILL Q48 = Q25, THEN ASK Q49
IF Q45 = 21 AND Q24 = 8 OR 9, ANY DAY, AUTOFILL Q48 = Q25, THEN ASK Q49
IF Q45 = 22 AND Q24 = 10, 11, 12, OR 13, ANY DAY, AUTOFILL Q48 = Q25, THEN ASK Q49
IF Q45 = 23 AND Q24 = 14 OR 15, ANY DAY, AUTOFILL Q48 = Q25, THEN ASK Q49
IF Q45 = 24 AND Q24 = 2, ANY DAY, AUTOFILL Q48 = Q25, THEN ASK Q49

Q48. How long did you <ALT MODE FROM Q45> to work? (**IF MORE THAN ONE ALT MODE NOTED IN Q45, ASK DURATION FOR ALL)**

_____ months **(CONVERT YEARS TO MONTHS)**
_____ less than one month
_____ occasionally (tried one, emergency use) **(SKIP TO Q50)**
_____ still using
999. DK/Ref.

IF Q45 = 19, 20, 21, 22, 23, 24 (MORE THAN ONE OF THESE), THEN CHOOSE ALT MODE USED LONGEST TIME FOR Q49. IF MORE THAN ONE ALT MODE USED SAME AMOUNT OF TIME, CHOOSE IN ORDER: TRAIN, BUS, VANPOOL, CAPOOL, BIKE/WALK, TELECOMMUTE.

Q49. Before trying <ALT MODE FROM Q45> to work, what type or types of transportation did you use to get to work? (**ACCEPT MULTIPLE RESPONSES**)

(IF Q11 = 1, 2, OR 3 AND RESPONDENT DOES NOT MENTION "CWS" (RESPONSE 1), ASK:)
"You said you typically work a compressed work schedule now. Did you work a compressed schedule at that time?"

(IF Q16 = 3, 4, OR 5 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, taxi
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 always used <MODE Q17>
20. not working then, not in DC area then
99. don't know, refused

IF Q41 = 17 (telecommute), CODE Q50 = 1 (DO NOT ASK Q50) AND CONTINUE TO Q51

Q50. Have you heard, seen, or read any advertising about telecommuting/telework in the past 6 months?

1. yes
2. no **(SKIP TO Q56)**
9. DK/Ref **(SKIP TO Q56)**

Q51. **IF Q41 = 17 (telecommute), SAY**, "You mentioned that you saw or heard advertising for telecommuting." **THEN CONTINUE WITH Q51**
After seeing or hearing this advertising, were you more likely to consider telecommuting?

1. yes
2. no **(SKIP TO Q56)**
3. no, was already telecommuting
9. DK/Ref **(SKIP TO Q56)**

IF Q51 = 3, AUTOCODE Q52 = 1, THEN SKIP TO Q56
IF Q17 = 2, ANY DAY OR TELEALL, ASK Q52, OTHERWISE, SKIP TO Q54

Q52. Were you telecommuting before you saw or heard the telecommute advertising?

1. yes (**SKIP TO Q56)**
2. no **(CONTINUE)**
9. DK/Ref **(SKIP TO Q56)**

Q53. Did the advertising encourage you to start telecommuting?

1. yes **(SKIP TO Q56)**
2. no **(SKIP TO Q56)**
9. DK/Ref **(SKIP TO Q56)**

Q54. **IF Q45 = 7, AUTOCODE Q54 = 1, THEN SKIP TO Q55**
Did you ask your employer about telecommuting opportunities at your work place?

1. yes
2. no **(SKIP TO Q56)**
9. DK/Ref (**SKIP TO Q56)**

Q55. **IF Q45 = 24, AUTOCODE Q55 = 1, THEN SKIP TO Q56**
Did you try telecommuting?

1. yes
2. no
9. DK/Ref

IF Q41 = 11, CODE Q56 = 1, THEN SKIP TO Q57

Q56. Have you heard, seen, or read any advertising about Guaranteed Ride Home or GRH in the past 6 months?

1. yes
2. no **(SKIP TO Q58)**
9. DK/Ref **(SKIP TO Q58)**

Q57. **IF Q45 = 9 AND 11, AUTOCODE Q57 = 3, THEN SKIP TO Q58**
IF Q45 = 9 AND Q45 NE 11, AUTOCODE Q57 = 1, THEN SKIP TO Q58
IF Q45 NE 9 AND Q45 = 11, AUTOCODE Q57 = 2, THEN SKIP TO Q58
IF Q41 = 10, SAY: ""You mentioned that you saw or heard advertising for Guaranteed Ride Home." **THEN CONTINUE WITH Q57**

After seeing or hearing this ad, did you seek information about GRH or register for a GRH program?

1. yes, sought information about GRH from regional program or from employer
2. yes, registered for GRH
3. yes, both sought information about GRH and registered for GRH
4. no
9. DK/Ref

Q58. **IF Q41 = 18, CODE Q58 = 1, THEN SKIP TO Q59**
Have you heard, seen, or read any advertising about HOV lanes in the past 6 months?

1. yes
2. no **(SKIP TO Q60)**
9. DK/Ref **(SKIP TO Q60)**

Q59. **IF Q45 = 10 AND 13, AUTOCODE Q59 = 3, THEN SKIP TO Q60**
IF Q45 = 10 AND Q45 NE 13, AUTOCODE Q59 = 1, THEN SKIP TO Q60
IF Q45 NE 10 AND Q45 = 13, AUTOCODE Q59 = 2, THEN SKIP TO Q60
IF Q41 = 18, SAY: ""You mentioned that you saw or heard advertising for HOV lanes." **THEN CONTINUE WITH Q59**

After seeing or hearing this ad, did you seek information about HOV lanes or start using HOV lanes for your commute after hearing or seeing the ad?

1. yes, sought information about HOV lanes
2. yes, started using HOV lanes for commuting
3. yes, both sought information about HOV and started using HOV lanes for commuting
4. no
9. DK/Ref

Q60. 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 **(SKIP TO Q62)**
2. No **(ASK Q61)**
9. DK/Ref **(CONTINUE TO Q61)**

Q61. If you wanted to find this type of information for the Washington region, where would you look? **(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. N/A
17. other _____
88. Don't know
99. Refuse

SKIP TO Q65

Q62. What is it? **(DON'T READ, ACCEPT MULTIPLES)**

1.	800-745-RIDE (7433)	Commuter Connections (COG)
2.	888-730-6664	Potomac Rappahannock Transportation
3.	703-324-1111	Fairfax County Ridesources
4.	301-565-5870	Montgomery Transit Information Call Center
5.	202-637-7000	METRO (Washington Metro. Area Transit Authority)
6.	www.mwcog.org	Commuter Connections (COG)
	www.commuterconnections.org	Commuter Connections (COG)
	www.commuterconnections.com	Commuter Connections (COG)
7.	www.vre.org	Virginia Railway Express (VRE)
8.	www.commuterdirect.com	Arlington
	www.commuterpage.com	Arlington
9.	www.springfieldinterchange.com	Springfield Interchange (VDOT)
10.	www.mtamaryland.com	Maryland Mass Transit Admin. (MTA)
		MARC Commuter Rail
11.	www.wmata.com	WMATA, Metro
12.	www.HOVcalculator.com	VDOT
13.	www.commuterchoicemaryland.com	Commuter Choice Maryland
	1-866-RIDE-MTA (1-800-743-3682),	
14.	Other (SPECIFY) _____	

Q63. Have you used this number or website in the past year? **(CHECK FOR ALL RESPONSES IN Q62)**

1. Yes
2. No
8. Don't know
9. Refuse

IF Q62 = ONLY 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, SKIP TO Q65

Q64. How did you find out about this number or website? **(DO NOT READ; RECORD FIRST MENTION ONLY)**

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

Q65. In some U.S. cities, commuters can find carpool partners through an internet website. Commuters who want to carpool enter information about when and where they work and a phone number or email address where they can be contacted. They also can search for other commuters who have similar travel and want to carpool. If a service like this was available in the Washington metro area, how likely would you be to use it? Would you …definitely use it, probably use it, maybe or maybe not use it, probably not use it, or definitely not use it?

1. definitely use **(SKIP TO Q67)**
2. probably use **(SKIP TO Q67)**
3. maybe or maybe not use **(SKIP TO Q67)**
4. probably not use
5. definitely not use
9. DK/Ref **(DO NOT READ, SKIP TO Q68)**

Q66. For what reasons would you not be interested in using this service? **(DO NO READ RESPOMSES; CHECK ALL THAT APPLY)**

1. not interested in carpooling or vanpooling
2. cannot carpool or vanpool because of circumstances (work hours irregular,…)
3. already carpool
4. concerned about privacy, don't want personal information on internet
5. no access to internet
6. other _____
9. DK/Ref

SKIP TO Q68

Q67. Would you be willing to provide any of the following information on this website for other commuters to use to contact you…? (READ CHOICES 1 - 3) (ALLOW MULTIPLE RESPONSES, 1 – 3)

1 A postal address
2 An email address
3 A phone number
4 Not willing to provide any of this information
9 DK/Ref **(DO NOT READ)**

Q68. **IF Q17 = 5 - 15, ANY DAY, SKIP TO Q70**
Suppose commuters who carpool to work could receive a monthly $25 gift card for purchases at area merchants. How likely would you be to try carpooling to receive the gift card? Would you … definitely try, probably try, maybe or maybe not try, probably not try, or definitely not try carpooling?

1. definitely try **(SKIP TO Q70)**
2. probably try **(SKIP TO Q70)**
3. maybe or maybe not try **(SKIP TO Q70)**
4. probably not try
5. definitely not try
9. DK/Ref **(DO NOT READ)**

Q69. What if the monthly gift card was for $50? In this case, would you … definitely try, probably try, maybe or maybe not try, probably not try, or definitely not try carpooling?

1. definitely try
2. probably try
3. maybe or maybe not try
4. probably not try
5. definitely not try
9. DK/Ref **(DO NOT READ)**

Q70. **IF Q62 = 1 OR 6, CODE Q70 = 1, THEN SKIP TO Q71**
Have you heard of an organization in the Washington region called Commuter Connections?

1. yes
2. no **(SKIP TO Q73)**
8. Don't know **(SKIP TO Q73)**
9. Refuse **(SKIP TO Q73)**

Q71. 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

Q72. 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. Metrochek, SmartTrip
12. other (specify) _____
88. don't know
99. Refuse

DEMOGRAPHICS

Q73. 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?

_____

Q74. 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 **(IF ONE, SKIP TO Q79)**
88. Don't know **(SKIP TO Q79)**
99. Refuse **(SKIP TO Q79)**

Q75. And how many of these household members are under the age of 16?

_____ household members
888 Don't know
999 Refuse

Q76. How many of these household members are employed outside the home? (INCLUDING RESPONDENT)

_____employed
888. Don't know **(SKIP TO Q79)**
999. Refuse **(SKIP TO Q79)**

Q77. How many work at outside job or jobs 35 hours or more per week?

_____ household members **(IF Q77 = Q76, SKIP TO Q79)**
888. Don't know
999. Refuse

Q78. How many work at outside job or jobs less than 35 hours per week?

_____ household members
888. Don't know
999. Refuse

(IF TELEALL OR HOMEALL SKIP TO Q80)

Now I have a few last questions for classification purposes.

Q79. First, 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.

Q80. What is your occupation? _____

IF HOMEALL SKIP TO Q82, AUTO CODE "5" IN Q81

Q81. 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.

Q82. Which of the following groups includes your age? **(READ CHOICES 1 - 7)**

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'TREAD)**

Q83. Do you consider yourself to be Latino, Hispanic, or Spanish?

1. Yes
2. No
9. DK/Ref.

Q84. Now I want to ask you about your race. Which one of the following best describes your racial background. Is it . . . **(READ CHOICES 1-5; SELECT ONE RESPONE ONLY**)

1. White
2. Black or African-American
3. American Indian or Alaska Native
4. Asian
5. Native Hawaiian or Other Pacific Islander
6. Other (SPECIFY) _____
9. Refused

Q85. Finally, 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
7. $100,000 -$119,999
8. $120,000 - $139,999
9. $140,000 - $159,999
10. $160,000 or more
99. Refused **(DON'T READ)**

Thank you very much for your time and cooperation!

(RECORD SEX:) 1 male 2 female

APPENDIX D - INSTRUCTIONS AND DEFINITIONS OF TERMS For 2005 Mini-Household Survey

Q11: Flexible work schedule/"Flex-time". Employees select their own starting and finishing times within a set daily period of time, e.g., between 7am and 7pm, to make up the hours they need to work daily. Flex-time is generally not available to staff who are required to work shifts.

Q15, Q19, Q23, etc.:

Drive Alone. Should include dropped off by taxi or other "livery" service, if the passenger is the only passenger. If two or more passengers are in the car, excluding the driver, it would be a carpool. You drive alone if you travel from your home to work by driving your car, motorcycle, or moped, without a passenger.

Carpool. You carpool if you arrive at your worksite by automobile with 2 to 6 occupants and your car-pool has a regular arrangement between the occupants. May also include occupants that are being dropped off at other worksites or companies.

Vanpool. 7 - 15 occupants commuting to and from work by automobile. May also include occupants that are being dropped off at other worksites or companies.

Buspool. A buspool is a large vanpool - generally 16+ people regularly riding together. It differs from a bus in that the riders "subscribe" or sign up to ride and have a reserved seat.

Casual carpooling/slugging. Casual carpools are carpools that are formed on a day-to-day basis to take advantage of HOV lanes. They are most popular for commuters coming from Virginia to downtown Washington. People who want rides park at a few well-established but unofficial parking areas in VA and line up to wait for drivers. People who want riders cruise by that location and pick up as many as the car will hold. There are pick-up locations in Washington for the evening trip as well, but drivers and riders do not generally carpool home together.

Transit. You are a transit commuter if you ride a local or commuter bus (Metrobus, The Bus, Ride-On, Fairfax Connector, OmniRide, OmniLink, DASH or any other public or private bus), commuter rail (MARC, VRE), Amtrak, or Metrorail to get to work.

Telecommuting. You telework or telecommute if you work at your home, telework center, or satellite office other than your normal worksite, during your regular work time.

Day off/compressed work schedule. This is a non-standard or flexible (flex) schedule:
4/40 (4 10-hour days per week for a total of 40 hours)
9/80 (9 days every 2 weeks for a total of 80 hours)
3/36 (3 12-hour days per week for a total of 36 hours per week, usually worked by police, firemen, hospital employees, etc.
flex-hours (core hours with flexible start & stop times)

MARC. Maryland Area Rail Commuter. Light rail which comes from Baltimore and West Virginia, similar to our Coaster.

MTA. Maryland Transit Authority. Light rail

VRE. Virginia Railway Express. Light rail.

Amtrak. Just like the Amtrak train here.

Metrorail. This is a subway within Washington, D.C., & northern Virginia and Maryland. It's mostly underground, but does also run above ground in some areas.

SmarTrip and Metrochek are a tax-free, commute benefit that companies can offer to employees in the Washington metropolitan area. SmarTrip is a permanent, rechargeable fare card and is embedded with a special computer chip that keeps track of the value of the card. Metrochek looks and works like a Metrorail farecard and can be redeemed on area public transit.

InterCounty Connection or ICC. A planned new road in Maryland that will be a toll road. The ICC is in the news, but not necessarily advertisements.

Q29: Miles traveled. Distance from home to work not including side trips, unless they are regular stops (e.g., dropping off a child at day care).

Q20, Q26, Q62, etc.:

GRH Guaranteed Ride Home (otherwise known as GRH) provides commuters who regularly carpool, vanpool, bike, walk or take transit to work with a reliable ride home when one of life's unexpected emergencies arises. Commuters will be able to use GRH to get home for unexpected personal emergencies and unscheduled overtime up to FOUR times per year.

Q13, Q14: Teleworking. Also known as telecommuting, means using information technology and telecommunications to replace work-related travel. Simply put, it means working at home or closer to home. With teleworking, employees work at home or perhaps at a local *telework center* one or more days per week.

Q13, Q14, Q36-Q42:

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

Q20, Q26, Q30b, Q62, etc.:

HOV lane. "high occupancy vehicle" lane/carpool lane/diamond lane

Q82, Q85, Q88:

Kiosks: Commuter Connections offers a regional network of information kiosks through out the Washington region. InfoExpress kiosks have a wealth of information and services for area commuters. InfoExpress kiosks are equipped with touch screen monitors & easy to use interface.

Purpose of survey:

The survey is being conducted in the Washington Metropolitan area on behalf of the Washington Metropolitan Council of Governments. The purpose of the study is to provide an updated view of commuting in the Washington D.C. area for transportation policymakers from Washington D.C., Maryland and Virginia.

The study responses will be expanded to represent the commute patterns for employed households within the twelve jurisdictions of the study area. The results will be used to measure current commute patterns and program effectiveness, as well as commuter awareness and attitudes.

Contact person:

Mr. Nicholas W. Ramfos, Chief of Alternative Commute Programs
Metropolitan Washington Council of Governments (COG)
Commuter Connections
777 North Capitol Street NE, Suite 300
Washington DC 20002
202/962-3200

How we got your number:

When trying to reach households in the Metropolitan Washington, D.C. area, we start with your area code and the 3-digit prefix that begins your phone number. Then, a computer randomly selects the last 4 digits to make up a 7-digit phone number. We have no name or address, nor will we ask for one. We are just trying to gather information from households in your area.

You work for:

CIC Research, Inc.
San Diego, CA
(800) 892-2250 or (858) 637-4000
Supervisors: Susan Landfield, Da'Wan Baker, Dave Harper, Scot Evans

Flexible working hours (Flex-time)

Employees select their own starting and finishing times within a set daily period of time, for example between 7:00 a.m. and 7:00 p.m., to make up the hours they need to work daily. All Staff work a common, core period of hours each day, for example, from 10 a.m. to 2 p.m., within the period specified. Flex-time is generally not available to staff who are required to work shifts. Flex-time does not have to be a company policy.

And flex-time and flexible working hours are the same thing.

Q36. List of Telework Centers for 2005 Washington Mini-HH - #856

Maryland

1. Bowie State University Telecommuting Center (Whiteoak)
2. Frederick Telework Center
3. Hagerstown Telework Center
4. Laurel Lakes Telecommuting Center
5. Calvert Telecommuting Center (Prince Frederick Telecommuting)
6. Waldorf Telecommuting Center (Charles County)

Virginia

7. GMU Fairfax Telework and Training Center
8. Fredericksburg Regional Telework Center (Fredericksburg)
9. GMU Herndon Telework and Training Center
10. Manassas Telecommuting Center
11. Fredericksburg Regional Telework Center (Stafford)
12. GMU Sterling Telework and Training Center
13. Shenandoah Valley Telecommuting Center (NetTech Center of Winchester)
14. Woodbridge Telework Center

Washington, D.C.

15. Executive Office Club

West Virginia

16. Jefferson County TeleCenter (BIZTECH - The Telecenter at the Business and Technology Community Center of Jefferson County)

99. Other (SPECIFY STATE) _____

APPENDIX E – COMPARISON OF MINI-HOUSEHOLD SURVEY RESULTS WITH RESULTS OF 2004 AND 2001 SOC SURVEYS

2005 Mini Household Survey Sample – Survey of 2,163 workers in the Washington metropolitan region. Sample included 2,031 respondents who traveled outside their homes one or more weekdays per week to a job location ("regional commuters") and 132 respondents who worked at home full-time (107), telecommuted from home full-time (20), or worked only on weekends (5). These 132 respondents were excluded from questions related to weekly commute patterns, but included in other questions as appropriate.

2001 and 2004 State of Commute Survey Samples – Surveys of 7,200 respondents, with 6,851 "regional commuters" and 349 respondents who either worked at home (self-employed) or telecommuted full-time, or who worked only on weekends. These 349 respondents were excluded from questions related to weekly commute patterns, but included in other questions as appropriate.

Current Travel Information

- **Current mode split** – Percentage of weekly commute trips (including CWS and TW days)

	05 MHH	04 SOC	01 SOC
DA/Motorcycle	68.7%	71.4%	70.3%
CP	8.2%	5.6%	6.9%
VP	0.3%	0.3%	0.5%
Bus	5.5%	4.4%	4.5%
Metrorail	10.7%	11.5%	11.5%
Commuter Rail	0.7%	0.9%	0.8%
Bike/walk	2.3%	2.2%	2.3%
CWS	0.7%	0.7%	0.9%
Telework	3.0%	2.3%	2.3%

- **Regular mode use** – Percentages of weekly "on the road" commuter trips (without TC/CWS)

	05 MHH	04 SOC	01 SOC
DA/Motorcycle	71.3%	74.1%	72.6%
CP/VP	8.8%	6.1%	7.6%
Bus	5.7%	4.7%	4.6%
Train	11.8%	12.8%	12.7%
Bike/walk	2.4%	2.3%	2.4%

- **Average length of commute**

	05 MHH	04 SOC	01 SOC
Distance	16.3 miles	16.5 miles	15.5 miles
Time	N/A	34 minutes	32 minutes

- **Work Non-standard/flexible schedules**

	05 MHH	04 SOC	01 SOC
No	70%	69%	72%
Yes	30%	31%	28%
4/40	2%	2%	3%
9/80	2%	3%	2%
Flextime	26%	26%	22%

- **Length of time using current alternative modes** – regional commuters who currently use alternative modes

	05 MHH		04 SOC		01 SOC
1 – 11 months	23%		23%		28%
12 – 24 months	20%		23%		23%
25 – 36 months	12%		9%		
37 – 60 months	11%	57%	12%	54%	49%
More than 60 months	34%		33%		
Average duration (months)	**69 months**		**70 months**		**N/A**

- **Carpool/Vanpool occupancy**

	05 MHH	04 SOC	01 SOC
Carpool/slug	2.6	2.6	2.6
Vanpool	7.6*	10.0	11.4

* Caution, small sample size for vanpool

- **Reasons for using alt modes** – regional commutes who currently use alternative modes

	05 MHH	04 SOC	01 SOC
Save time	14%	18%	20%
Changed jobs	17%	16%	5%
Save money	13%	14%	21%
No vehicle available	14%	11%	19%
Moved residence	10%	9%	3%
Avoid congestion	4%	7%	8%
Always used	1%	7%	2%
Tired of driving	6%	6%	8%

- **Switching among modes** – Modes used previously by commuters who use alternative modes now. Not all shifts to alt modes are from drive alone. Some shifting occurs from one alt mode to another

	05 MHH	04 SOC	01 SOC
Drive alone	42%	40%	N/A
Bus	12%	11%	N/A
Metrorail	11%	8%	N/A
Carpool/Vanpool	9%	6%	N/A
Bike/walk	6%	6%	N/A
Commuter Rail	1%	1%	N/A
Always used this mode	10%	12%	N/A
Not working in metro area then	13%	17%	N/A

- **Used or tried other alternative modes** – Respondents used or tried an alt mode they are not using now within the past two years (all regional commuters)

	05 MHH		04 SOC		01 SOC
Yes	20%		22%		24%
Other Alternatives Tried					
Carpool/casual carpool	4%		3%		3%
Vanpool	0%		<1%		<1%
Bus	4%		7%		8%
Metrorail	10%	11%	11%	12%	13%
Commuter Rail	1%		1%		
Bike/walk	2%		3%		2%

- **Commute easier, more difficult, or same as one year ago** – all regional commuters

	05 MHH	04 SOC	01 SOC
Easier	12%	14%	N/A
More difficult	31%	29%	N/A
About the same	54%	54%	N/A
Reasons commute is easier			
Shorter distance	37%	44%	
Faster trip, less time	36%	21%	
Route less congested	24%	19%	
Less stressful	6%	9%	
Reasons commute is more difficult			
Route more congested	79%	81%	
Slower trip, more time	14%	11%	
Longer distance	11%	11%	
Construction along route	8%	N/A	
Train/bus more crowded	5%	N/A	
More stressful	3%	5%	

Telecommute

The definition of "telecommuter" used in the 2005 Mini-Household survey was the same as that used in the 2004 SOC survey, but the 2004 definition had been changed from that used in 2001. This change likely affected the 2001 telecommute results relative to those from 2004 and 2005. To provide a consistent comparison, the 2001 TC results were adjusted to reflect the definition used in 2004 and 2005. The adjusted 2001 percentages are shown below.

- **Telecommute incidence in region** – all respondents

	05 MHH	04 SOC	01 SOC
% regional workers telecommuting	13.2%	12.8%	11.3%
Home-based telecommuters	95%	95%	88%

- **Potential for additional regional telecommuting –** regional commuters who do not telecommute

	05 MHH	04 SOC	01 SOC
Regional non-telecommuters	87%	87%	83%
Job responsibilities allow TC *	34%	25%	28%
Interested in TC if offered **	21%	19%	18%

* "could telecommute if permitted to do so by employer"
** "could and would telecommute if permitted to do so by employer"

- **Telecommute frequency** – current telecommuters

	05 MHH	04 SOC	01 SOC
Occasionally/special projects	13%	9%	17%
< once per month/emergency	16%	12%	12%
1 – 3 times per month	28%	29%	29%
1 day per week	17%	18%	16%
2 days per week	11%	14%	9%
3 or more times per week	16%	17%	16%
Mean (days per week)	**1.2**	**1.3**	**1.2**

- **Length of time telecommuting** – current telecommuters

	05 MHH	04 SOC	01 SOC
Less than one year	18%	22%	23%
One to two years	26%	27%	29%
More than two years	56%	51%	48%

- **How learned about telecommuting** – current telecommuters

	05 MHH	04 SOC	01 SOC
Special program at work	65%	56%	42%
Word of mouth	6%	18%	19%
Initiated request on my own	19%	16%	23%
Commuter Connections/COG	**1%**	**5%**	**5%**
Advertising	1%	3%	6%
Website	1%	0%	0%

Advertising/Messages

- **Heard, seen, or read commute advertising in past 6 months** – all respondents (includes both commuters and respondents who work at home/telework from home full-time)

	05 MHH	04 SOC	01 SOC
Yes	57%	55%	55%
Ad messages recalled			
You can call for CP/VP info	18%	16%	9%
Use bus/train, Metro	11%	7%	N/A
New buses/trains coming	9%	7%	4%
Telecommuting	6%	3%	2%
Call Commuter Connections, CC website	5%	6%	5%
GRH	5%	12%	3%

- **Attitudes/actions after hearing/seeing commute ads** (respondents who remembered ads)

	05 MHH	04 SOC	01 SOC
More likely to consider RS/transit	21%	18%	28%
Too actions to change commute	4%	2%	N/A
Advertising encouraged action taken (of respondents who took action)	71%	68%	N/A
Actions taken			
Sought commute info (internet, family, commute organization, other source)	3%	1.6%	N/A
Tried alt mode	2%	0.2%	N/A

- **Telecommute advertising in past 6 months** – all respondents

	05 MHH	04 SOC	01 SOC
Heard, seen, or read TC ads	37%	31%	N/A
Actions after ad (respondents aware of ads)			
More likely to consider TC after ad	18%	N/A	N/A
Started TC after seeing/hearing ads	2%	N/A	N/A
Asked employer about TC	7%	N/A	N/A

- **GRH advertising in past 6 months** – all respondents

	05 MHH	04 SOC	01 SOC
Heard, seen, or read GRH ads	46%	56%	N/A
Sought GRH information	3%	3%	N/A
Registered for any GRH program	5%	6%	N/A

- **Awareness and use of regional commute info phone/website** – all respondents

	05 MHH	04 SOC	01 SOC
Know regional number/website available	45%	46%	33%
Named CC as source (unprompted)	7%	6%	5%
Used any number/website in past year	10%	11%	10%
Used CC number/website in past year	1%	1%	N/A

- **Know of CC** (prompted or unprompted) – all respondents

	05 MHH	04 SOC	01 SOC
Yes – (named CC without prompt)	7%	6%	5%
Yes – (knew of CC when prompted)	52%	58%	N/A
CC services recalled (respondents aware of CC)			
GRH	27%	40%	N/A
CP/VP, ridematch info	27%	28%	N/A
Help finding CP/VP partners	19%	16%	N/A
Transit information	5%	5%	N/A
Telecommute info	1%	2%	N/A

Demographics

- **State of Residence** – all respondents

	05 MHH	04 SOC	01 SOC
District of Columbia	11%	11%	12%
Maryland	45%	45%	47%
Virginia	44%	44%	41%
Other/Ref	0%	0%	0%

- **State Employment** – all respondents

	05 MHH	04 SOC	01 SOC
District of Columbia	29%	29%	30%
Maryland	31%	32%	32%
Virginia	37%	37%	34%
Other/Ref	3%	2%	4%

- **Employer type** – all respondents

	05 MHH	04 SOC	01 SOC
Federal agency	20%	22%	20%
State/local government	13%	13%	14%
Non-profit organization	9%	10%	10%
Private sector	48%	49%	50%
Self-employed	11%	7%	7%

- **Employer size** – all respondents

	05 MHH	04 SOC	01 SOC
1 – 25 employees	28%	25%	30%
26 – 50 employees	12%	12%	12%
51 – 100 employees	12%	12%	11%
101 – 250 employees	13%	13%	12%
251 – 999 employees	14%	15%	14%
1,000 employees	21%	25%	22%

- **Age** – all respondents

	05 MHH	04 SOC	01 SOC
Under 18	<1%	1%	1%
18 – 24	6%	6%	9%
25 – 34	21%	21%	23%
35 – 44	30%	28%	29%
45 – 54	26%	27%	25%
55 – 64	14%	14%	10%
65 or older	3%	3%	3%

- **Gender** – all respondents

	05 MHH	04 SOC	01 SOC
Female	52%	55%	54%
Male	48%	45%	46%

- **Income** – all respondents

	05 MHH		04 SOC		01 SOC
Under $20,000	5%		2%		3%
$20,000 – $29,999	5%		4%		6%
$30,000 – $39,999	7%		8%		9%
$40,000 – $59,999	14%		14%		18%
$60,000 – $79,999	15%		17%		19%
$80,000 – $99,999	16%		16%		15%
$100,000 – $119,999	13%		14%		
$120,000 – $139,999	9%	40%	7%	39%	30%
$140,000 – $159,999	5%		5%		
$160,000 or more	13%		13%		

- **Ethnic/Racial background** – all respondents

	05 MHH	04 SOC	01 SOC
Hispanic/Latino	9%	6%	6%
White	62%	64%	61%
Black/African-American	22%	23%	23%
Asian	5%	5%	5%
Other/Mixed	3%	2%	5%