ITEM #3

COMMUTER CONNECTIONS
STATE OF THE COMMUTE SURVEY
2004

Survey Report

Draft - Revised

Prepared for:

Metropolitan Washington Council of Governments

Prepared by:

LDA Consulting
Washington, DC 20002
(202) 548-0205

In conjunction with:

CIC Research, Inc.
Eric N. Schreffler
Elham Shirazi
Cheryl Collier

November 16, 2004

TABLE OF CONTENTS

Table of Contents (cont.)

LIST OF TABLES

List of Tables (continued)

List of Tables (continued)

LIST OF FIGURES

SECTION 1 – INTRODUCTION

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

COG has a strong interest in evaluating the effectiveness of its commuter services programs. In 1997 Commuter Connections established an evaluation framework that 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 7,200 employed persons in the 12-jurisdiction Washington metropolitan region.

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

Second, the SOC survey is used to help estimate the impacts of some TERMs, such as the Telework Resource Center and the InfoExpress Kiosk portion of Integrated Rideshare, two TERMs that might influence on the population-at-large as well as on commuters who directly participate in the TERMs. Finally, by querying commuters about sources of information on alternative modes and their reasons for choosing alternative modes for commuting, the survey examines how other commute alternative programs and marketing efforts might influence commuting behavior in the region.

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

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

Following these four main sections are six appendices dealing with survey procedures. They include: Appendix A – Survey data expansion, Appendix B – Final dialing disposition, Appendix C – SOC Survey instruments, Appendix D – Interviewer Instructions and Terms, and Appendix E – Comparison of Key 2004 SOC Results and 2001 SOC 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.

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 2004 study. A total of 600 random telephone surveys were conducted in each of the 12 jurisdictions of the study area, resulting in 7,200 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 2004 SOC questionnaire was based on the questionnaire developed in 2001, with modifications and additions as needed. LDA Consulting, CIC Research, and COG modified the survey questionnaire, with input from a TDM Evaluation Group comprised of representatives from the District of Columbia, Maryland, and Virginia. The survey was intended to meet multiple objectives, including trend analysis and evaluation of three TERMs: Telework Resource Center, Integrated Rideshare (Kiosk component), and new for 2004, the Mass Marketing TERM.

Wherever possible, an attempt was made to replicate questions used in the 2001 SOC Survey to allow trend analysis, but changes were made when the revisions were expected to add substantially to the accuracy of the data. Additionally, significant new questions were added to collect data for evaluation of the Mass Marketing TERM.

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 CATI (Computer Assisted Telephone Interviewing) 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 interviews with questionnaire flow
- Practice session on CATI systems in full operational mode

Interviews were conducted between February 7 and May 2, 2004. Additional Fairfax County interviews were conducted between June 5 and June 15, 2004. 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 callback 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 156 surveys (2.2%) 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 600 interviews were completed in each of the 12 counties, resulting in a total sample size of 7,200 completed surveys. The refusal rate for the survey was 24.4 percent[3]. An average of 45.0 call attempts was made for each completed interview. Interviews for Fairfax County were conducted separately, when the initial dialing specifications were found to cover the City of Fairfax only. A total of 586 additional interviews were completed to provide an accurate representation for all of Fairfax County. Fourteen surveys from the City of Fairfax were retained from the original interviewing period. The refusal rate for these interviews was 18.8%, while an average of 47.5 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 2004 method differs from the 2001 expansion methodology at the recommendation of COG. 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. Survey results also are compared with corresponding data from the 2001 SOC Survey, where the comparison is notable. A comparison of key results from the 2001 and 2004 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 Availability of and attitudes toward transportation options
- 3-E Awareness of commute advertising and services
- 3-F Awareness of use of commuter assistance resources
- 3-G Commuter assistance services provided by employers
- 3-H Guaranteed Ride Home
- 3-I Commute information kiosks

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 (55%). This was essentially the same percentage as in the 2001 SOC survey (54% female).

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

Table 1
Respondent Age
(n=6,964)

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	28%		

Ethnic Background – As illustrated in Table 2, Caucasians and African-Americans represented the two largest ethnic groups of survey respondents, 64% and 23% respectively. Hispanic and Latino respondents accounted for about six percent and Asians/Pacific Islanders represented five percent.

Table 2
Ethnic Background
(n=6,801)

Ethnic Group	Percentage	Ethnic Group	Percentage
White/Caucasian	64%	Asian	5%
African-American	23%	Other/Mixed	2%
Hispanic/Latino	6%		

Income – Table 3 shows that almost three-quarters (72%) of respondents had household incomes of $60,000 or higher. Nearly one in five (39%) had incomes of $100,000 or more. About one-quarter (22%) had household incomes between $30,000 and $59,999.

Table 3
Annual Household Income
(n=5,706)

Income	Percentage	Income	Percentage
Less than $20,000	2%	$80,000 – 99,999	16%
$20,000 – 29,999	4%	$100,000 – 119,999	14%
$30,000 – 39,999	8%	$120,000 – 139,000	7%
$40,000 – 59,999	14%	$140,000 – 159,000	5%
$60,000 – 79,999	17%	$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 (36%), 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) (23%), 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 (20%), Montgomery County (16%), and Prince George's County (10%).

Table 4
Home and Work Locations

State/County	Home Location* (n=7,200)	Work Location** (n=7,200)
District of Columbia	**11%**	**29%**
Maryland Counties	**45%**	**31%**
Montgomery Co.	19%	16%
Prince Georges Co.	17%	10%
Frederick Co.	4%	3%
Charles Co.	3%	1%
Calvert Co.	2%	1%
Virginia Counties	**44%**	**36%**
Fairfax Co.	23%	20%
Prince William Co.	7%	3%
Arlington Co.	5%	6%
Loudoun Co.	5%	3%
Alexandria City	3%	3%
Stafford Co.	2%	1%
Other***	**N/A**	**4%**

* 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 (47%) of the respondents worked for a private sector employer. Government agencies employed about one-third: federal agencies, 22%, and state and local agencies, 13%. About one in ten (10%) worked for a non-profit organization and the remaining seven percent were self-employed.

Table 5
Employer Type
(n=7,030)

Employer Type	Percentage
Private sector	47%
Federal agency	22%
State/local agency	13%
Non-profit	10%
Self-employed	7%

The majority of respondents worked for employers that are either very small or very large. About half (48%) worked for firms with 100 or fewer employees. About a quarter (25%) worked for employers that have at least 1,000 employees.

Table 6
Employer Size
(n=6,502)

Number of Employees	Percentage	Number of Employees	Percentage
1-25	24%	101-250	13%
26-50	12%	251-999	15%
51-100	12%	1,000+	24%

Occupations – Respondents represented many occupations, as shown in Table 7. About six in ten respondents (39%) worked in professional or executive/managerial occupations (21%). Other common occupations included administrative support (10%) and technicians/technical support (7%). Sales and service occupations each represented six percent of respondents.

Table 7
Occupation
(n=6,767)

Occupation	Percentage	Occupation	Percentage
Professional	39%	Protective services	2%
Executive/managerial	21%	Military	2%
Administrative support	10%	Transportation	1%
Technicians/support	7%	Equipment handlers/cleaners	1%
Sales	6%	Other*	1%
Service	6%	Refused/don't know	1%
Precision craft, production	4%		

* 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 (88%) respondents worked full-time, defined as 35 or more hours per week. The remaining 12% were employed part-time.

Commute Times – As shown in Table 8, more than two-thirds (69%) of respondents worked at times that required them to commute in the morning between 6 am and 9 am, at least one day per week. And 90% said they commute between 5 am and 10 am.

Table 8
Arrival Time at Work

Respondents Who Commuted to Employment Sites Outside the Home
(n=6,655)

Arrival Time	Percentage
5 am to 5:59 am	3%
6 am to 6:59 am	11%
7 am – 7:59 am	24%
8 am – 8:59 am	34%
9 am – 9:59 am	18%
10 am to 5:59 pm	8%
6 pm to midnight	1%
12:01 am – 4:59 am	1%

Work at Home – About five percent of the total survey respondents said they never commuted to a work location outside their homes. The majority of these respondents (4% 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 five days per week were asked questions about their telecommute experience.

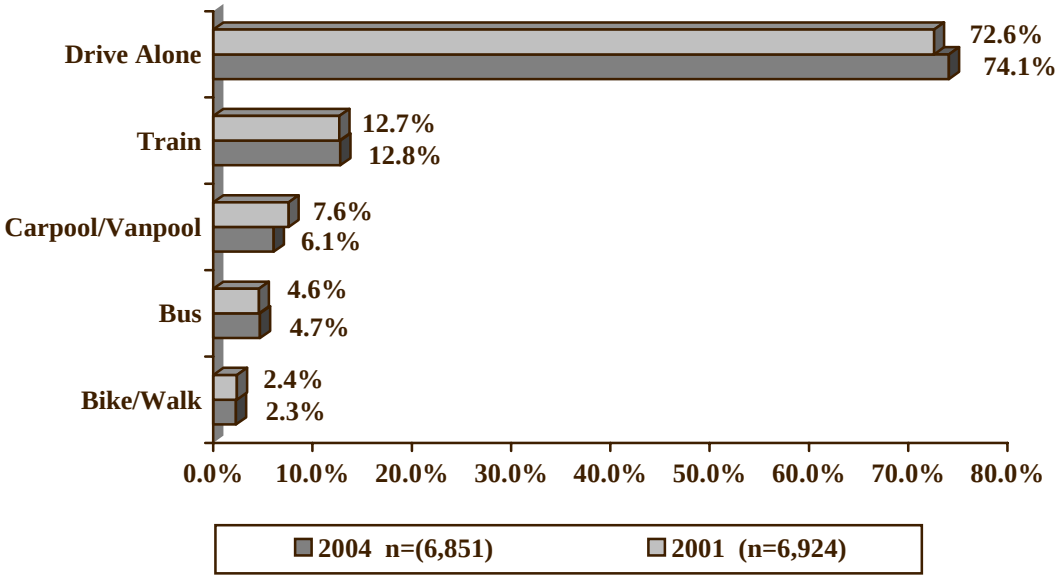
Current Commute Mode

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 2004 vs 2001 – Figure 1 presents mode shares as a percentage of weekly commute trips made to job locations outside the home in 2001 and 2004, 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 2004 vs 2001

(Excluding CWS and telecommute)

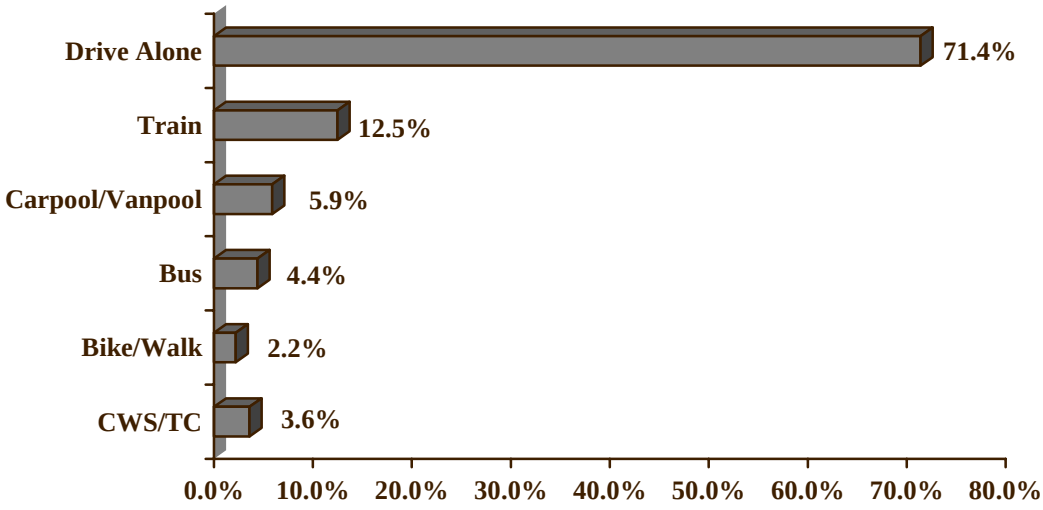


he comparison shows that the percentages of most modes remained essentially the same from 2001 to 2004. The percentage of commute trips made by train was 12.7% in 2001 and 12.8% in 2004. Trips made by bus accounted for 4.6% of weekly trips in 2001, compared to 4.7% in 2004. And bike/walk trips remained essentially constant at 2.4% in 2001 and 2.3% in 2004. But larger changes were observed in drive alone trips and carpool/ vanpool trips. Drive alone trips increased from 72.6% to 74.1% of total weekly commute trips and carpool vanpool trips fell from 7.6% to 6.1%. The difference in carpool/vanpool and drive alone shares were statistically significant, but all other differences were not statistically different.

Weekly Trips by Mode in 2004 – Figure 2 also presents mode shares as a percentage of weekly commute trips, but includes one additional category to the five mode groups displayed in Figure 1: telecommuting and 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.

Figure 2
Current Commute Modes

Percentage of Weekly Trips
(n= 6,896)



As shown, when compressed work schedule days off and telecommute days are added in, the drive alone trips drop to 71.4% of weekly "trips." Trip percentages for other modes also drop, because CWS and telecommuting draw trips away from all modes, not just drive alone. But the second most popular mode continues to be train, used for 12.5% of weekly trips. Respondents used carpool/vanpool for about six percent (5.9%) of weekly commute trips and bus for about four percent (4.4%). A small percentage (2.2%) of weekly trips were made by bike or walking.

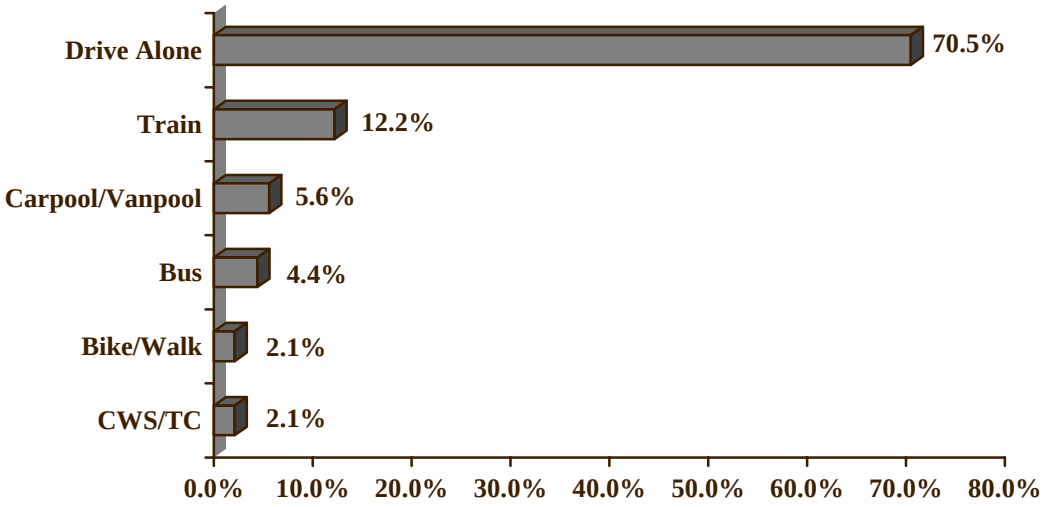
Compressed work schedule days off and teleworking accounted for just under four percent (3.6%) of weekly work days. As noted earlier, these "trips" actually were not made, but these days were officially assigned as part of the work week, so were included in this distribution.

Frequency of Current Mode Use – Figures 3 and 4 also show mode split for 2004, but as the percentage of respondents who used these modes. 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, regularly or occasionally.

Primary Mode – As shown in Figure 3, nearly all (97%) 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 three 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.

Figure 3
Current Commute Modes

Modes Used Three+ Days Per Week
(n= 6,896)



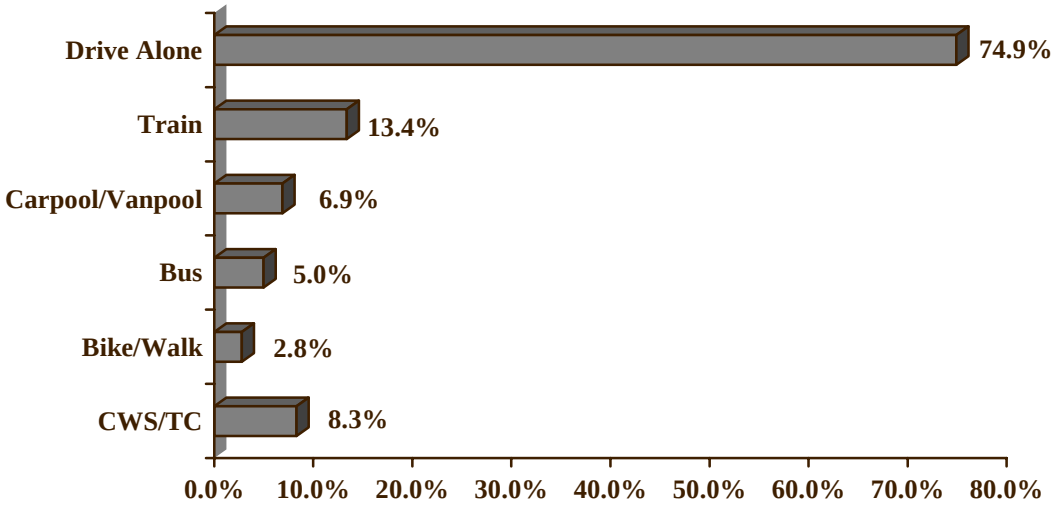
As with mode split by weekly trips, the most common primary mode was drive alone, used by 70.5% of respondents. The second most common mode, used by 12.2% of respondents, was train. About six percent (5.6%) said they carpooled, "casual" carpooled (slug), or vanpooled. Bus was the primary mode of just over four percent of respondents (4.3%). Two percent of respondents said they primarily biked or

walked (2.1%) and another two percent (2.1%) 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.

Regular or Occasional 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 occasionally or regularly.

Figure 4
Current Commute Modes *

Modes Used 1+ Days Per Week
(n=6,896)



* 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 in each case, 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; 74.9% of respondents used this mode either regularly or occasionally. When compared to the 70.5% of respondents who said they primarily drove alone, this shows that about five percent of respondents were occasional users of this mode.

Train was the second most popular mode, used by 13.4% of respondents. Carpooling/vanpooling was the third most popular mode, used by about seven percent (6.9%) of respondents one or more days per week. About one in twenty (5.0%) respondents rode a bus and 2.8% 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 9 shows use of individual modes within the six mode groups displayed in Figures 3 and 4.

Table 9
Individual Commute Modes by Days Used per Week

Mode Groups/Modes	Days Used Per Week		Mean Days
	1+ Days* (n=6,896)	3+ Days (n=6,896)	
Drive alone	**74.9%**	**70.5%**	4.6
Carpool/Vanpool	**6.9%**	**5.6%**	
- Regular carpool	5.8%	4.6%	4.1
- Casual carpool (slug)	0.8%	0.7%	4.4
- Vanpool	0.3%	0.3%	4.7
Bus	**5.0%**	**4.4%**	
- Ride a bus/shuttle	4.5%	4.0%	4.3
- Buspool	0.5%	0.4%	3.8
Train	**13.4%**	**12.2%**	
- Metrorail	12.4%	11.3%	4.4
- MARC (MD commuter rail)	0.3%	0.3%	4.2
- VRE	0.5%	0.4%	4.1
- AMTRAK/other train	0.2%	0.2%	4.5
Bike/Walk	**2.8%**	**2.1%**	
- Bike	0.7%	0.4%	3.2
- Walk	2.1%	1.7%	4.0
CWS/TC	**8.3%**	**2.1%**	
- Compressed work schedule	2.9%	0%	1.1
- Telecommute	5.4%	2.1%	2.5

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

Carpool/Vanpool – Among respondents who primarily carpooled or vanpooled (3+ days per week), regular carpooling dominated. More than 82% of regional carpool/vanpool use was in regular carpools (4.6% of total 5.6% carpool/vanpool use). Small proportions of regional carpoolers/vanpoolers used either casual carpool (one in eight carpoolers/vanpoolers) or vanpool (one in twenty).

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 84% of these respondents choosing regular carpool (5.8% of 6.9% total carpool/vanpool). This shows that both primary and "occasional" 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 10% of bus ridership was in buspools (0.4% of total 4.4% 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 occasional train riders, with 93% of train riders using this mode (11.3% of total 12.2% primary train ridership and 12.4% of total 13.4% occasional train use). The balance of train ridership was in commuter rail, with commuter rail divided approximately evenly among the three individual modes, MARC, VRE, and Amtrak.

Bike/Walk – In both the 1+ days and 3+ days per week categories, walking accounted for the majority of this mode group. Among all users, walking attracted 75% of the respondents (2.1% of 2.8% of bike/walk use). Among respondents who used this mode group regularly (3+ days week), walking was even more prevalent, used by 81% of respondents in this 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 2.1% of respondents who said they used these modes three or more days per week, showing that these "modes" have higher part-time use than do the more traditional commute modes. In both the regular use and all use cases, teleworking dominated, accounting for 100% of the 3+ days group and 65% of this group for 1+ days per week users. CWS use was evident only for the 1+ days group; 2.9% of respondents or 35% of respondents in this mode group, said they had one or more compressed work schedule days off during the survey week.

Mean Days Used – Table 9 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 bike, 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 2.5 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 sex, income, ethnic group, age, home state, and vehicle availability categories, respectively.

Sex – As shown in Table 10, women and men were equally likely to drive alone to work, but they differed slightly in the alternative modes they choose. Women were slightly more likely to carpool or vanpool (6.2%) than were men (5.5%) and to use the bus (5.0% women vs 4.1% men). Men were more likely than were women to use train (13.5% men vs 12.4% women).

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

Sex	(n=__)	Primary Commute Mode				
		DA	CP/VP	Bus	Train	B/W
Female	3,508	74.3%	6.2%	5.0%	12.4%	2.0%
Male	3,027	74.4%	5.5%	4.1%	13.5%	2.5%

Income – Table 11 presents primary mode by annual household income. Solo driving was most common among moderate- and high-income respondents ($30,000 or higher). Bus ridership declined steadily as income increased and carpool generally increased slightly. But except for respondents who had incomes less than $30,000, use of other modes were essentially the same for most income categories.

Table 11
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	312	56.6%	9.0%	21.2%	9.9%	3.3%
$30,000 – 59,999	1,146	73.2%	4.6%	6.3%	13.8%	2.1%
$60,000 – 79,999	883	74.4%	4.6%	4.9%	14.1%	2.0%
$80,000 – 99,999	900	76.8%	6.2%	2.7%	12.8%	1.3%
$100,000 – 119,999	760	75.4%	6.1%	2.1%	13.7%	2.7%
$120,000 – 139,999	887	73.9%	6.3%	1.0%	17.0%	1.7%
$140,000 +	811	76.2%	7.3%	1.5%	12.7%	2.3%

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 any other ethnic groups. African-American and Asian respondents were statistically more likely to use the train than were either White or Hispanic respondents.

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

Ethnic Group	(n=__)	Primary Commute Mode				
		DA	CP/VP	Bus	Train	B/W
African-American	1,043	63.2%	6.2%	9.7%	19.4%	1.5%
Asian	212	76.6%	2.9%	2.6%	16.5%	1.4%
Hispanic	355	68.1%	9.8%	9.9%	8.5%	3.8%
White	4,441	79.0%	5.6%	2.1%	10.8%	2.6%

Age – As shown in Table 13, the percentage of respondents who drove alone generally increased with increasing age. Respondents who were under 35 were more likely to use the train or bike/ walk than were older respondents. Use of carpool/vanpool and bus was essentially the same for all age groups.

Table 13
Current Primary Mode (3+ days) by Age

Age	(n=__)	Primary Commute Mode				
		DA	CP/VP	Bus	Train	B/W
< 25 years	411	67.8%	6.5%	5.5%	17.5%	2.7%
25 – 34	1,382	72.2%	5.8%	4.5%	14.1%	3.3%
35 – 44	1,886	76.5%	5.1%	4.6%	11.7%	2.0%
45 – 54	1,696	75.2%	6.0%	4.2%	13.0%	1.5%
55 +	814	74.3%	7.4%	4.3%	12.2%	1.8%
65 years or more	135	77.7%	4.1%	6.0%	7.8%	4.4%

State of Residence – As illustrated in Table 14, respondents' commute modes differed by where they lived. About eight in ten respondents in Virginia and Maryland drove alone to work, while fewer than half of District of Columbia residents primarily used this mode for commuting. Virginia residents were

the most likely to carpool, using this mode at twice the rate of Maryland residents and residents of the District of Columbia.

District residents were significantly more likely to use bus, train, bike, or walk to work than were respondents living in other states. Maryland residents used train more than did Virginia residents, but mode shares for bus and bike/walk were statistically the same for these residents.

Table 14
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	538	42.4%	4.7%	15.6%	28.5%	8.7%
Maryland	2,720	79.2%	4.2%	3.2%	11.9%	1.4%
Virginia	3,277	77.4%	7.9%	3.2%	9.9%	1.5%
State of Employment						
DC	1,815	46.6%	8.9%	8.6%	32.4%	3.5%
Maryland	2,038	86.9%	3.8%	3.4%	4.1%	1.8%
Virginia	2,543	86.1%	5.2%	2.3%	4.6%	1.7%

State of Employment – Table 14 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 somewhat 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 eight times more likely than other respondents to use the train as their primary mode.

Vehicles Available – Finally, Table 15 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 and from one to two, driving alone increased and the use of bus and train declined significantly. Carpooling was fairly equal, however, regardless of the number of vehicles available.

Table 15
Current Primary Mode (3+ days) by Number of Vehicles in the Household

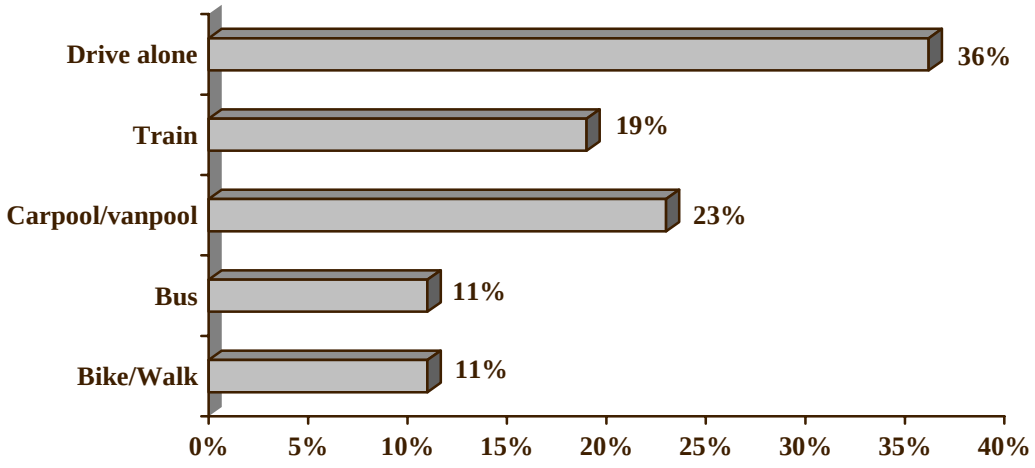
Number of Vehicles	(n=__)	Primary Commute Mode				
		DA	CP/VP	Bus	Train	B/W
0	227	6.6%*	6.0%	38.4%	37.6%	11.4%
1	1,597	66.9%	6.1%	6.0%	17.4%	3.7%
2	2,635	80.3%	5.9%	2.4%	10.2%	1.2%
3	1,243	82.3%	5.2%	1.6%	9.3%	1.4%
4 or more	777	82.3%	6.8%	1.2%	9.1%	0.6%

* 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 four percent of respondents 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.

Figure 5
Secondary Commute Modes Used

(n=358)



The most common secondary mode was drive alone; about a third (36%) of respondents said they drove alone one or two days per week. Carpooling and train were used as secondary modes by 23% and 19% of respondents, respectively. About a tenth either biked or walked (11%) to work one or two days per week. Another tenth (11%) said they occasionally used the bus to commute.

Secondary Mode by Primary Mode – Table 16 compares respondents' secondary modes to their primary modes. Respondents who primarily drove alone were most likely to carpool as a secondary mode (36%) or to use the train (32%). Respondents who regularly carpooled/vanpooled or rode the train overwhelmingly chose driving alone as a secondary mode. Bus riders were about evenly divided between driving alone (36%)and carpool/vanpool (42%) as a secondary mode. It is likely that these bus riders who occasionally carpooled used casual carpool (slug).

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

Primary Mode	(n=__)	Secondary Mode				
		DA	CP/VP	Bus	Train	B/W
Drive alone	92	0%	36%	14%	32%	18%
CP/VP	56	80%	0%	5%	12%	4%
Bus	27	37%	42%	0%	15%	6%
Train	77	60%	14%	15%	4%*	7%
Bike/walk	**	---	---	---	---	---

* Respondents in this categories used one form of train as a primary mode and a different form as a secondary mode (e.g., MARC as a primary mode and Amtrak as a second mode)

** Very small sample size

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 17 presents the distribution of distance. The average one-way commute distance was 16.5 miles, slightly higher than the 15.5 mile average calculated in the 2001 SOC survey. As shown in the table, more than one-third of the respondents (36%) commuted fewer than 10 miles one-way. Another third (31%) said they traveled between 10 and 19 miles. A small percentage (7%) had commute distances of 40 miles or greater.

Respondents traveled approximately the same distance regardless of their work location. Respondents who were employed in the District of Columbia or Maryland traveled an average of 16.1 miles and respondents who worked in Virginia traveled 16.4 miles one way. But respondents who lived in Maryland and Virginia traveled farther, 17.8 miles and 16.7 miles, respectively, than did residents of the District of Columbia, who traveled only 9.6 miles one way to work.

Table 17
Commute Distance (miles)
(n=6,222)

Number of Miles	Percentage	Number of Miles	Percentage
Less than 5 miles	17%	20 to 29 miles	18%
5 to 9 miles	19%	30 to 39 miles	9%
10 to 14 miles	18%	40 or more miles	7%
15 to 19 miles	13%	**Mean distance**	**16.5 miles**

Commute Travel Time – Survey respondents commuted, on average, about 34 minutes one way, approximately the same as the 32 minute average trip from the 2001 SOC survey. As shown in Table 18, about a third (37%) of respondents commuted 20 minutes or less and 43% commuted between 21 and 45 minutes. The remaining 21% traveled more than 45 minutes.

Table 18
Commute Distance (minutes)
(n=6,606)

Number of Minutes	Percentage	Number of Minutes	Percentage
10 minutes or less	15%	46 to 60 minutes	13%
11 to 20 minutes	22%	More than 60 minutes	8%
21 to 30 minutes	20%	**Mean time**	34 minutes
31 to 45 minutes	23%		

Commute Distance By Mode – Survey respondents' travel distance varied by the type of transportation they used to commute. As shown in Table 19, carpoolers/vanpoolers traveled the farthest, 20.9 miles one-way, more than four miles longer per trip than the average for all respondents. But bus and train riders spent the longest time commuting, about 44 to 46 minutes one-way, compared to about 34 minutes for all respondents.

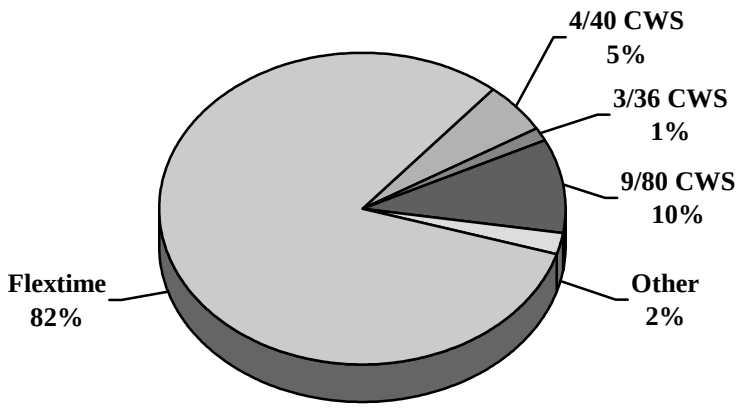
Table 19
Commute Distance by Primary Commute Mode (3+ days per week)

Primary Commute Mode	Average Distance (mi.)		Average Time (min.)	
	(n=__)	Average	(n=__)	Average
Drive alone	4,648	16.6 mi.	4,768	32 min.
Carpool/Vanpool	415	20.9 mi.	438	38 min.
Bus	216	13.8 mi.	292	46 min.
Train	526	16.4 mi.	669	44 min.
Bike/walk	141	2.5 mi.	142	17 min.

Non-Standard Work Schedules

Non-Standard Work Schedules Used – About a third of respondents (31%) 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 82% of these respondents. Compressed work schedules were used by about 18% of these respondents: five percent worked a 4/40 schedule, ten percent worked 9/80, and one percent worked a 3/36 schedule. The remaining two percent said they worked another type of non-standard schedule.

Figure 6
Non-Standard Schedule Types Used
(n=1,741)



Commute Distance by Non-Standard Schedule – Respondents who worked non-standard work schedules traveled farther to work (on days they traveled to their regular worksite) than did other respondents. The average distance for all respondents was 16.5 miles, one-way. Respondents who worked flextime traveled an average of 18.7 miles. Respondents who worked a 4/40 schedule traveled 17.6 miles and respondents who worked a 9/80 schedule had a commute distance of 19.5 miles.

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 20, respondents who worked a compressed schedule actually had higher carpool/vanpool rates and lower drive alone rates than did respondents who worked a standard, non-compressed, schedule. Respondents who said they worked flextime had the highest drive alone rate and the lowest carpool/vanpool rate. Bus and train percentages were essentially the same for all three groups.

Table 20
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	363	68.7%	8.9%	3.9%	13.8%	4.5%
Flextime	1,596	76.6%	4.7%	3.7%	12.7%	2.3%
No non-std schedule	4,552	73.9%	6.2%	4.9%	12.9%	2.1%

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 in Table 21 for both the 2004 and 2001 SOC surveys.

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 (33%) of respondents had used their current alternative mode for more than five years and more than half (54%) had used this mode for more than two years. The mean (average) time using an alternative mode was 70 months.

The results for the 2001 survey, shown in the last column, are fairly close to the 2004 results. In 2001, a slightly higher percentage of alternative mode respondents started using that mode within the past year; 28% in 2001 compared with 23% in 2004. And slightly fewer respondents had been using their alternative modes more than five years; 49% in 2001 compared with 54% in 2004.

Table 21
Length of Time Using Alternative Mode

Time Using Alternative Modes	2004 SOC Percentage (n=1,719)		2001 SOC Percentage (n=1,854)
Less than one year	23%		28%
12 – 24 months	23%		23%
25 – 36 months	9%	54%	49%
37 – 60 months	12%		
More than 60 months	33%		
Mean duration	**70 months**		**N/A**
Median duration	**36 months**		**N/A**

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 22 displays these results.

Table 22
Modes Used Before Starting Current Alternative Modes
(n=1,749)

Alternative Mode	Percentage *
Drive alone	40%
Bus	11%
Metrorail	8%
Carpool/vanpool	7%
Bike/walk	6%
Commuter rail	1%
CWS/TC	3%
Always used this mode	12%
Not working in DC area then	17%

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

The most common previous mode was drive alone; 40% of respondents said they previously drove alone to work one or more days. About one in five respondents (19%) said they previously rode either a bus (11%) or train (8%) to work and seven percent said they had carpooled or vanpooled before switching to their current alternative mode.

Carpool and Vanpool Occupancy – The average number of occupants in respondents' carpools and vanpools were 2.6 and 10.0 people respectively. Overall average pool occupancy was 2.9. The carpool occupancy was equal to the 2.6 person average from the 2001 SOC survey, but the vanpool average dropped from 11.4 total riders in 2001. This drop reflected the shift to lower-passenger mini-vans. In 2001, 58% of vanpoolers said their vans carried 12 or more passengers. In 2004, only 37% of vanpoolers rode in vans with 12 or more passengers.

Access Mode to Alternative Mode Meeting Points – Table 23 presents how carpoolers, vanpoolers, buspoolers, and transit riders traveled to where they met their rideshare partners or where they started their transit trip. Nearly four in ten respondents (39%) walked to the meeting place. Transit riders were most likely to walk; 83% of bus riders and 43% of Metrorail riders said they used this method to get to the meeting point.

Table 23
Means of Getting from Home to Alternative Mode Meeting Place
(n=1,577)

Access Mode to Alternative Mode	Percentage
Walk	39%
Picked up at home	15%
Drive to a central location (e.g., Park & Ride)	18%
Drive alone to driver's/passenger's home	11%
Bus/transit	9%
I am the carpool/vanpool driver	5%
Dropped off/another CP/VP	1%
Other*	1%

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

About 15% said they were picked up at home by the carpool or vanpool driver and nine percent of respondents said they took transit to the meeting point. Five percent said they drove to the location, but then continued on as the carpool/vanpool driver. One percent said they were dropped off, for example by a spouse or other household member.

More than a quarter of respondents (29%) said they drove to the meeting point but left their cars there. This is significant, because a large proportion of auto emissions are produced during the first few miles of a vehicle trip, when the engine is cold. Even though these trips generally were short, they must be reflected in an air quality analysis.

Distance to Alternative Mode Meeting Point – As shown in Table 24, access trips to alternative mode meetings points tended to be short. Respondents traveled an average of 3.1 miles. The majority of respondents (59%) traveled one mile or less to the meeting point. Another 26% said they traveled between two and five miles. Only 15% of respondents traveled more than five miles.

Table 24
Distance Traveled from Home to Alternative Mode Meeting Point
(n=1,230)

Distance	Percentage
1 mile or less	59%
2 miles	10%
3 miles	7%
4 to 5 miles	9%
6 to 10 miles	10%
11 miles or more	5%

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 another alternative mode, other than the mode they were currently using.

Approximately one in five respondents (22%) 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 2001 (25%). Responses to this question are shown in Table 25 for both 2004 and for 2001.

In 2004, train was the alternative mode mentioned most frequently; more than half of respondents (57%) used or tried either Metrorail (52%) or commuter rail (5%). One-third of respondents (32%) tried or used bus and about 14% tried or used a carpool. Smaller percentages said they had tried walking (7%) or biking (6%). About one percent said they tried vanpooling. The results of modes tried/used in 2001 were very similar to the 2004 results.

Table 25
Previous Use of Alternative Modes and Modes Used/Tried

Alternative Modes Used/Tried	2004 SOC Percentage * (n=1,350)	2001 SOC Percentage * (n=1,500)
Modes used/tried		
Train - Metrorail	52%	55%
Train - commuter rail	5%	
Bus	32%	33%
Carpool	14%	14%
Walk	7%	6%
Bicycle	6%	3%
Vanpool	1%	<1%

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

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 26 indicates that 45% of these respondents used these modes for less than one month or used them "occasionally/once." Abut four in ten (42%) used or tried the mode for one month to one year. The remaining 13% used these other alternatives for more than one year.

Table 26
Length of Time Using Alternative Modes Used/Tried in Past Two Years
(Modes Not Used Currently)
(n=1,198)

Time	Percentage	Time	Percentage
Occasionally/once	34%	7 – 12 months	9%
Less than 1 month	11%	13 – 23 months	3%
1 – 6 months	33%	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 21. 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 27. 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).

Table 27
Reasons for Using Alternative Modes

Reasons	Percentage of Current Users (n=1,749)	Percentage of Past Users/Trial Users (n=1,350)
Commute related reasons		
- Save time	18%	13%
- Save money	14%	10%
- Avoid congestion	7%	8%
- Tired of driving	6%	8%
- No parking, parking expense	3%	3%
- CP/VP partner available	2%	1%
- Financial incentive offered	1%	0%
- Too stressful, too much traffic	1%	0%
Personal circumstances reasons		
- Changed jobs/work hours	16%	6%
- No vehicle available	11%	25%
- Moved to new residence	9%	2%
- Always used	7%	3%
- Employer/worksite moved	3%	2%
- Spouse started new job	2%	0%
- Get exercise	2%	3%
- Stay with family/children	1%	0%
- Convenient, close to work	1%	4%
- Car became available	1%	2%
- Weather	0%	8%
Other	8%	11%

*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

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 money" (18%), "save time" (14%), "avoid congestion" (7%), and "tired of driving" (6%). Smaller percentages of respondents said they didn't have parking or had to pay a parking charge (3%), or because they "found a carpool or vanpool partner" (2%). The top personal circumstance reasons included: "changed jobs or work hours" (16%), "no vehicle available" (11%), or "moved residence" (9%).

Respondents Who Used or Tried Other Alternative Modes – The last column of Table 27 shows reasons given by drive alone respondents who tried or used an alternative mode in the past and respondents who had used an alternative mode other than one they were using at the time of the survey. In other words, these were reasons given for using modes that respondents had tried/used, but were no longer using. The top reasons generally mirror those that respondents gave for why the used their current alternative mode. To "save time" (13%), "save money" (10%), "avoid congestion" (8%), or "tired of driving" (8%) were the most important commute-related reasons.

But these respondents were much more likely to note, "no vehicle available" (25%) as the reason, than were current alternative mode users (11%). It is also interesting that eight percent 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 28.

The most frequently mentioned reasons why respondents did not continue using an alternative mode included: that it was "too inconvenient" (20%), "took too much time" (20%), or because the respondent made a "job change" (13%). About one in ten (11%) said they intended to use the mode only temporarily, for example, because the car was in the repair shop. Two reasons each were noted by about eight percent of respondents: a "car became available" or because the alternative mode "costs too much."

Table 28
Reasons for Not Continuing Other Alternative Modes

(n=1,212)

Reasons	Percentage*
Too inconvenient	20%
Took too much time	20%
Job changes	13%
Only used temporarily (e.g., car was in shop)	11%
Car became available	8%
Costs too much	8%
Need vehicle during/after work	5%
Weather related	4%
Vehicle unavailable/unreliable	4%
Moved residence	3%
Safety concerns	2%
Bus/rail schedule/route change	2%
Child-related activities	2%
Lost carpool partner	2%
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

3-C TELECOMMUTING

The SOC survey also explored respondents' telecommute experience. This section presents these results for 2004. 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*." This was a different definition than had been used in the 2001 survey; "*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*."

It is important to note this change, because it is likely that both the total number of respondents who were counted as telecommuters and some characteristics of the telecommute sample differed, possibly substantially, from the results that would have been obtained had the 2001 definition been retained.

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 and workers, such as sales or equipment repair staff, who travel to multiple customer locations during the course of the day.

An important issue is that the 2001 definition could have included respondents who worked a portion of the normal workday at home, but traveled to the regular workplace for another part of the day. For example, a respondent who worked at home in the morning while waiting for a delivery, then traveled to the regular work place in the afternoon could be counted in the 2001 definition, but not in the 2004 definition. The examples cited above are not generally considered telecommuting for transportation-related purposes, thus the 2004 definition was rewritten to exclude these workers.

To enable a valid comparison between 2004 and 2001, the telecommute results from the 2001 survey were revised to exclude respondents who would not have been counted as telecommuters under the 2004 definition. The sections that follow present some comparisons of the 2004 data to results from 2001. Additional analysis of the telecommuting differences between 2001 and 2004 will be undertaken during the TERM impact analysis in the spring of 2005.

Current and Potential Telecommuting

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 12.3% of all regional workers said they telecommute, either regularly or occasionally. About one in sixteen teleworkers (6%) said they telecommute every day that they work.

But telecommuters accounted for a higher percentage, 12.8%, 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 12.8% of regional commuters telecommuting represents a significant increase over the 2001 level of 11.3%, as measured though the revised telecommute results from the 2001 SOC survey.

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 quarter of these respondents (25%) replied that this would be possible.

Respondents for whom telecommuting was a possibility were asked if they would want to telecommute. About a quarter (26%) said they were not interested in telecommuting, but nearly three-quarters, said they would be interested in telecommuting on an occasional basis (48%) or a regular basis (26%). These interested respondents equal about 18% of non-telecommuters who are potential telecommuters.

These results suggest additional telecommute growth potential exists in the Washington metropolitan region. Table 29 summarizes the telecommute status of all respondents who are "commuters," that is, not self-employed/work at home full-time. As noted before, 12.8% of regional commuters are currently telecommuting. But an additional 18% of non-telecommuters, equating to 16% of all regional commuters "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 (6%) or that their job responsibilities would not allow telecommuting (65%).

Table 29
Summary of Current and Potential Telecommuting
All Respondents who are not Self-Employed/Work at Home
(n=6,896)

Telecommuting Status	Percentage
Currently telecommuting	12.8%
Not telecommuting	
- Job responsibilities allow telecommuting and INTERESTED in telecommuting ("could and would")	16%
- Job responsibilities allow telecommuting, but NOT INTERESTED in telecommuting	6%
- Job responsibilities would NOT allow telecommuting	65%

Telecommuting by Personal Characteristics – Telecommuting is not distributed equally by demographic group. Table 30 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., 14% of men and 11% 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., 17% of non-telecommuting women would telecommute). Note that this should be compared against the 18% of all non-telecommuters in the region who "could and would."

Some demographic groups telecommute more than do others. For example, 14% of men telecommuted, compared to 11% of women and whites were more likely to telecommute than were other ethnic groups. Telecommuting appeared to increase with age up to the 35-44 years old group, peaking at 15%, then declining as age increased further. And telecommuting increased as income increased; 17% of workers with household incomes between $100,000 and $139,999 telecommuted, compared with less than six percent of workers with incomes under $60,000. And 21% of respondents with annual household incomes of $140,000 or more telecommuted.

Table 30
Telecommuters by Demographic and Travel Characteristic

Demographic Group	All Respondents		Non-Telecommuters	
	(n=__)*	Percentage Who Currently Telecommute	(n=__)**	Percentage who "could and would" Telecommute***
Sex				
Male	3,281	14%	2,864	18%
Female	3,919	11%	3,463	17%
Ethnic Group				
White	4,940	14%	4,288	20%
Hispanic	380	11%	344	6%
Asian	234	12%	209	25%
African-American	1,106	8%	1,020	14%
Age				
Under 25 years	462	4%	447	11%
25 – 34	1,470	12%	1,284	21%
35 – 44	2,098	15%	1,790	18%
45 – 54	1,848	13%	1,626	19%
55 or older	1,086	11%	967	14%
Income				
Less than $30,000	354	4%	339	8%
$30,000 – $59,999	1,240	6%	1,167	15%
$60,000 – $99,999	1,954	12%	1,726	18%
$100,000 – $139,999	1,253	17%	1,064	22%
$140,000+	905	21%	715	24%

Table 30 (cont.)
Telecommuters by Demographic and Travel Characteristics

Demographic Group	All Respondents		Non Telecommuters	
	(n=__)*	Percentage Who Currently Telecommute	(n=__)**	Percentage who "could and would" Telecommute***
Commute Distance				
Less than 10 miles	2,085	10%	1,870	17%
10 – 29 miles	2,590	14%	2,277	21%
30 miles +	1,547	17%	1,299	20%
State of Residence				
District of Columbia	600	10%	496	19%
Maryland	3,000	12%	2500	16%
Virginia	3,600	13%	2958	19%
State of Employment				
District of Columbia	1919	13%	1,664	23%
Maryland	2288	11%	2,046	15%
Virginia	2838	13%	2,477	17%

* All respondents in the demographic group, both telecommuters and non-telecommuters

** Respondents in the demographic group who do not currently telecommute

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

As shown in Table 30 (cont.), above, telecommuting also increased with increasing commute distance. A sixth (17%) of respondents who commuted 30 miles or more telecommuted, compared with 14% of respondents who commuted between 10 and 29 miles and 10% of respondents who commuted fewer than 10 miles. Finally, Virginia and Maryland residents were slightly more likely to be telecommuters (13% and 12% respectively) than were residents of the District of Columbia (10%). And slightly larger shares of respondents who worked in the District of Columbia (13%) and Virginia (13%) telecommuted than did respondents who were employed in Maryland (11%).

Table 30 also illustrates which groups have the greatest potential for future telecommuting. That is, in which groups would non-telecommuters be most likely to telecommute in the future, if given the opportunity? The last column in the table shows percentages of non-telecommuters 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 18% average among all non-telecommuters. These included high-income respondents ($140,000 or more annual income) and respondents with long commute distances (30 or more miles). About one-quarter of non-telecommuting respondents 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 31, non-profit agencies (15%) and private employers (15%) had higher telecommuting rates than did government agencies, either state/local (6%) or federal (12%).

Generally, telecommuting increased with increasing employer size. Seventeen percent of respondents who worked for employers with 1,000 or more employees telecommuted, compared with only eight percent of respondents who worked for employers with 26-100 employees. The exception to this rule was for respondents who worked for very small employers, those with 1-25 employees. About 12% of these respondents said they telecommute. This is likely informal telecommuting, in which the employee telecommutes under an informal agreement between the employee and the supervisor, rather than a formal telecommute program.

Some occupations had higher telecommuting rates than average, including technician (21%), professional (15%), and executive/managerial (15%). Three common occupations with below average telecommute rates included administrative support (8%), service (3%), and precision craft/production (3%).

Table 31 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 18% average for all non-teleworkers, however.

Two groups with latent potential for telecommuting were employees of federal government agencies and non-profit organizations. Nearly a quarter of non-telecommuting 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 250 or more employees. About a quarter of non-telecommuters in this group said they could and would telecommute if given the opportunity. Finally, two occupations show above average telecommute opportunity: technicians (25%) and executive/managerial (23%).

Table 31
Telecommuters by Employment Characteristics

Demographic Group	All Respondents		Non-Telecommuters	
	(n=__)*	Percentage Who Currently Telecommute	(n=__)**	Percentage who "could and would" Telecommute***
Employer Type				
Private employer	3,410	15%	2,856	18%
Non-profit org.	680	15%	569	22%
State/local agency	919	6%	856	13%
Federal agency	1,550	12%	1,373	23%
Employer Size				
1 – 25	1,626	12%	1,389	16%
26 – 100	1,504	8%	1,351	16%
101 – 250	842	12%	742	19%
251 – 999	991	14%	857	25%
1,000+	1,539	17%	1,282	22%
Occupation				
Technician	512	21%	392	25%
Executive, manager	1,380	15%	1,095	23%
Professional	2,528	15%	1,448	20%
Sales	405	10%	313	15%
Admin. support	668	8%	596	15%
Service	327	3%	286	7%
Precision production	316	3%	290	7%

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

** Respondents in the group who do not currently telecommute

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

Reasons for Telecommuting – All respondents who telecommuted were asked why they started telecommuting. Responses to this question are shown in Table 32. The table also provides the results for this question from the 2001 SOC survey.

Table 32
Reasons for Telecommuting

Reasons	2004 SOC (n= 876)	2001 SOC (n= 1,025)
To save time	19%	14%
New option that became available	18%	13%
Initiated request on my own	10%	7%
Personal circumstance (weather, repairman, sick)	10%	4%
To get more work done	9%	12%
Convenient	8%	3%
To stay with family or children	7%	12%
Changed jobs/work hours	6%	6%
Tired of driving	6%	6%
Pressure/encouragement from employer	4%	9%
Save money	4%	7%
Special program at work	4%	7%
Wanting/needing quiet/uninterrupted work time	4%	5%
Avoid congestion	4%	5%
Employer/worksite moved	1%	<1%
Don't know/refused	2%	3%
Other*	5%	3%

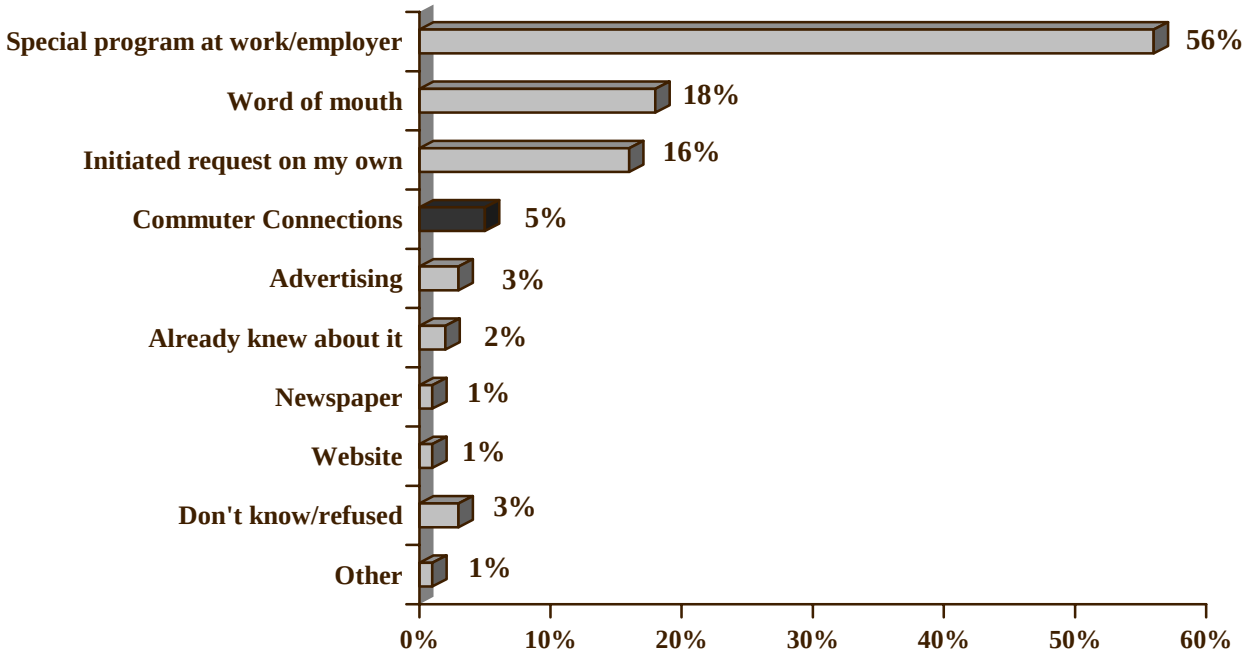
*Each response in the "Other" category was mentioned by less than one percent of respondents.

The most frequently mentioned reasons were "to save time" (19%) and that "new option that became available" (18%). About one in ten respondents said they started telecommuting to accommodate "personal circumstance" such as waiting for a repair or delivery person or because of weather conditions (10%), "to get more work done" (9%), because it was "convenient" (8%), or "to stay with family or children" (7%).

Responses in 2001 showed similar reasons, but with slightly different rankings. "Save time," "new option that became available," "personal circumstances," and "convenient" appear to have been less common reasons in 2001 and "to get more work done" and "stay with family or children" seem to be more common.

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 7.

Figure 7
Sources of Information About Telecommuting
(n=874)



About one in twenty (5%) telecommuters said they received telecommuting information directly from Commuter Connections or MWCOG. The largest source of information, by far, was "special program at work/employer," named by more than half (56%) of the respondents. About one in six telecommuters said they learned of telecommuting through "word of mouth" (18%) or "initiated the request on their own" (16%).

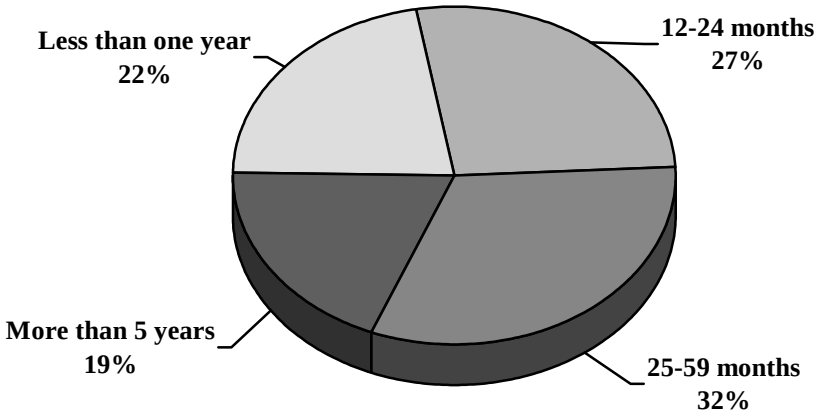
About three percent said they learned about telecommuting through advertising. Although this is not necessarily advertising from Commuter Connections, MWCOG has advertised broadly about telecommuting, so that this response could indicate additional telecommuters who learned about telecommuting from outreach 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 8, approximately half (49%) of respondents who telecommuted started telecommuting within the past two years and almost one quarter (22%) started within the past year. One third said they had been telecommuting more than five years. On average, respondents had been telecommuting about 42 months.

Figure 8
Length of Time Telecommuting
(n=865)



Formal or Informal Telecommute Arrangement – Telecommuters were asked if they telecommuted under a formal telecommute program or if it was an informal arrangements between the telecommuter and the supervisor. Respondents who did not telecommute were asked if their employer had a telecommute program, either formal or informal, even though the respondent did not use it.

About 15% of all respondents said their employer had a telecommuting program, and 20% said their employer allowed employees to telecommute under an informal arrangement between an employee and a supervisor. The majority (65%) of respondents said their employers did not have any telecommute program or that they didn't know about any program.

Arrangements for Telecommuters and Non-Telecommuters – Table 33 presents the distribution of arrangements for respondents who currently telecommuted and for those that did not.

Table 33
Formal or Informal Telecommuting Arrangements
Telecommuters vs Non-Telecommuters

Program Type	Telecommuters (n=876)	Non-telecommuters (n=6,020)
Formal program	32%	12%
Informal arrangement	62%	14%
No program/don't know	6%	74%

As indicated, telecommuters were much more likely than were other respondents to work for an employer with a formal telecommute program. Approximately one in three (32%) said they telecommuted under a formal arrangement. About 62% said they telecommuted under an informal arrangement with their supervisor. A small group (6%) said their employers did not have any telecommute program or that they didn't know about any program. These respondents were predominantly infrequent telecommuters, only 25% said they telecommuted one or more times per week, compared to nearly half (46%) of all telecommuters.

By contrast, only 12% of non-telecommuters said their employers had a formal telecommute program and only 14% said telecommuting was permitted under informal arrangements. About three-quarters (74%) said the employer had no program or they didn't know if a program existed.

Arrangement by Employer Type – The availability of telecommuting arrangements varied widely by respondents' employer types, as illustrated in Table 34.

Table 34
Formal or Informal Telecommuting Arrangements
By Employer Type

Program Type	Federal Agencies (n=1,463)	State/local Agencies (n=870)	Non-profit Organizations (n=641)	Private Employers (n=3,247)
Formal program	**34%**	9%	13%	10%
Informal arrangement	18%	12%	**27%**	**24%**
No program	48%	**79%**	60%	66%

Formal programs were most common among respondents who worked for a federal government agency. About a third of all respondents who worked for federal agencies (34%) said their employer had a formal program, compared to only about 10% for all other employers. Respondents who worked for non-profit organizations or private employers were most likely to have informal telecommuting. A quarter of respondents in these two groups said their employers permitted informal telecommuting. State/local government agencies were least likely to permit telecommuting under any arrangement. More than three-quarters (79%) of these respondents said their employer did not permit telecommuting.

Arrangement by Employer Size – Telecommuting arrangements also varied by the number of employees at respondents' worksites. These results are presented in Table 35.

Table 35
Formal or Informal Telecommuting Arrangements
By Employer Size

Program Type	1-100 Employees (n=2,987)	101-250 Employees (n=804)	251-999 Employees (n=925)	1,000+ Employees (n=1,461)
Formal program	6%	14%	19%	31%
Informal arrangement	20%	23%	24%	23%
No program	74%	63%	57%	46%

Respondents who worked for large employers were more likely to have access to telecommuting program and to have access to a formal program. More than half of these respondents said their employer had a formal program (31%) or permitted informal telecommuting (23%). By contrast, only about one quarter (26%) of respondents who worked for employers with 100 or fewer employees had access to telecommuting and only six percent of these respondents said their employers had a formal program.

The survey results suggest that use of formal programs might be increasing. Only about one-quarter (25%) of respondents who had been telecommuting four or more years telecommuted under a formal arrangement, compared to 37% of telecommuters who telecommuted less than four years. And 41% of new telecommuters (less than one years) telecommuted under a formal arrangement.

Telecommute Frequency – The frequency with which respondents telecommuted is detailed in Table 36. About a quarter of respondents who telecommuted did so infrequently and not regularly, either for special projects (10%) or less than once per month/only in emergencies (12%). About one-third (32%) said they telecommuted a few times each month. The remaining 46% telecommuted at least one day per week. About one in five respondents (19%) telecommuted three or more days per week.

On average, respondents who said they were telecommuters used this arrangement about 1.3 days per week. This overall average 1.3 days per week frequency represents a slight increase from the 1.2 days per week average estimated for telecommuting in 2001, as measured through the 2001 SOC survey (revised telecommute results).

Table 36
Frequency of Telecommuting
(n=867)

Frequency	Percentage
Occasionally for special projects	10%
Less than once per month/emergency	12%
1 – 3 times per month	32%
1 day per week	15%
2 days per week	12%
3 or more times per week	19%
Average (mean) days per week	**1.3 days**

We note that this 1.3 days per week frequency is lower than the 2.5 days per week frequency indicated earlier for respondents who telecommuted during the survey week. But the 1.3 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).

As with the rate of telecommuting, the frequency of telecommuting varied by personal and employment characteristics of respondents. Respondents in the following groups telecommuted substantially more days per week than the average of 1.3 days per week:

- Telecommuted from a location other than home 2.2 days per week
- Worked in sales occupations 1.9 days per week
- Telecommuted under a formal arrangement 1.7 days per week
- Commuted 40 or more miles one-way 1.6 days per week
- Worked for very small employers (1-25 employees) 1.6 days per week
- Women 1.5 days per week

Respondents in the following groups telecommuted fewer days per week than the 1.3 days per week average:

- Telecommuted under an informal arrangement with supervisor 1.2 days per week
- Men 1.1 days per week
- African-Americans 1.1 days per week
- Worked for Federal government agencies 1.0 days per week
- Commuted 10 to 29 miles one-way 0.9 days per week
- Worked for employers with 251 or more employees 0.9 days per week
- Respondents who worked for non-profit organization employers 0.9 days per week

Telecommute Locations – As shown in Table 37, 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%). Ten respondents (0.7%) said they telecommuted from one of the 17 telework centers located in the Washington metropolitan region.

Table 37
Telecommuting Work Place
(n=876)

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 – 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 38. The majority of respondents drove alone (69%). About a quarter used an alternative mode: carpool (13%), transit (13%), or bicycle/walk (5%).

Table 38
Access Mode to Telecommute Locations Outside the Home
(n=40)

Access Mode	Percentage
Drive alone	69%
Carpool/vanpool	13%
Transit	13%
Bicycle/walk	5%

Distance to Telecommute Location Outside the Home – About five percent of telecommuters telecommute from a location outside their homes. They traveled an average distance of 13.2 miles to these locations. The distribution by distance categories is displayed in Table 39, on the following page.

Table 39
Distance from Home to Outside Telecommuting Location

(n=31)*

Distance (miles)	Percentage
1 mile or less	11%
2 – 5 miles	20%
6 – 10 miles	18%
11 – 29 miles	36%
30 miles or more	15%
Mean*	**13.2 miles**
Median	**11 miles**

* Base and mean exclude 4 respondents who said they traveled 60 or more miles to the telecommute locations outside the home.

About half (49%) of these respondents traveled 10 miles or less to the location. A third (36%) traveled between 11 and 29 miles and the remaining 15% said they traveled 30 or more miles.

3-D AVAILABILITY OF AND ATTITUDES TOWARD TRANSPORTATION OPTIONS

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

Availability of Transportation Options

Availability of Public Transportation – Respondents who worked outside their homes were asked if they knew what public transportation companies provided service from their homes to their work. Two-thirds of respondents (68%) said that public transportation was available to them, the same percentage as reported in the 2001 SOC survey. These respondents were asked to identify specific transit companies that provided service in their areas. Responses to this question are listed in Table 40.

Table 40
Public Transportation Companies that Provide Service From Home to Work

Transit Companies	Percentage
Bus Companies	
Metrobus	53%
Ride On	11%
Fairfax Connector	7%
OmniRide	4%
Alexandria DASH	3%
THE BUS	3%
MTA Bus	2%
Fairfax Cue	1%
Loudoun Commute Bus	1%
Train Companies	
Metrorail/subway	46%
Virginia Railway Express	4%
MARC	4%
AMTRAK/ACELA	1%
Don't know specific company name	9%
Other **	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.

Not surprisingly, the two companies mentioned most frequently were those that operate throughout the region: Metrobus (53%) and Metrorail/subway (46%). Two bus companies that provide service in part of the region were noted by at least five percent of respondents: RideOn (11%), operated in Montgomery County, MD, and Fairfax Connector (7%), serving Fairfax County, VA. OmniRide (4%), Alexandria DASH (3%), and The Bus (3%), which serve Prince William County, VA; Alexandria, VA; and Prince George's County, MD, respectively, also were named as available services.

In addition to Metrorail, respondents noted availability of several commuter rail companies. Both the Virginia Railway Express (VRE), serving Northern Virginia areas, and MARC, operating several lines in Maryland, were cited by four percent of respondents. One percent of respondents said AMTRAK provided service from their home area.

Availability and Use of HOV Lanes – The survey also examine the availability and use of High Occupancy Vehicle (HOV) lanes. More than one in four (29%) of the respondents who commuted one or more days per week said there was a special HOV lane along their route to work and 28% of these commuters said they used these lanes. This equated to about eight percent of total respondents who did not work at home full-time.

Respondents who regularly used the HOV lane for commuting estimated that using the lane saved them an average of 25 minutes for each one-way trip. This result might overestimate the actual time saving, however. About 37% of respondents said they saved 40 or more minutes one-way. Additionally, 27% said the time saving was equal to or greater than the total length of their commute, in essence saying that the HOV lanes saved them at least half of the time they otherwise would have traveled.

This appears to be consistent with time saving estimates provided by regional transportation agencies. The Virginia Department of Transportation estimated that time savings on the three Virginia HOV lanes would be about 35 minutes on I-95/395, 31 minutes on I-66, and 12 minutes on the Dulles Toll Road, if the user travels the entire length of the route. And the Maryland State Highway Administration estimated the average one-way time saving on Route 50, one of the two HOV lanes in Maryland, would be less than 10 minutes.

HOV Lanes by Home Area – Table 41 shows availability and use of HOV lanes by respondents' jurisdictions of residence. Virginia residents had higher HOV availability than did residents of Maryland or the District of Columbia. At least one-third of respondents in five Virginia jurisdictions said an HOV lane was available to them and in three Virginia jurisdictions, Alexandria (47%), Stafford County (53%), and Prince William County (58%), about half of the respondents reported HOV lanes available.

By comparison, fewer than one-third of residents in any Maryland jurisdiction reported HOV availability and in only two Maryland jurisdictions, Frederick County (30%) and Montgomery County (28%), did more than 15% of respondents have access to HOV lanes.

The last column of Table 41 illustrates the use of HOV lanes by county of residence for respondents who said they had HOV access. More than a quarter (28%) of all regional respondents who had HOV access on their route to work used HOV. Further, except for Prince William and Stafford Counties in Virginia, and Frederick County in Maryland, which had use rates well above average, use of HOV lanes was relatively consistent throughout the region among residents who had access to HOV lanes. In most counties, about 20 to 25% of residents who had an HOV lane available used it to commute.

Table 41
Availability and Use of HOV Lanes
by County of Residence

County	All Respondents		Respondents With HOV Available	
	(n=___)	Percentage with HOV lane available	(n=___)*	Percentage using HOV lane
Washington metro region	6,724	29%	1,962	28%
Virginia jurisdictions				
Prince William County, VA	574	58%	333	43%
Stafford County, VA	573	53%	304	54%
Alexandria, VA	551	47%	258	26%
Fairfax County, VA	564	39%	220	27%
Loudoun County, VA	559	34%	192	28%
Arlington County, VA	538	29%	154	25%
Maryland jurisdictions				
Frederick County, MD	567	30%	166	37%
Montgomery County, MD	552	28%	153	21%
Prince George's, Co., MD	559	15%	79	19%
Charles County, MD	572	5%	30	7%
Calvert County, MD	570	4%	25	16%
District of Columbia	545	9%	48	13%

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

HOV Lane Influence on Commute Choice – HOV lanes appear to have an impact on choice of commute modes. More than half (58%) of the respondents who used the lanes for commuting said availability of the HOV lane influenced their decision to carpool, vanpool, or ride transit for their commute. The influence on carpooling is best illustrated by the drive alone and carpool/vanpool mode shares when HOV lanes are available and when they are not.

As shown in Table 42, about 11% of respondents who said an HOV lane was available to them were carpooling or vanpooling one or more days per week, compared with only four percent of respondents who did not have access to HOV. And the drive alone rate for respondents who had access to HOV was 74%, compared to 77% for respondents who could not use HOV.

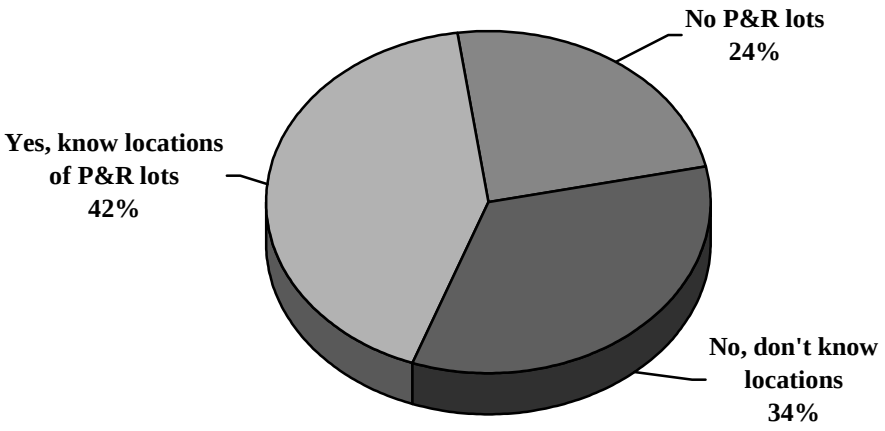
Table 42
Availability of HOV Lanes
by Respondent's Current Commute Modes (1+ days per week)

Primary Mode	HOV Lane Available * (n=1,979)	HOV Lane Not Available * (n=4,745)
Drive alone	74%	77%
Carpool/vanpool	11%	4%
Bus	4%	5%
Train	15%	12%
Bike/walk	1%	3%

* Might add to more than 100% because some respondents used more than one mode

Park & Ride Lot Availability and Use – Figure 9 depicts respondents' awareness of the locations of Park & Ride lots along their route to work. About four in ten respondents (42%) said they knew the locations of Park & Ride lots along their commuting route. About a third (34%) said they did not know the locations. A quarter of respondents (24%) said there were no Park & Ride lots along their route to work. Of those who knew the locations, 18% percent said they had used these lots when commuting during the past year. These respondents represented seven percent of the total respondents in the survey, about the same percentage of respondents who reported use of Park & Ride lots in the 2001 SOC survey.

Figure 9
Awareness of Park & Ride Lots Along Route to Work
(n=6,677)



Attitudes Toward Transportation Options

Respondents who did not ride a bus to work were asked why they did not use this service. Similarly, respondents who did not use the train and those who did not carpool or vanpool were asked why they did not use these modes. Table 43 shows reasons mentioned by respondents, grouped by mode and by three reason categories: service availability, service characteristics, and personal preferences/needs.

Table 43
Reasons for Not Riding the Bus, Train or Using Carpool/Vanpool to Work*

Reasons	Bus (n=5,823)	Train (n=5,255)	CP/VP (n=6,051)
Service Availability			
No service available in home/work area	**13%**	**37%**	N/A
Don't know if service is available/location of service	4%	3%	N/A
Don't know anyone to carpool/vanpool with	N/A	N/A	**47%**
Service Characteristics			
Takes too much time	**32%**	**21%**	4%
Bus/train/carpool partner could be unreliable/late	5%	2%	2%
Don't like to ride with strangers, prefer to be alone	4%	2%	4%
Too expensive	3%	4%	<1%
Have to transfer/too many transfers	3%	2%	N/A
Have to wait too long for service	3%	<1%	NA
Use other alternative mode	3%	1%	2%
Too uncomfortable/crowded	1%	2%	NA
Might not be safe, don't feel safe	<1%	1%	<1%
Doesn't save time	N/A	N/A	5%
Personal Preferences/Needs			
Need my car for work	**15%**	**14%**	**12%**
Work schedule irregular	8%	5%	**20%**
Trip is too long/distance too far	7%	6%	<1%
Need car before/after work	5%	4%	7%
Live close to work, can walk, use other mode	3%	2%	3%
Need car for emergencies/overtime	<1%	<1%	1%
No benefit, never thought of it	1%	<1%	1%
Other*	6%	6%	3%

*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.

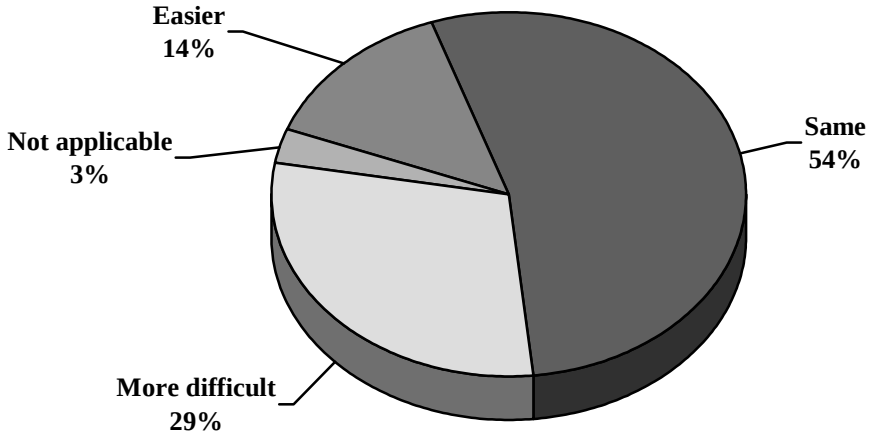
As illustrated, respondents cited some prominent reasons in each of the three categories. The top three reasons cited for each mode are shown in bold type. For example, about one in five respondents said they did not use the bus because it was not available (13%) or they did not know if it was available (4%). About two-fifths of respondents (40%) mentioned one of these reasons for why they did not use the train. And "don't know anyone to carpool or vanpool with" topped the list of reasons for respondents who did not carpool. It was named by nearly half (47%) of respondents.

Respondents who did not use bus or train also noted several characteristics of the services as barriers to their use. Primary reasons in this category included: "takes too much time," service is "unreliable," or "too expensive." Respondents were less likely to mention these reasons as deterrents to carpooling.

The top reason in the personal preferences/needs category was similar for all three modes; "need my car for work" or "need my car before or after work." "Irregular work schedules" was a significant barrier to carpooling and "trip is too long/too far" was a concern associated with bus and train use.

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 10, the majority of respondents (54%) said their commute is about the same. About three in ten (29%) said their commute was more difficult and 14% 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 10
Commute Easier, More Difficult, or Same as Last Year
(n=6,824)



Respondents who said their commute had changed were asked in what way it was easier or more difficult. The top section of Table 44 lists reasons that respondents' commutes had improved and the bottom section shows the reasons that respondents' commutes had worsened.

Table 44
Reasons for Easier or More Difficult Commute

(n=909)

Reasons	Percentage
Easier Commute (n=909)	
Shorter distance	44%
Trip is faster, takes less time	21%
Route is less congested	19%
Trip is less stressful	9%
Changed work locations or work hours	4%
Started driving alone to work	4%
Started using bus or train to work	4%
Started carpooling/vanpooling to work	2%
Started using HOV lane	2%
Other	6%
More Difficult Commute (2,038)	
Route is more congested	81%
Longer distance	11%
Trip is slower, takes more time	11%
Trip is more stressful	5%
Other	6%

Easier Commute – The most common reason for an easier commute was that it was shorter, cited by 44% of these respondents. About a fifth of respondents said either the trip was faster (21%) or the route they used was less congested (19%). One in ten respondents said the commute was less stressful. About one in ten respondents said their commute was easier because they had started using a different form of transportation for commuting. Four percent started driving alone to work but six percent improved their commute by using the bus or train (4%) or carpool/vanpool (2%). A small percent (2%) said the improvement resulted from using HOV lanes.

More Difficult Commute – An overwhelming majority (81%) of respondents who said their commute was more difficult said their route had become more congested. About a tenth of respondents said either the distance was longer (11%) or the trip took more time (11%). About five percent said the trip was more stressful.

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 45 indicates, the ease or difficulty of the commute appears to have been related to moves for at least some of the respondents.

Table 45
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	5,207	9%	29%	62%
Yes	1,650	32%	31%	36%

The majority (62%) of respondents who did not move said their commutes were about the same. About nine percent said their commute had improved and about a third (29%) said it had gotten more difficult. A similar percentage (31%) 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, 32%, 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.

3-E AWARENESS OF COMMUTE ADVERTISING AND SERVICES

Commute Advertising Recall

The next set of questions in the survey inquired about respondents' awareness of commute information advertising. Just over half (55%) 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 as reported in the 2001 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 (63%) could cite a specific message, slightly less than the 70% who could recall a message in 2001. Table 46 lists messages respondents in the 2004 survey remembered and the percentage of respondents who cited each message. It also shows similar results for the 2001 SOC survey. 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 seven percent of respondents. Smaller numbers of respondents mentioned rideshare benefit messages: "it reduces traffic" (3%), "it would help the environment" (2%), "it saves time" (2%), and "it's less stressful" (1%). Recall of all of these messages was below the recall noted in the 2001 survey. This change in awareness 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 – By contrast, recall of messages about most commute assistance services was higher in 2004 than in 2001. Almost two in ten respondents mentioned "you can call for carpool/vanpool information," nearly double the nine percent who recalled this message in 2001. And 12% of respondents recalled a specific message about Guaranteed Ride Home, much large than the three percent who noted this message in 2001. Respondents also recalled other message specifically about Commuter Connections program or service, including, "call 1-800-745-RIDE/call Commuter Connections" (6%) and "Telework Center or telecommuting" (3%).

It is noteworthy that awareness of HOV advertising experienced a dramatic drop, from 12% in 2001 to two percent in 2004. This could reflect both the current absence of HOV advertising and a high level of previous HOV advertising, when both Virginia and Maryland transportation agencies were advertising availability of HOV lanes.

Table 46
Recall and Influence of Advertising Messages

Message Recalled	2004 SOC* (n=4,014)	2001 SOC* (n=4,036)
General Ridesharing Messages		
Use the bus, train, Metrorail	7%	7%
It reduces traffic	3%	5%
It would help the environment	2%	4%
It saves time	2%	10%
It is less stressful	1%	2%
Share a ride/ridesharing	<1%	3%
Commute Program/Service Messages		
You can call for carpool/vanpool info	17%	9%
Guaranteed Ride Home	12%	3%
New trains or buses are coming	7%	4%
Call 1-800-745-RIDE/Commuter Connections	6%	5%
Wilson bridge reconstruction, Bridge Bucks	4%	----
Telework Center/telecommuting	3%	2%
Employer would give Metrochek benefits	2%	3%
HOV lanes	2%	12%
None, don't know	37%	30%
Other **	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 (62%) said they did not remember who sponsored the ad. The remaining respondents mentioned the organizations listed in Table 47. The Washington Metropolitan Area Transit Authority (WMATA, Metro) was named by 15% of respondents, but Commuter Connections or COG was a close second, cited by 13% of respondents. One or two percent of respondents noted Virginia Railway Express (VRE), the Virginia Department of Transportation (VDOT), or the Maryland Mass Transit Administration (MTA).

Table 47
Recall of Advertising Sponsors

(n=2,529)

Advertising Sponsor	Percentage
Metro, WMATA	15%
Commuter Connections, MWCOG	13%
Virginia Railway Express, VRE	2%
Virginia Dept. of Transportation (VDOT)	2%
Maryland Mass Transit Administration (MTA)	1%
Don't remember, don't know	62%
Other *	8%

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

Advertising Sources/Media – Table 48 presents the primary sources or media through which respondents heard, saw, or read commute advertising.

Table 48
Advertising Source/Media

(n=2,529)

Advertising Source/Media	Percentage *
Radio	55%
Television	25%
Newspaper	12%
Sign on transit vehicle, or at bus stop or Metro station	9%
Website/internet	2%
Billboard/ad on side of the road	2%
Postcard in the mail	1%
Don't remember, don't know	3%
Other **	4%

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

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

More than half (55%) of respondents who recalled an ad said they heard it on the radio and a quarter (25%) said they saw the ad on television. About 12% mentioned newspaper and nine percent 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 68% of respondents who mentioned ads about contacting Commuter Connections, by 62% of respondents who recalled ads for GRH or telecommuting, and by 57% 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 (18%) 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 49 presents the advertising messages that seemed more and less persuasive than average.

Table 49
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	96	28%
HOV lanes	83	26%
New trains or buses are coming	268	25%
It reduces traffic	115	24%
Call 1-800-745-RIDE/Commuter Connections	222	20%
Use the bus, train, Metrorail	284	20%
It would help the environment	64	19%
Guaranteed Ride Home	1,823	19%
Employer would give Metrochek benefits	68	19%
All messages	**2,394**	**18%**
Telework Center/telecommuting	1,193	18%
You can call for carpool/vanpool info	594	17%
It is less stressful	47	16%
Wilson bridge reconstruction, Bridge Bucks	146	13%

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

The most persuasive messages appealed to respondents' interest in saving time or reducing congestion. About a quarter of respondents said they were more likely to consider using an alternative after hearing ads about "save time," "HOV lanes," "it reduces traffic," or "new buses and trains are coming." 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 25% of train riders said they were likely to consider using an alternative after hearing the ads, compared with only 17% 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 (20%) of these respondents said they did take some action. Specific actions noted are presented in Table 50.

Table 50
Actions Taken to Change Commute After Hearing or Seeing Commute Advertising

(n=495)

Actions Taken	Percentage*
Looked for commute info on the internet	5%
Asked family member or co-worker for commute info	4%
Contacted local/regional organization for commute info	2%
Looked for a carpool/vanpool partner	2%
Sought info about commute service (e.g., GRH, HOV, telework)	1%
Tried/started using alternative mode	2%
Changed route to work	1%
No action	80%
Don't know	3%
Other **	3%

* 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 one in ten respondents said they sought information about commuting on the internet (5%), from a family member or co-worker (4%), or from a regional or local commuter service organization (2%). Two percent said they looked for a carpool partner and one percent said they inquired about a specific commute service, such as HOV lanes, GRH, or telecommuting.

Two percent said they tried or started using an alternative mode for commuting, but this was only eight respondents, so very little further analysis can be done on this small sample. Of the eight respondents, four tried or started using the train, three tried or started using the bus, and one started carpooling. Prior to starting these new modes, six of the respondents had been driving alone to work, one had been using Metrorail, and one had not been living in the region.

Influence of Ads on Commute Change Actions – More than two-thirds (69%) of respondents who had taken some action said the advertising they saw or heard encouraged the action. And more than 70% of respondents 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.

This conclusion is supported by results of one additional question asked in this section about commute advertising. Respondents who sought information but had not made a commute mode change were asked how likely they were to try a form of transportation other than driving alone for their commute within the next year. As shown in Table 51, 25% said they were very likely and 36% said they were somewhat likely to try an alternative mode. This is likely an overstatement of actual future changes, but it suggests that an initial effort to seek information might lead to commute changes at a later time.

Table 51
Likely to Try Using an Alternative Mode Within the Next Year

(n=60)

Likelihood	Percentage
Very likely	25%
Somewhat likely	36%
Not at all likely	40%

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 34% 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.

GRH Program Advertising – Next, all respondents were asked if they had heard, seen, or read advertising about GRH in the past six months. About half (48%) of 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 56% 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 three percent of these respondents said they had sought information and another three percent said they registered for a GRH program. The remaining 94% of respondents said they did not pursue more information about GRH or register.

HOV Lane Advertising – Lastly, respondents who had mentioned seeing HOV lane ads were asked if they sought information about HOV lanes or started using HOV lanes after seeing or hearing the ads. Three of the 80 respondents who were asked this question said they had sought HOV information and one respondent had started using the HOV lanes for commuting.

3-F AWARENESS AND USE OF COMMUTER ASSISTANCE RESOURCES

Awareness of Commuter Assistance Numbers/Websites

The next set of questions in the survey investigated commuters' knowledge and use of regional commute assistance services. First, respondents were asked if they 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, 46% of respondents said they knew such a number existed. This was higher than the 33% of respondents who said, in the 2001 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 (38%) or that they did not know if a phone number or web site existed (16%). 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 52.

Table 52
Potential Sources of Commute Information

(n=3,804)

Information Source	Percentage
Internet	58%
Phone book, yellow pages	10%
Television	6%
Newspaper ads	3%
Word of mouth, friend, co-worker	2%
Newspaper article	2%
Radio	2%
Library	2%
Employer	1%
Other *	9%

* 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 (58%) mentioned this source. The second most common response, named by 10% of respondents, was the phone book or yellow pages, followed by television, named by six percent. Other

possible sources, named by one or two percent of respondents, included: newspaper ads or articles, word of mouth, radio, library, 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 (33%) could name a specific number or web site. Slightly over six percent named a number or web site sponsored by Commuter Connections or MWCOG and about 18% named a WMATA phone number or web site. Other individual numbers or web sites were named by fewer than one percent of respondents who said they knew of such a resource.

Table 53 summarizes the awareness of all numbers/web sites, as percentages of the regional population. About 15% of regional commuters could name a specific web site or number. About three percent could name a Commuter Connections number (1.5%) or web site (1.3%) as the source of regional commute information. Commuter Connections was second only to WMATA as a regional information source.

Table 53
Recall of Regional Commuter Assistance Telephone Number or Web site
(n=7,200)

Number or Web site		Percentage*
Not aware of phone number/web site		38%
Don't know if a phone number exists		16%
Aware of phone number/web site, but cannot name it		31%
Aware of phone number/web site and can name it		15%
Telephone numbers recalled:		
1-800-745-RIDE (7433)	**Commuter Connections/COG**	**1.5%**
202-637-7000	METRO, WMATA	1.4%
301-565-5870	Montgomery Transit Info Call Center	0.2%
703-324-1111	Fairfax County Ridesources	0.1%
Web sites recalled:		
www.mwcog.org		**0.2%**
www.commuterconnections.org		**0.5%**
www.commuterconnections.com		**0.6%**
wwww.wmata.com		6.8%
www.vre.org		0.3%
Other**		3.0%

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

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

When asked how they found out about the web sites/numbers they named, almost half (43%) of respondents said they learned about it from radio ad and 10% mentioned the television as the source. About one in eight (15%) cited the internet and nine percent mentioned a sign or billboard. Six percent said they learned about the number or web site by word of mouth and about five 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 a quarter (25%) of respondents who knew about Commuter Connections' 800 number said they had used it and 42% of respondents who named a COG web site 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 about six percent of respondents who did not recall seeing any advertising.

Use of these resources varied by respondents' current modes. Table 54 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; 20% of all regional train riders, 18% of bus riders, and 17% of bicyclists/walkers had contacted a web site or number. About one in ten carpoolers/vanpoolers and six percent of drive alone respondents had used any regional commute information resource in the past year.

Table 54
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=691)	20%	17%	2%
Bus (n=298)	18%	15%	2%
Bike/walk (n=143)	17%	14%	0%
Carpool/vanpool (n=451)	9%	6%	2%
Drive alone (n=4,952)	6%	4%	0.6%

As shown in the third column of Table 54, 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 much more likely to be used by respondents who were using an alternative mode at the time of the survey. About two percent of carpool/vanpool respon-

dents and those who used a transit mode said they contacted Commuter Connections, compared with less than 1% of respondents who were primarily driving alone at the time of the survey.

It is possible that some respondents who used alternatives at the time of the survey and who contacted a commuter assistance number or web site used the information they received to began using an alternative or for occasional use of an alternative mode. As shown in Table 55, respondents who used the number or web site and who were using an alternative mode at the time of the survey had been using their current alternative mode for a shorter time than had respondents who did not use these information resources. A quarter (26%) of respondents who contacted the numbers/web sites within the past year said they started using their current alternative mode within the past year, compared with 17% of respondents who did not use the number or web site.

Table 55
Used Commuter Assistance Numbers/Web sites
by Time Using Current Alternative Mode Use

Used Number/Web site	(n=___)	Time Using Current Alternative Mode		
		Less than 1 year	12-35 months	3 or more years
Yes	289	26%	29%	45%
No	77	17%	27%	56%

The remaining respondents who had used their current alternative modes before contacting the information number/web site might have obtained information or assistance to continue using an existing alternative or to consider changing to a different alternative mode. But the survey data do not allow these possibilities to be tested.

Awareness of Commuter Connections Program

The last series of questions in the "awareness" section of the questionnaire 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, six 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 60% 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 re-

spondents who worked for small employers. About 56% of respondents who worked for employers with 100 or fewer employees knew of Commuter Connections, compared with 65% respondents who worked for employers with more than 100 employees.

And respondents were more likely to know abut Commuter Connections if their employers offered some types of commute services at the worksite. About 61% of respondents whose employers provided these services said they had heard of Commuter Connections, while only 47% of employees whose employers did not offer on-site commute services had heard of the program. This suggests that employers might be promoting Commuter Connections services as part of a worksite package.

Respondents who had heard of Commuter Connection also were more likely to be longer distance commuters. About 65% of commuters who traveled 10 or more miles to work said they had heard of Commuter Connections, compared with only 55% of commuters who traveled short 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 56, 74% of respondents who had seen or heard commute advertising said they knew of Commuter Connections, compared with only 42% 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 56
Heard of Commuter Connections
By Heard, Seen, or Read Commute Advertising

(n=4,133)

Heard/Saw Commute Ads	Heard of Commuter Connections	
	Yes	No
Yes (n=3,892)	74%	26%
No (n=2,964)	42%	58%

Referral Sources to Commuter Connections Program – Table 57 displays the methods by which respondents heard about Commuter Connections. More than half (56%) of respondents cited the radio as their source of information and about one in five (19%) named television. Word of mouth/referrals and sign/billboard each were named by about five percent. Smaller percentages cited other sources, including: newspaper ad or article (4%), internet (2%), employer (2%), or brochure (1%). About one in ten respondents (10%) said they didn't remember how they heard about Commuter Connections.

Table 57
Commuter Connections Program Referral Sources

(n=4,133)

Information Source	Percentage
Radio	56%
Television	19%
Word of mouth, friend, co-worker	5%
Sign/billboard	5%
Newspaper ads/article	4%
Internet	2%
Employer	2%
Brochure	1%
Don't know	10%
Other *	4%

* 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 58.

Table 58
Awareness of Commuter Connections Services

(n=4,133)

Commuter Connections Services	Percentage
Guaranteed Ride Home (GRH)	40%
Rideshare (carpool/vanpool) information	28%
Help finding carpool/vanpool partners	16%
Transit route/schedule information	5%
Telecommute information	2%
Don't know	36%
Other *	1%

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

An encouraging finding was that respondents largely cited services that Commuter Connections actually does provide. About one third (36%) of respondents said they didn't know specific services, but 40% knew that Commuter Connections sponsored a GRH program and more than four in ten knew the organization offered either general rideshare information (28%) or help finding a carpool or vanpool partner (16%). About five percent said Commuter Connections offered transit route and schedule information, information that can be accessed through links on Commuter Connections' web site. Two percent knew that Commuter Connections provided telecommute information.

3-G COMMUTER ASSISTANCE SERVICES PROVIDED BY EMPLOYERS

Services Offered by Employers

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

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

This section presents results regarding respondents' availability and use of these services in 2004. Results also are presented for 2001, as reported in the 2001 SOC survey. It is important to note that in 2004, the series of questions on this topic was altered. In 2001, respondents were asked if the employer offered each of a series of commute services, then were asked to name any services they had used. In 2004, respondents were asked a two-question series about each service: did the employer offer it and, if it was offered, did the respondent use that service. It is likely that this approach could have resulted in higher recall of use for some services in 2004 than was noted in 2001, with the single, non-service specific, question about service use.

Incentives/Support Services – Over half of the respondents (53%) said their employer offered one or more of the incentives or support services shown in Table 59.

Table 59
Alternative Mode Incentives and Support Services Offered by Employers

Alternative Mode Incentives and Support Services	Employer Offered Service *	
	2004 SOC (n=6,866)	2001 SOC (n=6,860)
Metrochek/other subsidies for transit/vanpool	31%	29%
Information on commute options	22%	25%
Preferential parking for CP/VP	16%	19%
Bike/pedestrian facilities or services	14%	9%
GRH for emergencies/unscheduled overtime	12%	19%
Financial incentives/subsidies for CP	4%	7%
None – employer doesn't offer any services	47%	49%

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

About a third of employers (36%) offered one or two of these services. An additional 16% offered three or more services. The most commonly offered services were Metrochek/other subsidies for transit/vanpool, provided by 31% of employers, and information on commuter transportation options, offered by 22% of employers. About one in six respondents said their employers offered preferential

parking (16%), services for bikers and walkers (14%), or GRH (12%). About four percent said their employers offered carpool subsidies.

As shown by the last column of the table, availability of transit/vanpool subsidies and bike/pedestrian facilities appeared to have risen since 2001, as reported in the 2001 SOC survey, while availability of commute information, preferential parking, and carpool subsidies appeared to have dropped. The percentage of respondents who said their employers offered GRH also dropped since 2001. This could indicate a shift away from employer GRH services to Commuter Connections' regional GRH program.

Parking Facilities and Services – Respondents also were asked about the parking services available at their worksites. These results are shown in Table 60.

Table 60
Parking Facilities and Services Offered by Employers

Parking Facilities and Services	Employers Offering Service	
	2004 SOC (n=6,866)	**2001 SOC** (n=6,860)
Free on-site parking	66%	65%
Free off-site parking	3%	3%
Employee pays all parking charges	21%	23%
Employee and employer share parking charge	6%	6%
Parking discounts for CP/VP (2004, n=1,752) (2001, n=1,985)	14%	14%

The majority of respondents (66%) said their employers provided "free parking" at the worksite. An additional 3% said they had access to "free parking off-site." Just under three in ten respondents said they had to pay at least part of the cost of parking; 21% paid the total cost and 6% paid a portion of the cost with the balance paid by their employers. The availability of free parking appears to be the same as 2001; 66% of respondents said they had access to some free parking in 2004, compared with 65% in 2001.

Services Offered by Employer Type – Respondents who worked for federal agencies were most likely to have incentives/ support services available at their worksites; 86% of federal employees said they had commuter services, compared with 61% of respondents who worked for non-profit organizations, and 45% of respondents who worked for state/local agencies. Respondents who worked for private employers were least likely to have incentives/support services; only 42% had services.

Table 61 present a comparison of the percentages of employers that offered various incentives/support services and parking services by employer type.

Table 61
Commuter Services/Benefits Offered
by Employer Type

Commuter Service/Benefit	Percentage of Employers Offering Services *			
	Federal (n=1,546)	**State/local** (n=918)	**Non-profit** (n=678)	**Private** (n=3,371)
Incentives/Support Services				
Metrochek/transit/VP subsidy	72%	18%	34%	18%
Commute information	43%	18%	21%	15%
Preferential parking	42%	11%	11%	8%
Bike/walk services	26%	15%	15%	10%
GRH	7%	13%	12%	13%
Carpool subsidy	8%	3%	4%	3%
Parking Facilities/Services				
Free parking (on-site or off-site)	59%	77%	56%	74%
Employee pays some or all of the parking charge	36%	21%	39%	23%
No parking/don't know	5%	2%	5%	3%

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

Commute Incentives/Support Services – Not surprisingly, Federal agency employees also had greater access than other respondents to individual incentive/support service. This was especially true for transit/Vanpool subsidies, which were offered to 72% of Federal employees, but less than one in five employees of private firms and state/local agencies. Commute information and preferential parking also were disproportionately available to Federal agency employees. The single exception was in GRH; only seven percent of Federal agency employees reported this service, which was offered by 12-13% of other types of employers.

Parking Services – Federal agency employees and employees of non-profit organizations were least likely to have free parking, either on-site or off-site. About 59% of respondents who worked for Federal agencies and 56% of respondents who worked for a non-profit said their employer provided free parking. The remaining four in ten respondents either had no parking at all or had to pay all or part of the cost of parking. By contrast, 77% of respondents who worked for state and local agencies and 74% of respondents who worked for private employers said they had free parking.

Commuter Services Offered by Employer Size – Large employers were more likely to offer commuter services than were small employers. Only one-third (35%) of respondents who worked for employers

with 100 or fewer employees and half (51%) of respondents who worked for employers with 101-250 employees said they had any services. By contrast, two-thirds (65%) of respondents employed by large (251-999 employees) employers and more than three-quarters (78%) of respondents who worked for very large firms (1,000+ employees) had one or more employer-provided commuter service. Table 62 compares availability of specific commuter assistance services by employer size.

Table 62
Commuter Services/Benefits Offered
by Employer Size (number of employees)

Commuter Service/Benefit	Percentage of Employers Offering Services *			
	1-100 (n=3,130)	**101-250** (n=842)	**251-999** (n=991)	**1,000+** (n=1,539)
Incentives/Support Services				
Metrochek/transit/VP subsidy	16%	31%	45%	56%
Commute information	10%	23%	29%	43%
Preferential parking	5%	11%	21%	38%
GRH	14%	13%	11%	9%
Bike/walk services	6%	15%	20%	27%
Carpool subsidy	2%	4%	5%	7%
Parking Services				
Free parking (on-site or off-site)	74%	72%	66%	60%
Employee pays some or all of the parking change	23%	25%	31%	36%
No parking, don't know	3%	3%	3%	4%

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

Commute Incentives/Support Services – In general, respondents had greatest access to each incentive/support service if they worked for a large employer. This trend of increasing services with increasing size was particularly evident with transit/VP subsidies, commute information, and preferential parking, services offered by four in ten or more employers with 1,000 or more employees, but only one in ten employers with 100 or fewer employees. The one exception to this rule was for GRH, which had exactly the reverse trend; 14% of small employers offered GRH, compared with only 9% of employers with 1,000 or more employees.

Parking Services – Respondents who worked for large employers were less likely to have free parking. Only about six in ten respondents who were employed by employers with 1,000 or more employees had free parking, compared with more than seven in ten respondents who worked for employers with 250 or fewer employees.

Services Offered by Employer Location – Finally, respondents whose employer was located in the District of Columbia were most likely to have commuter services at their workplaces. About two-thirds of these respondents (65%) cited at least one service. By contrast, only about two-fifths of respondents who worked in either Maryland (39%) or Virginia (44%) had access to these services from their employers. Table 63 compares availability of individual commuter assistance services by the state in which the employer was located.

Table 63
Commuter Services Offered by Employer Location (State)

Commuter Service/Benefit	Percentage of Employers Offering Service *		
	DC (n=1,919)	**MD** (n=2,288)	**VA** (n=2,836)
Incentives/Support Services			
Metrochek/transit subsidy	51%	20%	22%
Commute information	25%	19%	19%
Preferential parking	18%	13%	15%
GRH	12%	11%	12%
Bike/walk services	17%	11%	13%
Carpool subsidy	5%	3%	3%
Parking Services			
Free parking (on-site or off-site)	35%	78%	78%
Employee pays some or all of the parking charge	56%	13%	14%
No parking, don't know	9%	9%	8%

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

Commute Incentives/Support Services – Differences among state sub-regions were especially notable for availability of transit subsidies and free parking. In the District, more than half (51%) of respondents said their employers offered Metrochek or another transit or vanpool subsidy, compared with about one-fifth of respondents employed in Maryland (20%) or Virginia (22%).

Parking Services – Dramatic differences between respondents who worked in different states also are evident for parking availability. Only about a third (35%) of respondents employed in the District of Columbia said they had free parking, compared to more than three-quarters in Maryland (78%) and Virginia (78%). More than half of respondents who worked in the District said they paid all or part of the cost for parking if they drove to work, while only 13-14% of respondents who worked in Maryland or Virginia paid for parking.

Use of Commuter Assistance Services/Benefits

Respondents whose employers offered incentives/support services were asked if they had ever used these services. There results are provided in Table 64.

Table 64
Employer-Provided Incentives/Support Services
Employers Offering and Employees Who Used Services

Incentive/Support Service	Percentage of Respondents Who Used Services	
	(n=__)**	Percentage *
Metrochek, VP/transit subsidy	2,089	41%
Commute information	1,380	45%
Preferential parking	1,091	20%
GRH	864	25%
Bike/walk services	909	16%
Carpool subsidy	273	18%

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

** Base equals the number of respondents whose employers provides these services

The most commonly used incentives/support services were commute information, used by 45% of respondents whose employers offered this service and Metrochek/transit or vanpool subsidy, used by 41% of respondents who had access to this benefit. About a quarter (25%) said they had used GRH and one in five had used preferential parking. And one in six respondents who were offered bike/walk services (16%) or carpool subsidies (18%) had used these benefits.

Commute Mode by Commuter Assistance Services/Benefits Offered – Table 65 shows the percentages of respondents who used various commute modes by whether or not their employer provides commuter assistance services or benefits. The results are divided into the two commuter service categories used in several previous tables: alternative mode incentives and support services, and parking services, specifically, free parking.

As the table clearly illustrates, respondents whose employers provided alternative mode incentives and support services were less likely to drive alone (63%) than were respondents whose employers did not provide these services (81%). Respondents who had these services at their worksites used all alternative modes at higher rates than did respondents who did not have these services. Train use was particularly higher; 18% of respondents whose employers offered incentives/support services rode the train to work, compared with six percent of respondents whose employer did not offer these services.

Table 65
Current Primary Commute Mode (3+ days per week)
by Commuter Services/Benefits Offered

Services/Benefits Offered	(n=___)	Current Primary Commute Mode				
		DA	CP/VP	Bus	Train	B/W
Incentives/Support						
Yes	3,497	63%	7%	5%	18%	2%
No	3,165	81%	4%	3%	6%	2%
Free, On-site Parking						
Yes	4,895	86%	4%	3%	5%	2%
No	1,752	47%	9%	9%	32%	3%

These differences were significant at the 95% confidence level, but it is not possible to say that the availability of these services was the only reason, or even the primary reason, for the differences in mode use. As noted before, employers in the District of Columbia were much more likely than were employers in Maryland or Virginia to offer commuter assistance services and drive alone rates were much lower for respondents who work in the District (47%) than for residents who work in Maryland (87%) or Virginia (86%).

But respondents who work in the District would be faced with greater impediments to driving alone, such as congestion, longer commute distances, and parking charges, and greater availability of commute options, such as transit, than would be experienced by workers outside the District. Any of these factors might have been at least as important in influencing respondents' commute mode choices.

The table also presents a comparison of mode use rates for respondents who had free, on-site parking and those who either had to pay for parking or who had no parking at all. The difference in drive alone rates for these two groups was dramatic; 86% of respondents who had free parking drove alone, compared with less than half (47%) of respondents who did not have this benefit. Respondents who had to pay for parking used all alternative modes at higher rates than did respondents who had free parking. The difference was especially striking for use of the train; train mode share was more than six times as high for respondents who did not have free parking as for respondents who did.

Many other surveys and research studies have documented the important role parking availability and cost play in commute decisions. But as was noted above, many factors influence commuters' mode choice.

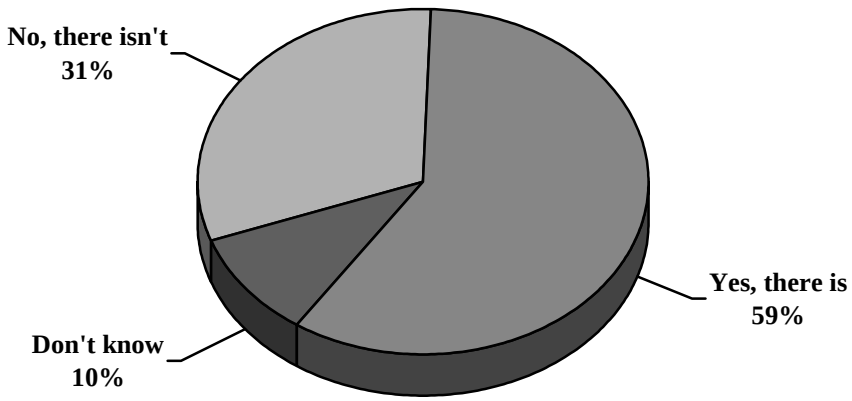
3-H GUARANTEED RIDE HOME

Since 1997, Commuter Connections has offered Guaranteed Ride Home to eliminate alternative mode users' fear of being without transportation in the case of an emergency. The program provides free rides in a taxi or rental car in the event of an unexpected personal emergency or unscheduled overtime. Some employers also offer GRH programs, as was shown in the previous section of this report.

Awareness and Use of GRH

Awareness of GRH – Survey respondents who did not work at home all the time were questioned on their awareness and use of GRH programs. First, they were asked if they knew of a regional GRH program available for commuters who rideshare or use public transportation. As shown in Figure 11, six in ten respondents (59%) replied there was such a program, 31% mentioned there was no such program, and the remaining 10% were unsure. Awareness of GRH was much higher in 2004 than in 2001. In the 2001 SOC survey, only 20% of respondents said they knew a regional GRH program existed.

Figure 11
Awareness of Regional GRH Program
(n=6,867)



Awareness of GRH by Commute Mode – As shown in Table 66, awareness of GRH services varied by the commute modes respondents were using at the time of the survey. Respondents who primarily carpooled/vanpooled to work were slightly more aware of the regional GRH program than were other respondents who primarily drove alone or used the bus. Respondents who biked or walked to work were least likely to know about GRH.

Table 66
Awareness of Regional GRH Program
by Current Primary Commute Mode (3+ days per week)

Current Primary Mode	(n=___)	Aware of GRH Program	
		2004 SOC	2001 SOC
Drive alone	4952	61%	19%
Carpool/vanpool	451	66%	26%
Bus	298	52%	22%
Train	691	55%	24%
Bike/walk	143	43%	13%

Interestingly, in 2004, drive alone respondents were as aware of the program as were respondents who used transit modes. This is a reversal of the results found in the 2001 SOC survey. In that survey, drive alone respondents were less likely to know about GRH than any other respondents, except bike/walk users. It is also notable that the overall awareness of GRH has expanded dramatically since 2001, for all mode groups. This suggests Commuter Connections' GRH advertising is reaching both its primary target market of drive alone commuters and commuters who use alternative modes.

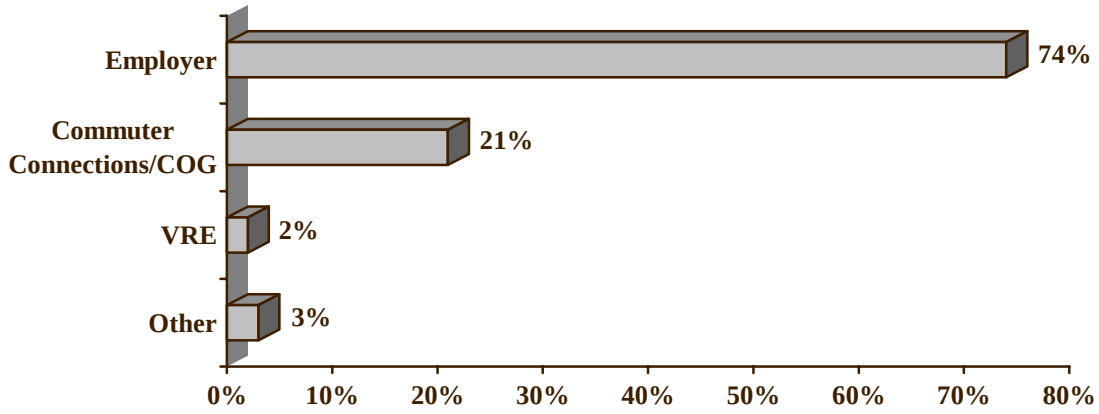
Use of GRH – Four percent of respondents said they had registered for or used a GRH service within the past two years. These respondents included respondents who had previously mentioned that they registered for or used a GRH service offered by their employer.

Carpoolers/vanpoolers and bus riders were more likely to have registered or used GRH than were other alternative mode users. About nine percent of respondents in each of these mode groups said they had participated in GRH, compared to about six percent of train riders. But it is notable that within the train group, nearly a quarter (22%) of commuter rail riders had registered for/used GRH, while only five percent of Metrorail riders had used a GRH program. About four percent of respondents who said they bike or walk to work had participated in a GRH program.

Sponsor of GRH Program – The 341 respondents who had registered for or used any GRH service were asked who sponsored this service. Results are pictured in Figure 12.

As shown, three-quarters (74%) of respondents said their employers sponsored the programs they had used. Note that the base for this distribution includes 215 respondents who mentioned in a previous question that they had used an employer-provided GRH service. They were not asked who sponsored the GRH program they had used, but they were included in the results to this question.

Figure 12
Sponsor of the GRH Service
(n=341)



About a fifth (21%) of respondents noted Commuter Connections or MWCOG/COG as the sponsor of the program. This was an increase from the 13% who mentioned Commuter Connections as the sponsor in 2001 (2001 SOC survey). Two percent named VRE commuter rail as the sponsor. The remaining three percent named another sponsor.

3-I COMMUTE INFORMATION KIOSKS

Use of Kiosks

Awareness of Kiosks – Finally, the survey examined respondents' awareness of and use of twelve self-service transportation information kiosks located around the Washington area. These kiosks provide a variety of commute information, along with some information unrelated to transportation. The survey specifically asked respondents to exclude kiosks used to purchase train or transit tickets, such as those provided by airlines and train operators in terminals and stations.

Slightly more than one in ten (11%) of respondents said they had seen one of these kiosks. Of those who had ever seen a kiosk, approximately one in seven (13%) had used one of these kiosks to obtain commute or other transportation information. This equated to about 1.4% of the total regional commuters. Locations of the kiosks that these respondents said they had used are shown in Table 67 below.

Table 67
Location of Kiosks Used
(n=96)

Kiosk Location	Percentage*
Springfield Mall (VA)	15%
Ballston Common Mall (VA)	8%
Tysons Corner Center (VA)	6%
Montgomery County (MD)	6%
Union Station (DC)	4%
Fairfax County (VA)	4%
Pentagon (VA)	3%
Fair Oaks Mall (VA)	3%
Don't know	15%
Other	39%

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

Respondents who were using alternative modes at the time the survey was conducted were more likely to have used a kiosk than were respondents who drove alone. As shown in Table 68, respondents who used bus and train were most likely to have used a kiosk to obtain information. About one in five of these respondents said they had used a kiosk. About 12% of carpoolers/vanpoolers had done so. A high percentage (33%) of respondents who biked or walked to work had used a kiosk, but this was based on a very small sample of respondents (n=16). Only about one in ten respondents (10%) who drove alone had used a kiosk to obtain transportation information.

Table 68
Use of Kiosks
by Current Primary Commute Mode (3+ days per week)

Primary Commute Mode	(n=__)*	Used Kiosk	
		Yes	No
Train	81	18%	82%
Bus	40	17%	83%
Carpool/vanpool	56	12%	88%
Bike/walk **	16	33%	67%
Drive alone	476	10%	90%

* Respondents who used kiosks and used primary commute mode when survey was conducted.
** Caution: Very small sample size

Information Obtained from Kiosks – Respondents cited a variety of types of information that they obtained from the kiosks. These results are detailed in Table 69.

Table 69
Information Obtained from Kiosks
(n=96)

Information	Percentage*
Transportation/Commute Information	
Transit route/schedule info	46%
General rideshare information	18%
Maps and guides	7%
Traffic information (SmartTraveler)	4%
GRH information or registration	2%
Carpool/vanpool matchlist	<1%
Other Information	
Mall/retail center information	3%
Other**	12%

* 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.

The most common types of information obtained included: transit route/schedule information, noted by nearly half of respondents (46%) and general rideshare information, cited by 18% of respondents. Smaller percentages of respondents noted maps and guides (7%), traffic information (SmartTraveler) (4%) or GRH information or registration (2%).

Influence of Kiosk Information on Commute Behavior

Respondents who said they had used a kiosk (n=96) next were asked if the information they received at the kiosk encouraged them to try a different type of transportation for their commute to work. About than one in six respondents (17%) said the information had influenced their decision to try an alternative mode that they were not using before they obtained the information.

Commute Modes Used Before and After Using Kiosk – Table 70 lists the number of respondents who tried each alternative mode after obtaining information from the kiosk and the number who used these alternatives or driving alone before trying the new alternative mode. Because the total number of respondents who made a travel change was small, the distribution of responses is shown as number of respondents, rather than as weighted percentages.

Table 70
Type of Transportation Tried After Obtaining Information from Kiosk
(n=18)

Type of Transportation	Number of Respondents*	
	Before Using Kiosk	After Using Kiosk
Drive alone	11	N/A
Bus	1	5
Train	1	9
Carpool/vanpool	3	3
Walk	1	0
Other	1	1

*Numbers are shown instead of percentages due to small base.

Bus and train were the modes that the largest number of respondents said they tried. A few respondents tried carpooling or vanpooling. The majority of respondents said they had been driving alone prior to making these changes.

Length of Time Using Alternative Mode – Respondents who tried alternative modes after obtaining information from a kiosk were asked how long they used those modes. As shown in Table 71, the ma-

jority of respondents used these new alternative modes only temporarily. Nine of the 18 respondents used the alternative mode for three months or less.

Table 71
Length of Time Using Alternative Modes
After Obtaining Information from Kiosk
(n=18)

Length of Time	Number of Respondents*
Less than 1 month	4
1–3 months	5
4-6 months	2
7-9 months	0
Over 9 months	6
Don't Know	1

*Numbers are shown instead of percentages due to small base.

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. The results of this 2004 survey would be compared against past results as measured in the 2001 SOC survey, the most recently performed regional commute survey to identify any commute trends.

A second objective of the SOC survey was to collect data to support the upcoming TERM evaluation, scheduled to be performed in the spring of 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 and attitudes toward transportation options
- Awareness of commute advertising
- Awareness of commute assistance resources
- Commuter assistance services provided by employers
- Guaranteed Ride Home
- InfoExpress kiosks

Commute Patterns

Use of drive alone appears to have grown since 2001 at the expense of carpool/vanpool.

- Drive alone continued to be the most popular commute mode in the Washington metropolitan region. About 74.1% of weekly commute trips made to worksites outside the home were made by driving alone. This represented an increase over the 72.6% of weekly trips that were drive alone in 2001.
- Weekly trips made by transit and bike/walk were essentially unchanged from 2001 to 2004; bus dropped from 4.7% to 4.6%, train use rose from 12.7% to 12.8%, and bike/walk trips dropped from 2.4% to 2.3% of weekly commute trips.
- But weekly carpool/vanpool trips exhibited a statistically significant drop from 7.6% of weekly trips to 6.1% from 2001 to 2004.
- About a quarter (24.3%) of regional commuters said they used an alternative mode (carpool, vanpool, public bus, buspool, subway, commuter rail, bicycle, or walk) “regularly,” 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 almost three in ten (28.1%) of commuters using an alternative at least once per week.

- The most popular alternative mode was train, which was used by 12.2% of respondents on a "regular" basis, three or more days per week. An additional 1.2% of commuters said they used the train one or two days per week.
- Bus was the regular commute mode for 4.4% of respondents. An addition 0.6% occasionally rode the bus to work.
- Carpooling/vanpooling was used by 5.6% of commuters three or more days per week and 1.3% 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. About 12% of carpoolers/vanpoolers "casual" carpooled (slug).

Regional commuters continue to try new alternative modes.

- Approximately one in five (22%) 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-third (32%) of respondents had tried the bus and 14% had tried carpooling. These were essentially the same percentages of trial and/or temporary use of alternatives as were observed in 2001.
- Prior to starting to use their current modes, about 40% of respondents who were using alternative modes previously drove alone to work. About a third (36%) had used a different alternative mode. About three in ten (30%) said they either had always used the alternative mode or were not working in the metropolitan area then.

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

- More than half (54%) of respondents who used alternative modes said they had used these modes for more than two years. This was a slight increase from the 2001 percentage of 49%. But about a quarter (23%) of the 2004 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 70 months. This is a considerably longer duration than had been generally assumed as the duration of an alternative mode arrangement.

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

- Nearly three in ten (29%) of commuters who used an alternative mode said they drove alone to the alternative mode meeting spot (park & ride lot, train station, etc.) and left their cars at those places. Respondents traveled an average of 3.1 miles to these meeting points. Four in ten respondents walked to the meeting point and the remaining respondents who used an alternative mode either took transit, or were dropped off by a carpool partner or picked up at home.

Commute lengths continue to increase.

- Respondents traveled on average of 16.5 miles and 34 minutes in 2004. The one-way commute distance increased from the average of 15.5 miles in 2001. The commute time stayed approximately the same as the 32 minutes estimated from the 2001 survey.

Telecommuting

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

- About 12.3% of total survey respondents said they telecommuted at least occasionally. But telecommuters accounted for 12.8% 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, 12.8% of regional commuters, appears to have increased from the 2001 level of 11.3%. We note that the 2004 survey used a more restrictive definition of telecommuting than did the 2001 survey, excluding respondents, such as sales staff, who travel to multiple client sites during their workday and respondents who work at home for only a portion of a day. These respondents would have been considered telecommuters under the 2001 definition. To enable a comparison between results for the two years, the 2001 telecommute results were revised to exclude respondents who would not have been counted as telecommuters under the 2004 definition. This adjustment estimated that 11.3% of regional commuters telecommuted at least occasionally.
- The 2004 survey also showed that an additional 18% of commuters who do not telecommute today "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, and commute distance more than 30 miles.
- Telecommuters also were statistically more likely to be: employees of non-profit organizations or private employers; employees of very small employers (fewer than 25 employees) or employers with 251 to 999 employees; 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 (251 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 seven percent of total Federal workers in 2001 to 12% in 2004.

"Informal" telecommuting arrangements predominate, but formal programs have increased since 2001.

- About 15% of all respondents (both telecommuter and non-telecommuters) said their employer had a formal telecommute program and 20% said telecommuting is permitted under informal arrangements between a supervisor and employee. Formal programs were most common at Federal agencies and among large employers.

- About one-third (32%) of current telecommuters said they telecommuted under a formal arrangement. The remaining telecommuters worked under an informal agreement with their supervisor. This suggests employers are more willing to craft individual agreements for selected employees than to institutionalize telecommuting. But the percentage of formal programs increased from only 27% in 2001, perhaps signaling a greater acceptance of formal telecommuting.

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 13.2 miles to those locations. The majority (68%) drove alone to these locations.

The average frequency of telecommuting seems to have increased slightly from 2001.

- Telecommuters telecommuted about 1.3 days per week on average. This was a slight increase in telecommute frequency from the 1.2 days per week estimated in the 2001 survey. Note that the 2001 frequency reflects the adjustment noted earlier to estimate 2001 results under the 2004 telecommute definition.

Telecommuters get information on telecommuting from a variety of sources.

- More than half of the telecommuters surveyed said they obtained information on telecommuting from a "special program at work" or "word of mouth." About one in six said they "initiated request on my own."
- Just over 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 three 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 and Attitudes Toward Transportation Options

The survey results show that public transportation is widely availability in the region.

- Two-thirds of respondents (68%) said public transportation was available in their home and work areas, the same percentage who said in 2001 that they had access.
- Metrobus, named by 53% of respondents, Metrorail, named by 46%, and RideOn, cited by 11% of respondents, were the most widely available services. But respondents named 10 additional public transportation services that provide service in the region.

Over a quarter of respondents have access to HOV lanes for their commutes.

- More than a quarter of respondents (29%) said there was an HOV lane along their route to work. Virginia residents were more likely to have access to HOV lanes than were residents of either Maryland or the District of Columbia.
- About a quarter (28%) of commuters who had access to HOV lanes used them and more than half (58%) of these respondents said availability of the HOV lane influenced their decision to use an alternative mode for commuting.
- Respondents who used the lanes said they saved an average of 25 minutes for each one-way trip. This might be an overestimation of the actual time saving, since 27% said the time saving was equal to or greater than the total length of their commute.

About seven percent of regional commuters use Park & Ride lots.

- About four in ten respondents (42%) said they knew the locations of Park & Ride lots along their route to work. Of those who knew the locations, 18% said they had used these lots when commuting during the past year. These respondents equate to about seven percent of the regional population.

Commuters' reasons for not using public transit or ridesharing varied by mode.

- The majority of respondents who did not use the bus for commuting said that the bus "takes too much time" (32%), that they "need car for work" (15%), or that there was "no service available in home/work area" (13%).
- "No service available" was the primary reasons for not using the train (37%). Smaller percentages of commuters said they did not use the train because the train "takes too much time" (21%) or because they "need car for work" (14%).
- The overwhelming reason that commuters did not carpool was that they "didn't know anyone to carpool/vanpool with" (47%). Other reasons were that the commuters had "irregular work schedules" (20%) or "need car for work" (12%).

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

- Nearly three in ten respondents 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 (81%).
- About 14% of respondents said their commute was easier than last year. The primary reasons were that the trip was shorter (44%), took less time (21%), or was less congested. But six percent said the commute was easier because they started using an alternative mode and two percent said they improved their commute by using HOV lanes.

Awareness of Commute Advertising

Commute information advertising appears to be widely recognized.

- Over half (55%) 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 2001 survey.
- Recall of general rideshare messages, such as [ridesharing] will "save time" or "help the environment, was below the levels estimated in 2001, but recall of messages about commute assistance services, such as GRH or carpool/vanpool matching assistance, had increased. A large portion of the messages that respondents recalled focused on Commuter Connections programs.
- Most (66%) 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 15% recalled WMATA as a sponsor.

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

- About 18% 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 or reducing congestion. Respondents who were using alternative modes during the survey week were more likely to be influenced by the advertising (26% of respondents likely to consider alternative modes) than were commuters who drove alone (17%).
- 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. These respondents cormprised slighly more than one percent of all regional commuters.
- The majority of these respondents said they sought information about commuting on the internet, from a family member or co-worker, or from a regoinal commute service organization. A very small percentage said they tried or started using an alternative mode after hearing the ads.
- More than two-thirds (69%) of respondents who had taken some action said the advertising they saw or heard encouraged the action. And more than 70% 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.

Awareness of Commute Assistance Resources

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

- Nearly half (46%) of respondents said they knew of a telephone number or web site they could use to obtain commute information. This was considerably higher than the 33% of respondents who knew of these resouces in 2001 About 15% 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 about the same as the 10% who said in 2001 that they had used the 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 six percent of respondents who did not recall any ads.
- Respondents who used train (20%), bus (18%), or bike/walk (17%) were more likely to have used one of these numbers or web sites than were either carpoolers/vanpoolers (10%) or drive alone respondents (6%). It is possible that some respondents who used alternative modes at the time the survey was conducted and who contacted a commute information number or web site used the information they received to shift to an alternative. More than one-third of these respondents said they started using their current alternative mode within the past year.

Commuter Connections has high name and service recognition.

- Two-thirds (66%) of all 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 and if their employer offered some types of commute services at the worksite. Awareness of Commuter Connections also was much higher among respondents who had seen or heard commute ads (74% recognition) than among those who did not recall any commute advertising (42% recognition).
- An encouraging finding was that respondents largely cited services that Commuter Connections actually does provide. About one third (36%) of respondents said they didn't know specific services, but 40% knew that Commuter Connections sponsored a GRH program and more than four in ten knew the organization offered either general rideshare information (28%) or help finding a carpool or vanpool partner (16%).
- The high recognition of both Commuter Connections program and its services is contradicted, however, to a finding mentioned earlier, that 46% of respondents who do not carpool said their reason for not using this mode was because they "didn't know anyone to carpool with." Although a large portion of the population does appear to know that ridematching is a service provided by Commuter Connections it might be useful to reinforce that message in regional advertising.

Commuter Assistance Services Provided by Employers

Availability of worksite commute assistance services is about the same as in 2001.

- Over half of respondents (53%) said their employers offered one or more alternative mode incentives or support services to employees at their worksites.
- The most commonly offered services were Metrochek/transit/vanpool subsidies (31% of employers) and commute information (22% of employers). About one in six respondents said their employers offered preferential parking (16%), services for bikers and walkers (14%), or GRH (12%).

- Availability of transit/vanpool subsidies and bike/pedestrian facilities appeared to have risen since 2001, while availability of commute information, preferential parking, carpool subsidies, and employer-provided GRH appeared to have dropped slightly.
- Respondents who worked for federal agencies were most likely to have incentive/support services available (84.5%), compared with 40-50% of respondents who worked for other types of employers. Respondents also were most likely to have access to all types of incentive/support services if they worked for large firms than for small firms.

Most commuters continue to have free worksite parking.

- The majority of respondents (66%) said their employers offered free, on-site of off-site parking, about the same percentage as that resported in 2001 (65%).
- Federal agency employees were least likely to have free parking (59%) compared with more than 70% of employees working for other types of employers.

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

- Commute information and Metrochek/transit/vanpool subsidies were the most widely used commuter assistance services, used, respectively, by 45% and 41% of employees who had access to these incentives.
- Driving alone was less common for commuters who had access to incentive/support services. Only 63% of commuters with these services drove alone to work, compared with 81% of commuters whose employers did not provide these services.
- Respondents whose employers did not offer free parking also used alternative modes at much higher rates. Less than half (47%) of respondents who did not have free parking drove alone, compared with 86% of respondents who did have free parking.

Guaranteed Ride Home

Awareness of GRH has grown dramatically since 2001.

- Nearly six in ten (59%) respondents knew that there was a regional GRH program. This was a large increase from the 20% who said they knew of such a program in 2001.
- Respondents who primarily carpooled or vanpooled were slightly more aware of GRH than were other respondents. But drive alone commuters were nearly as aware as were carpoolers and vanpoolers. These two findings taken together suggests that Commuter Connections' GRH advertising is reaching all segments of the commuting population, not just those who use alternative modes.
- Four percent of respondents said they had registered for or used a GRH service within the past two years. Three-quarters of the these respondents said the program was sponsored by an employer. About 21% of respondents named Commuter Connections or MWCOG as the sponsor.

Kiosks

Information kiosks offer commuters an additional outlet for transportation information.

- Slightly more than one in ten (11%) respondents said they had seen one of the transportation information kiosks located around the Washington area. Of these respondents, one in seven (13%), or about 1.4% of the total surveyed respondents, said they had used one of these kiosks to obtain transportation information.
- Respondents who were using alternative modes at the time of the survey were more likely to have used a kiosk than were respondents who were driving alone.
- The information most commonly obtained from kiosks included: transit route/schedule information (46%), general rideshare information (18%), and maps and guides (7%).
- More than one in six respondents (17%) who had used a kiosk said the information had influenced their decision to try a new alternative mode.
- About 61% of the respondents who tried an alternative mode after receiving information from a kiosk were driving alone before they obtained the information.

APPENDICES

Appendix A – Survey Data Expansion

Appendix B – Final Dialing Disposition

Appendix C – Survey Questionnaire

Appendix D – Instructions and Definitions of Terms

Appendix E – Comparison of Key 2004 SOC Results with 2001 SOC Results

APPENDIX A – SURVEY DATA EXPANSION

Survey responses from the State of the Commute 2004 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 – March, 2004 were used to expand responses to employed persons. This methodology was adopted over the multi-stepped methodology developed in 2001, as a simpler, more direct approach to expanding results to known, published statistics. The main advantage of the 2004 methodology lies in the fact that estimates of working households are not dependent upon survey data. To insure that using both the 2001 and the 2004 methods would produce comparable results; each method was tested and used to expand the 2004 survey responses. The results showed a difference of only 1.2% between the two methods. The use of the LAUS method was suggested and approved by COG.

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 (1st Q – 2004)	Working HH Sample (# Surveyed)	Rounded Worker Expansion Factor	Total Worker Estimates
Alexandria City, VA	82,418	600	137	82,200
Arlington Co., VA	115,946	600	193	115,800
Calvert Co., MD	40,578	600	68	40,800
Charles Co., MD	64,468	600	107	64,200
District of Columbia	281,000	600	468	280,800
Fairfax Co., VA	585,320	600	976	585,600
Frederick Co., MD	108,113	600	180	108,000
Loudoun Co., VA	118,426	600	197	118,200
Montgomery Co., MD	498,563	600	831	498,600
Prince George's, MD	453,285	600	755	453,000
Prince William Co., VA	190,529	600	318	190,800
Stafford Co., VA	52,635	600	88	52,800
Total	2,589,278	7,200	1,692	2,590,800

Estimates of employed workers were obtained from BLS for each jurisdiction in the study area for the first quarter of 2004, i.e., January – March. 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 82,418 workers is divided by 600 surveys to obtain

a representation of 137 workers per complete survey. When 137 is multiplied by 600 surveys, the resulting estimate of 82,200 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 40,800 workers in Calvert County would have the same representation as the estimated 585,600 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 2001 analysis, 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 recommended 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 39 refusals (6.5%) in the ethnic distribution of the 600 District of Columbia households were redistributed in the same proportion as the valid percent.

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

Q122/Q123. Ethnic Background	Distribution of Ethnicity From 2004 Survey	Distribution of Ethnicity From 2000 Census	Bias Adjusted Distribution of Workers	Number of Survey Responses	Bias Adjusted Factor
Hispanic	5.9	7.3	20,498	36	569
White	53.7	31.8	89,294	313	285
African-American	36.2	55.7	156,406	225	695
Other	4.2	5.2	14,602	26	562
Total	100.0	100.0	280,800	600	

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 (468) within the District of Columbia. Multiplying the percentage distribution of ethnicity from the 2000 Census by the total number of workers, 280,800 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 * 280,800 = 20,498. This number is divided by the number of survey responses (plus the redistribution of non-response); for Hispanic, 36 responses. Once again, the integer portion of the expansion factor is used. Now, instead of each working household representing 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 2004 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.

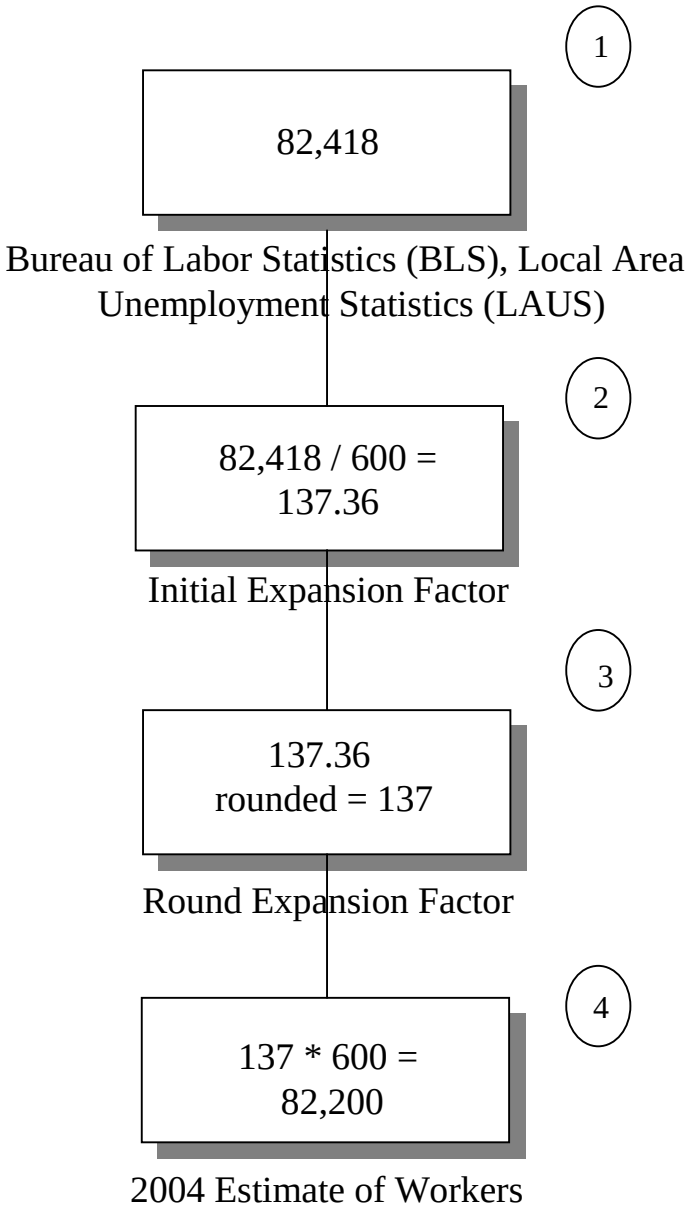
Table A-3 – Level of Confidence for Analysis

Sub-Area or Sub-Population	Sample Size	Level of Confidence
Geographic Sub-Areas		
Study Region – Twelve Areas	7,200	95% ± 1.2%
Study Portion of Virginia	3,600	95% ± 1.6%
Study Portion of Maryland	3,000	95% ± 1.8%
District of Columbia	600	95% ± 4.0%
Individual County or City Level	600	95% ± 4.0%
Sub-Area or Sub-Population	**Sample Size**	**Level of Confidence**
Sub-Populations		
Telecommuters	876	95% ± 3.3%
Carpoolers (with casual)/Vanpoolers	527	95% ± 4.3%
Transit Users	1,095	95% ± 3.0%
Bike Users or Walkers	180	95% ± 7.3%
Kiosk Users	96	95% ± 10.0%
Commuters Aware of GRH	4,047	95% ± 1.5%

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.

Example: Alexandria City, VA



---

[1] Estimate of employment January - March, 2004

[2] Initial expansion factor per SOC 2004 survey

[3] Rounded expansion factor = 137

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

APPENDIX B – STATE OF THE COMMUTE 2004
FINAL DIALING DISPOSITION

		AREAS		
		English Count	**Spanish Count**	**Total Count**
New Result	Answering Machine	14,147	132	14,279
	No Answer	20,099	46	20,145
	Call Backs	1,813	53	1,866
	Busy	6,565	10	6,575
	Total Lives	42,624	241	42,865
	Not in Service	13,153	49	13,202
	Business	12,794	22	12,816
	Refusals	22,551	222	22,773
	Other Language	848	197	1,045
	Terminates	4,233	80	4,313
	Never available	300	18	318
	Blocked Number	6,190	24	6,214
	Total Deads	60,069	612	60,681
	Total Completes	7,044	156	7,200
	Total Sample	109,926	1,025	110,951

Total Dialings: 323,839
Average Number of Dialings per Complete: 45.0

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
LIVES												
Answering Machine	1,290	1,311	1,063	996	1,324	1,107	1,105	998	1,223	1,648	1,108	1,106
No Answer	1,892	2,093	1,286	1,398	2,108	1,955	1,408	1,546	1,652	2,227	1,260	1,320
Call Backs	121	160	106	137	142	317	116	72	202	223	128	142
Busy	595	597	525	522	585	323	601	610	524	635	529	529
Total Lives	3,898	4,161	2,980	3,053	4,159	3,702	3,230	3,226	3,601	4,733	3,025	3,097
DEADS												
Not in Service	2,253	983	778	980	1,634	1,150	752	710	834	1,577	878	673
Business	1,477	1,030	820	930	1,245	1,140	985	1,113	1,112	1,275	786	903
Refusals	1,714	1,716	2,167	1,974	2,260	1,218	2,032	1,652	1,849	2,355	1,759	2,077
Other Language	129	140	21	33	91	139	40	60	146	95	113	38
Terminate	305	332	424	379	460	398	378	235	342	421	277	362
Never Available	27	20	32	22	30	16	21	27	33	30	27	33
Blocked Number	343	335	740	914	646	237	445	432	402	1,331	66	323
Total Deads	6,248	4,556	4,982	5,232	6,366	4,298	4,653	4,229	4,718	7,084	3,906	4,409
Total Completes	600	600	600	600	600	586	600	600	600	600	600	600
Total Calls	10,746	9,317	8,562	8,885	11,125	8,586	8,483	8,055	8,919	12,417	7,531	8,106

Final Disposition	Fairfax City
LIVES	
Answering Machine	558
No Answer	1,704
Call Backs	153
Busy	210
Total Lives	2,625
DEADS	
Not in Service	810
Business	1,045
Refusals	1,241
Other Language	85
Terminate	350
Never Available	6
Blocked Number	222
Total Deads	3,759
Total Completes	429
Total Calls	6,813

APPENDIX C – SURVEY QUESTIONNAIRE

Demo = socdemo
Survey = SOC2004

Greater Washington, D.C., State of the Commute Survey – FY04
Final – 2/12/04

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)

QS1. 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)

QS2. 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

QS3. In what county (or Independent City) do you live now? (DO NOT READ)

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

88. Don't know
99. Refused

RECORD INFORMATION AND THEN, THANK & TERMINATE

QS4. Are you an employed person who is at least 16?

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

QS5. 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)

Q1. What is your employment status right now -- are you employed 35 hours or more per week, or less than 35 hours?

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

QUOTA SCREENER – NEED 600 IN EACH OF 12 AREAS

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

1. Alexandria City, VA
2. Arlington Co., VA
3. Calvert Co., MD
4. Charles Co., MD
5. Washington, DC (District of Columbia)
6. Fairfax Co., VA (City of Falls Church, City of Fairfax)
7. Frederick Co., MD (City of Frederick)
8. Loudoun Co., VA
9. Montgomery Co., MD (City of Rockville, City of Gaithersburg, City of Takoma Park
10. Prince George's Co., MD(City of Greenbelt, City of College Park, City of Bowie)
11. Prince William Co., VA (City of Manassas, City of Manassas Park)
12. Stafford Co., 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 Q57)

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 Q8)
1. One
2. Two
3. Three
4. Four
5. Five
8. Don't know (SKIP TO Q61)
9. Refuse (SKIP TO Q61)

Q7. At what time do you usually arrive at work?

1. 5 am to 5:29 am
2. 5:30 am to 5:59 am
3 6 am to 6:29 am
4. 6:30 am to 6:59 am
5. 7 am to 7:29 am
6. 7:30 am to 7:59 am
7. 8 am to 8:29 am
8. 8:30 am to 8:59 am
9. 9 am to 9:29 am
10 9:30 am 9:59 am
11. 10 am to 5:59 pm
12 6 pm to 12 midnight
13 12:01 am to 4:59 am
88. Don't know
99. Refuse

SKIP TO Q11

Q8. 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)

Q9. Are you self-employed with your primary work location at home?

1 Yes (PROGRAMMER, CODE AS HOMEALL) (SKIP TO Q61)
2 No (CONTINUE)

Q10. Do you telecommute every weekday you work?

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

Q11. Do you work a compressed or flexible work schedule, for example, a full-time work week in fewer than five days or a schedule with flexible start and end times?

1. yes (CONTINUE) 2. no (SKIP TO Q13)

Q12. What type of schedule do you use?

1. 4/40 (4 10-hour days per week, 40 hours)
1. 9/80 (9 days every 2 weeks, 80 hours)
2. 3/36 (3 12-hour days per week, 36 hours - police, fire, hospitals)
3. flex-time or flexible work hours (core hours with flexible start & stop)
4. other (SPECIFY) _____

Q13. Now I want to ask you about telecommuting, also called teleworking. For purposes of this survey, "telecommuters" are defined as "wage and salary employees who at least occasionally work at home or at a telework or satellite center during an entire work day, instead of traveling to their regular work place." Based on this definition, are you a telecommuter?

1. yes
2. no (SKIP TO Q15)
9. DK/Ref (SKIP TO Q15)

Q14. 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 Q9, Q10, AUTO FILL Q15 & DON'T ASK)

Q15. Now thinking about LAST week, how did you get to work each day. Let's start with Monday? … How about Tuesday? … Wednesday? …. Thursday? …. Friday?

(IF RESPONDENT MENTIONS MORE THAN ONE MODE ON ANY DAY, PROMPT FOR THE MODE USED FOR THE LONGEST DISTANCE PORTION OF THE TRIP.)

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

(IF Q14 = 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 ALL WEEKDAYS IN Q5 ARE ACCOUNTED FOR BY MODES 1-15 IN Q15 BEFORE ALL WEEKDAYS ARE COUNTED, ASK: You said you typically work only (number of weekdays reported in Q5) per week. Were the weekdays I haven't asked you about regular days off for you last week? IF RESPONSE IS YES,

CATI WILL AUTOFILL REMAINING DAYS WITH CODE 16; OTHERWISE CONTINUE AND RECORD MODES USED FOR THOSE DAYS)

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

	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
19. N/A					
20. N/A					
88. N/A					

Q16. How long is your typical daily commute one way? Please tell me both how many minutes and how many miles. First, how many minutes?

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

Q17. And how many miles? (IF LESS THAN 1 MILE, RECORD AS "1")

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

(If Q15 = 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or 15 ASK ABOUT MOST COMMON ALTERNATIVE <MODE Q15>. OTHERWISE, SKIP TO Q21)

Q18. You said that you <MODE Q15>. How long have you been using <MODE Q15> 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

Q19a. Before starting to <MODE Q15> to work, what type or types of transportation did you use to get to work? (PROGRAMMER, LIST MODES FOR USE IN Q19b)

FOR EACH MODE MENTIONED IN Q19a, ASK,…

Q19b. About how many days per week did you use <MODE FROM Q19a>?

(IF SUM OF DAYS FROM Q19b NE Q5, ASK) "And how did you commute on other days you were assigned to work?" – ACCEPT OPTION OF "didn't work, regular day off."

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

(IF Q14 = 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?"

Mode/Day typically used per week	Number of days using mode				
1. compressed work schedule day off	1	2	3	4	5
2. telecommute	1	2	3	4	5
3. drive alone in your car, taxi	1	2	3	4	5
4. motorcycle	1	2	3	4	5
5. carpool, including carpool with family member, dropped off	1	2	3	4	5
6. casual carpool (slugging)	1	2	3	4	5
7. vanpool	1	2	3	4	5
8. buspool	1	2	3	4	5
9. bus	1	2	3	4	5
10. Metrorail	1	2	3	4	5
11. MARC	1	2	3	4	5
12. VRE	1	2	3	4	5
13. AMTRAK, other train	1	2	3	4	5
14. bicycle	1	2	3	4	5
15. walk	1	2	3	4	5
16. didn't work, regular days off	1	2	3	4	5
17 N/A					
18 N/A					
19 always used <MODE Q15>					5
20. not working then, not in DC area then					5
99. don't know, refused					5

Q20. What were the reasons you began using <MODE Q15>? **(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. tired of driving
8. prefer to drive, wanted to drive
9. safety
10. no vehicle available
11. car became available, additional car in household
12. to stay with family/children
13. congestion
14. always used
15. close to work or transportation pick up/drop off location
16. afraid of or didn't like previous form of transportation
17. stress
18. weather
19. convenient (NOT AN ANSWER, PROBE FOR WHY IT'S CONVENIENT)
20. to get exercise

Commute Services/Programs

21. new option that became available
22. special program at work
23. pressure or encouragement from employer
24. GRH
25. Ozone action/Code Red days
26. no parking, parking expense
27. found carpool partner
28. NuRide (VA carpool incentive)
29. Metrochek, SmartTrip, transit subsidy, vanpool subsidy

Information/Promotion

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

SKIP TO Q22

Q21. 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 Q23) 2. no (SKIP TO Q28)

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, that you've not already mentioned?

1. yes 2. no (SKIP TO Q28)

Q23. 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 Q21/Q22 TO "NO.") (IF Q23 = Q15 ANY DAY OR Q19, INTERVIEWER PROMPT, "YOU ALREADY MENTIONED <MODE Q15, Q19>, 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

Q24. How long did you use <Q23 mode(s)> ? (DO NOT READ)

_____ months (CONVERT YEARS TO MONTHS)

0	less than one month
888	occasionally (tried one, emergency use)
999	still using (ASK Q25)
-997	Don't know

SET Q23LONG = Q24, LONGEST DURATION
IF Q24 = STILL USING FOR ANY MODE, THAT MODE = Q23 LONG

SKIP TO Q26

Q25 How many days would you say you now < Q23LONG> in a typical **month**?

_____ DAYS PER MONTH

Q26. 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. tired of driving
8. prefer to drive, wanted to drive
9. safety
10. no vehicle available
11. car became available, additional car in household
12. to stay with family/children
13. congestion
14. always used
15. close to work or transportation pick up/ drop off location
16. afraid of or didn't like previous form of transportation
17. stress
18. weather
19. convenient (NOT AN ANSWER, PROBE FOR WHY IT'S CONVENIENT)
20. to get exercise

Commute Services/Programs

21. new option that became available
22. special program at work
23. pressure or encouragement from employer
24. GRH
25. Ozone action/Code Red days
26. no parking, parking expense
27. found carpool partner
28. NuRide (VA carpool incentive)
29. Metrochek, SmartTrip, transit subsidy, vanpool subsidy

Information/Promotion

30. advertising
31. initiated request/looked for information on my own
32. info. from Commuter Connections/Council of Governments/COG/800 number
33. Commuter Connections Website
34. other Website
35. word of mouth/recommendation
36. information from transit agency
37. saw highway sign
38. yellow pages
39. Other _____

88. Don't know
99. Refuse

IF Q23 = Q15, ANY DAY, ANY MODE, OR Q24 = STILL USING, SKIP TO Q28

Q27. Why didn't you continue < Q23LONG>? **(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) _____

ALTERNATIVE MODE PATTERNS

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

Q28. Now I'd like to ask you about your current car/van pool (FROM Q15). Including yourself, how many people usually ride in your carpool or vanpool? (If more than 1 answer in Q15, select 1 using this priority: vanpool, carpool, casual carpooling/slug.)

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

(IF Q15 = 5, 6, 7, 8, 9, 10, 11, 12, OR 13, CONTINUE USING THE MOST COMMON ALTERNATIVE MODE, OTHERWISE, SKIP TO INTRO BEFORE Q31)

Q29. How do you get from home to where you meet the <Q15 MODE>?

1. picked up at home by car/van pool or driver (SKIP TO INTRO BEFORE Q31
2. drive alone to driver's home or drive alone to passenger's home
3. drive to a central location, like park & ride, or train or subway station
4. dropped off or another car/van pool
5. bicycle
6. motorcycle
7. walk
8. driver of car pool/van pool (SKIP TO Q21)
9. bus/transit
10. other (SPECIFY) _____

Q30. How many miles is it one way from your home to where you meet your carpool, vanpool, buspool, or public transportation <Q15 MODE>? (IF LESS THAN 1 MILE, ENTER A "1")

_____ miles (no decimals)

TELECOMMUTE

INTRO BEFORE Q31: Now I have a few more questions about telecommuting.

IF Q13 = 1 OR Q15 = 2 any day, SKIP TO Q34

Q31. You said earlier that you do not telecommute now. 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 Q33)
9. DK/Ref (SKIP TO Q33)

Q32. 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

Q33. Does your employer have a formal telecommuting program at your workplace or permit employees to telecommute under an informal arrangement with the supervisor?

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

(NOW SKIP TO INTRO BEFORE Q43)

Q34. How long have you been telecommuting?

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

Q35. Does your employer have a formal telecommuting program at your workplace or do you telecommute under an informal arrangement between you and your supervisor?

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

IF TELEALL, SKIP TO Q40

Q36. 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 Q40)
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 Q36 = 3, 5, 7, 9, OR 11, CONTINUE, OTHERWISE, SKIP TO Q38)

Q37. How many days per week, on average, do you telecommute from the location outside your home?
_____ days per week

Q38. How many miles is it one way from your home to this location? (IF LESS THAN ONE MILE, RECORD "1")
_____ miles (no decimals)

Q39. 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

Q40. Why did you start to telecommute? (DO NOT READ) (ALLOW MULTIPLE ANSWERS)

1. changed jobs/work hours
2. save money
3. save time
4. new option that became available
5. advertising
6. special program at work
7. moved to a different residence
8. pressure or encouragement from employer
9. safety
10. no vehicle available
11. tired of driving
12. initiated request on my own
13. info. From Commuter Connections / COG (Council of Governments) / Web (SKIP TO Q43)
14. employer or worksite moved
15. get more work done
16. quiet, uninterrupted
17. stay with family or children
18. avoid congestion
19. convenient
20. personal circumstances (weather, repair man, sick)
21. other (SPECIFY) _____

99. DK/Ref

Q41. Did you receive any information about telecommuting from Commuter Connections or from the Telework Resource Center at the Council of Governments?

1. yes (SKIP TO Q43)
2. no
9. DK/Ref

(IFQ40 = 5, 6, 12, OR 13 SKIP TO Q43, OTHERWISE, CONTINUE)

Q42. 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

AVAILABILITY OF TRANSPORTATION OPTIONS

(IF TELEALL, SKIP TO Q61)

INTRO BEFORE Q43: Next, I want to ask you about transportation services available in your area.

(IF Q15 = 9, 10, 11, 12, or 13 , SKIP TO Q45)

Q43. Regardless of whether or not you use it, can you tell me if public transportation such as buses or trains provide service from the area where you live to the area where you work?

1. Yes, there is
2. No, there isn't
8. Don't know
9. Refuse

} (Skip to Q46)

Q44. What train or bus companies are those? (DO NOT READ; PROBE WELL; ACCEPT MULTIPLE RESPONSES)

1. Alexandria DASH
2. AMTRAK/ACELA
3. Fairfax Connector
4. Fairfax Cue
5. Loudoun Commuter Bus
6. MARC
7. Metrobus
8. MetroRail/subway
9. MTA bus
10. Omni Ride
11. Ride On
12. "The Bus"
13. TransIT Bus
14. Virginia Railway Express
15. Bus (PROBE FOR NAME) _____
16. Train (PROBE FOR NAME) _____
17. Other (SPECIFY) _____
99. Don't know/Refused

(NOW, SKIP TO Q46)

Q45. What train or bus companies provide service from the area where you live? (DO NOT READ CHOICES; PROBE WELL FOR NAME OF BUS OR TRAIN COMPANY; CHECK ALL THAT APPLY BELOW)

1. Alexandria DASH
2. AMTRAK/ACELA
3. Fairfax Connector
4. Fairfax Cue
5. Loudoun Commuter Bus
6. MARC
7. Metrobus
8. MetroRail/subway
9. MTA bus
10. Omni Ride
11. Ride On
12. "The Bus"
13. TransIT Bus
14. Virginia Railway Express (VRE)
15. Bus (PROBE FOR NAME) _____
16. Train (PROBE FOR NAME)_____
17. Other (SPECIFY)
99. Don't know/Refused

Q46. Is there a special HOV (High Occupancy Vehicle) lane that can be used only by carpools, vanpools and buses along your route to work?

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

(IF Q15 = 14, 15, ALL DAYS, SKIP TO Q54)

Q47. Do you use the HOV lane to get to or from work?

1. Yes
2. No (SKIP TO Q52)
9. Refused/Don't know (SKIP TO Q52)

IF Q47 = 1 AND Q15 = 3 (DRIVE ALONE), ALL DAYS, ASK Q48, OTHERWISE, SKIP TO Q49

Q48. Do you drive an alternative fuel vehicle to work, for example, an electric or hybrid vehicle or one that uses compressed natural gas instead of gasoline?

1. Yes
2. No
9. Refused/Don't know

Q49. About how many days per week do you use the HOV lane for commuting?

1. One
2. Two
3. Three
4. Four
5. Five
6. Varies from one week to another
9. Refused/Don't know (SKIP TO Q52)

Q50. How much time does the HOV lane save you in your one-way trip to or from work?

_____ minutes

999 DK/Ref.

Q51. Did the HOV lane influence your decision to use your current way of commuting?

1. Yes
2. No
9. Refused/Don't know

Q52. Do you know the locations of Park ‘n Ride lots along the route that you take to work?

1. yes
2. no (SKIP TO Q54)
3. there aren’t any (SKIP TO Q54)
8. Don’t know (SKIP TO Q54)
9. Refuse (SKIP TO Q54)

Q53. In the past year have you used Park ‘n Ride lots when commuting to work?

1. yes
2. no
9. DK/Ref.

ATTITUDES TOWARD TRANSPORTATION MODES

(IF Q15 = 8, 9, **OR** Q23 = 8, 9, **OR** Q29 = 9, SKIP TO Q55) (IF Q43 = NO, SKIP TO Q56)

Q54. You said earlier that you do not ride the bus regularly for your commute to work. Why don't you ride the bus? (DO NOT READ, ACCEPT MULTIPLE RESPONSES)

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

99. DK/Ref

(IF Q15= 10, 11, 12, 13 (TRAIN), **OR** Q23 = 10, 11, 12, 13, SKIP TO Q56)

Q55. You said that you do not ride the train to work. Why not? (DO NOT READ, ACCEPT MULTIPLE RESPONSES)

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

99. DK/Ref

(IF Q15 = 5, 6, 7 **OR** Q23 = 5, 6, 7 **OR** Q29 = 1, 4, OR 8 SKIP TO Q57)

Q56. You said that you do not use a carpool or vanpool for your trip to work. Why don't you carpool or vanpool? (DO NOT READ, ACCEPT MULTIPLE RESPONSES)

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

99. DK/Ref

Q57. Would you say your commute is easier, more difficult, or about the same now as it was one year ago?

1. easier (ASK Q58)
2. more difficult (ASK Q59)
3. about the same (SKIP TO Q61)
4. not applicable (SKIP TO Q61)
9. DK/Ref (SKIP TO Q61)

Q58. 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

Q59. 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.

Q60. Have you changed your work or home location in the last year?

1 Yes
2 No
9 DK/Ref.

AWARENESS OF COMMUTE PROGRAMS/SERVICES

Q61. Have you heard, seen, or read any advertising about commuting in the past 6 months?

1. yes
2. no (SKIP TO Q73)
9. DK/Ref (SKIP TO Q73)

Q62. What messages do you recall from this advertising? (DON'T READ, ACCEPT MULTIPLE RESPONSES)

1. none (SKIP TO Q73)
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. contact the Commuter Connections website (www.commuterconnections.org, www.commuterconnections.com)
7. it saves money
8. it saves time
9. it is less stressful
10. guaranteed ride home (GRH) (ASK Q79)
11. employer would give me MetroChek benefits, SmartTrip benefits
12. it would help the environment
13. it reduces traffic
14. it saves wear and tear on the car
15. Ozone Action Days / Code Red Days
16. Telework Center / telecommuting
17. HOV lanes
18. regional services/programs are available to help with commute
19. Springfield interchange reconstruction
20. Wilson bridge reconstruction, Bridge Bucks
21. use the bus or train, use Metrobus
22. other (SPECIFY) _____

99. DK/Ref. (SKIP TO Q73)

Q63. 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.

Q64. And where did you see, hear, or read this advertisement? (DO NOT READ, ACCEPT MULTIPLE RESPONSES)

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

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

Attitude changes/actions taken after hearing ads

Q65. After seeing or hearing this advertising, were you more likely to consider ridesharing or public transportation, ?

1. yes
2. no (SKIP TO Q73)
9. DK/Ref (SKIP TO Q73)

Q66. 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 Q73)

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 Q73)
99. DK/Ref (SKIP TO Q73)

(Autocode reasons for change for respondent currently using alt mode (Q15) named in Q66)
IF Q66 = 19 AND Q15 = 5 OR 6, CODE Q67 = Q20, DO NOT ASK Q67
IF Q66 = 20 AND Q15 = 7, CODE Q67 = Q20, DO NOT ASK Q67
IF Q66 = 21 AND Q15 = 8 OR 9, CODE Q67 = Q20, DO NOT ASK Q67
IF Q66 = 22 AND Q15 = 10, 11, 12, OR 13, CODE Q67 = Q20, DO NOT ASK Q67
IF Q66 = 23 AND Q15 = 14 OR 15, CODE Q67 = Q20, DO NOT ASK Q67
IF Q66 = 24 AND Q15 = 2, CODE Q67 = Q20, DO NOT ASK Q67

(Autocode reasons for change for respondent who tried alt mode named in Q66 within past two years (Q23))
IF Q66 = 19 AND Q23 = 5 OR 6, CODE Q67 = Q26, DO NOT ASK Q67
IF Q66 = 20 AND Q23 = 7, CODE Q67 = Q26, DO NOT ASK Q67
IF Q66 = 21 AND Q23 = 8 OR 9, CODE Q67 = Q26, DO NOT ASK Q67
IF Q66 = 22 AND Q23 = 10, 11, 12, OR 13, CODE Q67 = Q26, DO NOT ASK Q67
IF Q66 = 23 AND Q23 = 14 OR 15, CODE Q67 = Q26, DO NOT ASK Q67

IF Q66 = 24 AND Q23 = 2, CODE Q67 = Q26, DO NOT ASK Q67

Q67. What were the reasons you decided to take this action? **[DO NOT READ, ALLOW MULITPLE 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. tired of driving
8. prefer to drive, wanted to drive
9. safety
10. no vehicle available
11. car became available, additional car in household
12. to stay with family/children
13. congestion
14. always used
15. close to work or transportation pick up/drop off location
16. afraid of or didn't like previous form of transportation
17. stress
18. weather
19. convenient (NOT AN ANSWER, PROBE FOR WHY IT'S CONVENIENT)
20. to get exercise

Commute Services/Programs

21. new option that became available
22. special program at work
23. pressure or encouragement from employer
24. GRH
25. Ozone action/Code Red days
26. no parking, parking expense
27. found carpool partner
28. NuRide (VA carpool incentive)
29. Metrochek, SmartTrip, transit subsidy, vanpool subsidy

Information/Promotion

30. advertising
31. initiated request/looked for information on my own
32. info. From Commuter Connections/Council of Governments/COG/800 number
33. Commuter Connections Web site
34. other Web site
35. word of mouth/recommendation
36. information from transit agency
37. saw highway sign
38. yellow pages
39. Other _____
99. Don't know, refused

IF Q67 = 30 (advertising), CODE Q68 = 1, DO NOT ASK Q68

Q68 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)

IF Q68 = 1 AND RESPONDENT MENTIONED MORE THAN ONE MESSAGE IN Q62, ASK Q69, OTHERWISE, SKIP TO Q70

Q69 You mentioned that you recall several advertising messages. Which message was most important in encouraging you to start or try this type of transportation? Was it … (READ RESPONSES FROM Q62)

_____ message from Q62

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

Q70. How likely is it that you will try another type of transportation for your commute to work, other than driving alone, taxi, or motorcycle, within the next year? Would you say it is … (READ RESPONSES 1-3. DO NOT READ RESPONSE 9.)

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

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

IF Q66 NE 19, 20, 21, 22, 23, OR 24, SKIP TO Q73

(Autofill previous modes for respondents currently using alternative mode (Q15) named in Q66)
IF Q66 EQ 19 AND Q15 = 5 OR 6, AUTOFILL Q72 = Q19, THEN SKIP TO Q73
IF Q66 EQ 20 AND Q15 = 7, AUTOFILL Q72 = Q19, THEN SKIP TO Q73
IF Q66 EQ 21 AND Q15 = 8 OR 9, AUTOFILL Q72 = Q19, THEN SKIP TO Q73
IF Q66 EQ 22 AND Q15 = 10, 11, 12, 13, AUTOFILL Q72 = Q19, THEN SKIP TO Q73
IF Q66 EQ 23 AND Q15 = 14,15, AUTOFILL Q72 = Q19, THEN SKIP TO Q73
IF Q66 EQ 24 AND Q15 = 2, AUTOFILL Q72 = Q19, THEN SKIP TO Q73

(Autofill duration for respondents who tried alt mode named in Q66 in past two years (Q23))
IF Q66 = 19 AND Q23 = 5 OR 6, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72
IF Q66 = 20 AND Q23 = 7, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72
IF Q66 = 21 AND Q23 = 8 OR 9, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72
IF Q66 = 22 AND Q23 = 10, 11, 12, OR 13, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72
IF Q66 = 23 AND Q23 = 14 OR 15, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72
IF Q66 = 24 AND Q23 = 2, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72

Q71. How long did you <ALT MODE FROM Q66> to work? (IF MORE THAN ONE ALT MODE NOTED IN Q66, ASK DURATION FOR ALL)

_____ months (CONVERT YEARS TO MONTHS)
_____ less than one month
_____ occasionally (tried one, emergency use) (SKIP TO Q73)
_____ still using
999. DK/Ref.

IF Q66 = 19, 20, 21, 22, 23, 24 (MORE THAN ONE OF THESE), THEN CHOOSE ALT MODE USED LONGEST TIME FOR Q72. IF MORE THAN ONE ALT MODE USED SAME AMOUNT OF TIME, CHOOSE IN ORDER: TRAIN, BUS, VANPOOL, CAPOOL, BIKE/WALK, TELECOMMUTE.

Q72a. Before trying <ALT MODE FROM Q66> to work, what type or types of transportation did you use to get to work? (PROGRAMMER, LIST MODES FOR USE IN Q72b)

FOR EACH MODE MENTIONED IN Q72a, ASK…

Q72b. About how many days per week did you use <MODE FROM Q72a>??

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

(IF Q7 = 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 before trying <ALT MODE FROM Q66>?"

(IF Q14 = 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 before trying <ALT MODE FROM Q66>?"

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

IF Q66 = 24, SKIP TO Q79
IF Q62 = 16, CODE Q73 = 1, THEN SAY "You mentioned that you saw or heard advertising for telecommuting," THEN SKIP TO Q76, OTHERWISE, CONTINUE

Q73. Have you heard, seen, or read any advertising about telecommuting/telework in the past 6 months?

1. yes
2. no (SKIP TO Q79)
9. DK/Ref (SKIP TO Q79)

IF Q15 = 2, ANY DAY OR TELEALL, ASK Q74, OTHERWISE, SKIP TO Q76

Q74. Were you telecommuting before you saw or heard the telecommute advertising?

1. yes (SKIP TO Q79)
2. no (CONTINUE)
9. DK/Ref (SKIP TO Q79)

Q75. Did the advertising encourage you to start telecommuting?

1. yes
2. no
9. DK/Ref

SKIP TO Q79

Q76. After seeing or hearing this advertising, were you more likely to consider telecommuting?

1. yes
2. no (SKIP TO Q79)
9. DK/Ref (SKIP TO Q79)

IF Q66 = 7, SKIP TO Q79

Q77. Did you ask your employer about telecommuting opportunities at your work place?

1. yes
2. no (SKIP TO Q79)
9. DK/Ref (SKIP TO Q79)

Q78. Did you try telecommuting?

1. yes
2. no
9 . DK/Ref

IF Q66 = 9 OR 11, SKIP TO Q80
IF Q62 = 10, CODE Q79 = 1, THEN SAY, “You mentioned that you saw or heard advertising for Guaranteed Ride Home.” THEN SKIP TO Q79a

Q79. 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 Q80)
9. DK/Ref (SKIP TO Q80)

Q79a. 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. no
9. DK/Ref

IF Q66 = 10 OR 13, SKIP TO Q81
IF Q62 = 17, ASK Q80, OTHERWISE, SKIP TO Q81

Q80. You mentioned that you saw or heard advertising for HOV lanes. 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. no
9. DK/Ref

Q81. Is there a phone number or web site you can use to obtain information on ridesharing, public transportation, HOV lanes, and telecommuting in the Washington region?

1. Yes (SKIP TO Q83)
2. No (ASK Q82)
9. DK/Ref (ASK Q82)

Q82. 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 Q86

Q83. 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.maryland.com	Maryland Mass Transit Admin. (MTA)
		MARC Commuter Rail
11.	www.wmata.com	WMATA, Metro
12.	www.HOVcalculator.com	VDOT

13. Other (SPECIFY) _____

Q84. Have you used this number or web site in the past year? (CHECK FOR ALL RESPONSES IN Q83)

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

IF Q83 = ONLY 2, 3, 4, 5, 7, 8, 9,10, 11, 12, 13, SKIP TO Q86

Q85. How did you find out about this number or web site? (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

IF Q83 = 1,6, CODE Q86 = 1, THEN SKIP TO Q87

Q86. Have you heard of an organization in the Washington region called Commuter Connections?

1. yes
2. no (SKIP TO Q89)
8. Don't know (SKIP TO Q89)
9. Refuse (SKIP TO Q89)

Q87. 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

Q88. 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

EMPLOYER SERVICES

(IF HOMEALL SKIP TO Q105)
(IF TELEALL SKIP TO Q105)

Q89. Next, please tell me if your employer makes any of the following commute services or benefits available to you. How about information on commuter transportation options?

1. yes
2. no SKIP TO Q90)
9. Don't know/Ref (SKIP TO Q90

Q89a. Have you received or used this information from your employer?

1. yes
2. no
9. DK/Ref

Q90. What about free on-site parking? Does your employer make that available to all employees at your worksite?

1. yes
2. no (SKIP TO Q91)
9. Don't know/Ref (SKIP TO Q93)

Q90a. Have you used this free parking?

1. yes
2. no
9. DK/Ref

SKIP TO Q93

Q91. Does your employer pay part of your parking cost or do you have to pay the entire cost if you drive to work?

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

Q92. Does your employer offer parking discounts for carpools or vanpools?

1. yes
2. no (SKIP TO Q93)
9. Don't know/Ref (SKIP TO Q93)

Q92a. Have you used this parking discount?

1. yes
2. no
9. DK/Ref

Q93. Does your employer set aside special parking spaces for carpools or vanpools?

1. yes
2. no (SKIP TO Q94)
9. Don't know/Ref (SKIP TO Q94)

Q93a. Have you used one of these special spaces?

1. yes
2. no
9. DK/Ref

Q94. Does your employer offer MetroChek, SmarTrip, or other subsidies for public transportation or vanpooling?

1. yes
2. no (SKIP TO Q95)
9. Don't know/Ref (SKIP TO Q95)

Q94a. Have you used the transit or vanpool subsidy?

1. yes
2. no
9. DK/Ref

Q95. Does your employer offer cash payments or other subsidies for carpooling?

1. yes
2. no (SKIP TO Q96)
9. Don't know/Ref (SKIP TO Q96)

Q95a. Have you used the carpool subsidy?

1. yes
2. no
9. DK/Ref

Q96. Does your employer offer any facilities or programs to employees who bike or walk to work?

1. yes
2. no (SKIP TO Q97)
9. Don't know/Ref (SKIP TO Q97)

Q96a. Have you used any of these facilities or programs?

1. yes
2. no (SKIP TO Q97)
9. DK/Ref (SKIP TO Q97)

Q96b. What have you used? (DO NOT READ)

1. Bike lockers or racks
2. Personal shower or lockers
3. Cash or subsidies for bike or walk
4. Bike club
5. Bike equipment or clothing
6. Participation in Bike to Work Day
7. Other _____
9. DK/Ref

Q97. And last, does your employer provide guaranteed rides (GRH) home in case of emergencies or unscheduled over-time? (NOTE: DOESN'T HAVE TO BE A PART OF A FORMAL GRH PROGRAM)

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

Q97a. Have you used this service or have you participated in this program? (DO NOT READ)

1. yes, used GRH trip / participate in the program (e.g., registered/signed up for, eligible for)
2. no
9. DK/Ref

GUARANTEED RIDE HOME

IF Q79 = 1 (YES, SEEN ADVERTISING), THEN AUTO FILL Q102 = 1, AND SKIP TO Q103.

Q102. Do you know if there is a regional GRH or Guaranteed Ride Home program available in the event of unexpected emergencies and unscheduled overtime for commuters who rideshare or use public transportation?

1. yes, there is
2. no , there isn't (SKIP TO Q105)
3. DK/Ref (SKIP TO Q105)

IF Q97 = 1, 2, OR 3, CODE Q103 = 1, CODE Q104 = 2, THEN SKIP TO Q105

Q103. In the past two years, have you registered for or used any guaranteed Ride Home service?

1. Yes
2. No
9. DK/Ref

} SKIP TO Q105

Q104. Who sponsored or offered the service? (DONOT READ)

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

KIOSKS

Q105. Have you ever seen any self-service computer kiosks, located in shopping malls and other public places in the Washington area, which offer information on transit and ridesharing, and other travel information?

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

} SKIP TO Q113

Q106. In the past two years, have you used one of these kiosks to obtain commute or other transportation information, other than to purchase transit or train tickets?

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

} SKIP TO Q113

Q107. Where was the kiosk that you used located? (READ ONLY IF NECESSARY; CHECK ALL THAT APPLY)

1. Ballston Common Mall
2. Fair Oaks Mall
3. La Promenda at L'Enfant Plaza
4. National Foreign Service Training Center – Arlington, VA
5. Pentagon
6. Reston Town Center
7. Springfield Mall
8. Tysons Corner Center
9. United States Department of State (State Department)
10. Union Station
11. Montgomery County (White Flint Mall, County Executive Building)
12. Fairfax County(libraries, government center, etc.)
13. Other _____

99. DK/Ref.

Q108. What information did you obtain from the kiosk? (DO NOT READ, CHECK ALL THAT APPLY; GET TOP 3 ANSWERS ONLY)

1. general rideshare information
2. carpool/vanpool matchlist
3. transit route/schedule info
4. P&R info
5. GRH information or registration
6. telecommuting information
7. HOV lane information
8. Mall/retail center information
9. Weather information
10. Traffic information (SmartTraveler)
11. Fairfax County Information
12. Maps and guides
13. Springfield Interchange construction information
14. Ozone Action/Code Red days
15. Other _____

IF TELEALL OR HOMEALL, SKIP TO Q113

Q109. Did any of the information you received encourage you to use or try another type of transportation, other than driving alone, even if only temporarily, for your commute to work?

1. Yes

2. No
9. DK/Ref.

} SKIP TO Q113

Q110. 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 IS ONLY ANSWER, SNAP BACK AND CHANGE Q109 TO "NO.")

1 N/A
2 N/A
3. drive alone in your car (N/A)
4. motorcycle (N/A)
5. carpool
6. casual carpool (slugging)
7. vanpool
8. buspool
9. bus
10. Metrorail
11. MARC
12. VRE
13. AMTRAK, other train
14. bicycle
15. walk
16 N/A
17 N/A
18 N/A
19 N/A
20 N/A
21 N/A
22. other _____

Q111. How long did you use or have you used that type of transportation?

_____ months (CONVERT YEARS TO MONTHS)

Q112. How did you usually travel to work before you obtained information from the kiosk?

1 N/A
2 N/A
3. drive alone in your car
4. motorcycle
5. carpool
6. casual carpool (slugging)
7. vanpool
8. buspool
9. bus
10. Metrorail
11. MARC
12. VRE
13. AMTRAK, other train
14. bicycle
15. walk
16 N/A
17 N/A
18 N/A
19 N/A
20 N/A
21 N/A
22. other _____

DEMOGRAPHICS

Q113 . 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? _____

Q114. 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 Q118)

88. Don't know (SKIP TO Q118)
99. Refuse (SKIP TO Q118)

Q115. How many of these household members are employed outside the home? (INCLUDING RESPONDENT)
_____employed

888. Don't know
999. Refuse
} (SKIP TO Q118)

Q116. How many work at outside job or jobs 35 hours or more per week?

_____ household members (IF = Q115, SKIP TO Q118)
888 Don't know
999 Refuse

Q117. And how many work at outside job or jobs less than 35 hours per week?

_____ household members
889 Don't know
999 Refuse

(IF TELEALL OR HOMEALL SKIP TO Q119)

Now I have a few last questions for classification purposes.

Q118. First, About how many employees work at your worksite? Is it . . . (READ CHOICES)

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

Q119. What is your occupation? _____

IF HOMEALL SKIP TO Q121, AUTO CODE "5" IN Q120

Q120. 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.

Q121. Which of the following groups includes your age? (READ CHOICES)

1. under 18
2. 18 - 24
3. 25 - 34
4. 35 - 44
5. 45 - 54
6. 55 - 64
7. 65 or older
9. Refused (DON'TREAD)

Q122. Do you consider yourself to be Latino, Hispanic, or Spanish?

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

Q123. 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

Q124. 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

(RECORD LANGUAGE OF INTERVIEW:) 1 English 2 Spanish

APPENDIX D - INSTRUCTIONS AND DEFINITIONS OF TERMS FOR 2004 SOC (STATE OF COMMUTE) - #818

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, Q72, Q110, Q112:

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 carpool 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.
Q17: 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, Q66, Q67, Q79, Q97, Q99, Q101 – Q104, etc.:
GRH Guaranteed Ride Home (otherwise known as GRH) provides commuters who regularly carpool, van-pool, 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, Q73-Q75:
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.

Q46-Q51, Q62, Q66, Q80, Q81:
HOV lane. "high occupancy vehicle" lane/carpool lane/diamond lane

Q82, Q85, Q87, Q88, Q105-Q112:
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 State of the Commute 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.

Q27: List of Telework Centers

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

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

Washington, D.C.
16. Executive Office Club

West Virginia
17. Jefferson County TeleCenter

APPENDIX E – COMPARISON OF KEY 2004 SOC RESULTS AND COMPARISONS TO 2001 SOC RESULTS

Survey of 7,200 workers in the Washington metropolitan region. Sample included 6,851 respondents who traveled outside their homes one or more weekdays per week to a job location ("regional commuters") and 349 respondents who: worked at home full-time (280), telecommuted from home full-time (53), or worked only on weekends (16). 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)

	2004	**2001**
DA/Motorcycle	71.4%	70.3%
CP	5.6%	6.9%
VP	0.3%	0.5%
Bus	4.4%	4.5%
Metrorail	11.5%	11.5%
Commuter Rail	0.9%	0.8%
Bike/walk	2.2%	2.3%
CWS	0.7%	0.9%
Telework	2.3%	2.3%

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

	2004	**2001**
DA/Motorcycle	74.1%	72.6%
CP/VP	6.1%	7.6%
Bus	4.7%	4.6%
Train	12.8%	12.7%
Bike/walk	2.3%	2.4%

- **Time of arrival at work**

	2004		**2001**
5 am to 6:59 am	14%		
7 am to 7:59 am	24%	90%	91%
8 am to 8:59 am	34%		
9 am to 9:59 am	18%		
10 am to 5:59 pm	8%		
6 pm to midnight	1%	10%	9%
12:01 am to 4:59 am	1%		

- **Average length of commute**

	2004	2001
Distance	16.5 miles	15.5 miles
Time	34 minutes	32 minutes

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

	2004	2001
No	69%	72%
Yes	31%	28%
4/40	2%	3%
9/80	3%	2%
Flextime	26%	22%

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

	2004		2001
1 – 11 months	23%		28%
12 – 24 months	23%		23%
25 – 36 months	9%		
37 – 60 months	12%	54%	49%
More than 60 months	33%		
Average duration (months)	**70 months**		**N/A**

- **Carpool/Vanpool occupancy**

	2004	2001
Carpool/slug	2.6	2.6
Vanpool	10.0	11.4

- **Access mode to rideshare/transit modes**

	2004	2001
Picked-up at home	15%	16%
Drive to driver's home	11%	11%
Drive to central location	18%	14%
Another pool/dropped off	1%	1%
Walk	39%	39%
Drive CP/VP	6%	9%
Bus/transit	9%	10%
Average access distance	3.1 miles	2.6 miles

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

	2004	**2001**
Save time	18%	20%
Changed jobs	16%	5%
Save money	14%	21%
No vehicle available	11%	19%
Moved residence	9%	3%
Avoid congestion	7%	8%
Always used	7%	2%
Tired of driving	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

	2004
Drive alone	40%
Carpool/Vanpool	6%
Bus	11%
Metrorail	8%
Commuter Rail	1%
Bike/walk	6%
Always used this mode	12%
Not working in metro area then	17%

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

	2004		**2001**
Yes	22%		24%
Average time used (months)	5 months		N/A
<u>Other Alternatives Tried</u>			
Carpool/casual carpool	3%		3%
Vanpool	<1%		<1%
Bus	7%		8%
Metrorail	11%	12%	13%
Commuter Rail	1%		
Bike/walk	3%		2%

Telecommute

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

	2004	2001
% regional workers telecommuting	12.8%	14.6%
Home-based telecommuters	95%	88%

* Note that in 2004, the definition of "telecommuter" was changed and this likely affected the proportion of total telecommuters and the percentage of those who were home-based. 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*." In 2004, the definition was, "*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*." The 2001 definition would have included some workers, such as those who work at client sites and/or who travel from one customer location to another during the course of the day, who are not actually teleworking. The 2004 definition was rewritten to exclude these workers. We note for example, that the 9% of the 2001 teleworkers said they worked in sales occupations, while only 5% of the 2004 teleworkers said they worked in sales. And in 2001, 3% of teleworkers said they teleworked at a clients site, while less than 1% of 2004 teleworkers gave this response.

- **Employer telecommute programs –** all regional commuters + FT telecommuters

	2004	2001
Employers with formal program	15%	N/A
Employers with informal TC	20%	N/A

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

	2004	2001
Regional non-telecommuters	87%	83%
Job responsibilities allow TC ("could TC")	25%	28%
Interested in TC if offered ("could and would TC")	19%	18%

- **Telecommute frequency** – current telecommuters

	2004	2001
Occasionally/special projects	10%	15%
< once per month/emergency	12%	10%
1 – 3 times per month	32%	25%
1 day per week	15%	15%
2 days per week	12%	12%
3 or more times per week	19%	23%
Mean (days per week)	**1.4**	**1.5**

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

	2004	**2001**
Less than one year	22%	22%
One to two years	27%	29%
More than two years	51%	49%

- **Reasons for telecommuting** – current telecommuters

	2004	**2001**
Save time	19%	13%
New option became available	18%	14%
Personal circumstances (e.g. weather)	10%	3%
Get more work done	9%	11%
Convenient	8%	2%
Stay with family or children	7%	11%
Changed jobs	6%	6%
Tired of driving	6%	6%

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

	2004	**2001**
Special program at work	56%	42%
Word of mouth	18%	19%
Initiated request on my own	16%	23%
Commuter Connections/COG	**5%**	**5%**
Advertising	3%	6%

Awareness/Attitudes Toward Transportation Options

- **HOV lane availability and use** – all regional commuters

	2004	2001
Commuters with lane available on route to work	29%	27%
Use lanes	8%	7%
Average days/week using HOV	4.3	N/A
Average time saving – one way trip	25 min.	22 min.

- **Park & Ride availability and use** – all regional commuters

	2004	2001
Know locations of P&R lots	40%	42%
Used P&R in past year	7%	7%

- **Reasons for not riding bus** – regional commuters who don't currently use bus

	2004	2001
Trips takes too much time	32%	27%
Need car for work	15%	19%
No bus service	13%	14%
Work schedule irregular	8%	7%
Trip too long – distance too far	7%	7%
Bus unreliable/late	5%	5%

- **Reasons for not riding train** – regional commuters who don't currently use train

	2004	2001
No train service	37%	38%
Trips takes too much time	21%	16%
Need car for work	14%	18%
Trip too long – distance too far	6%	5%
Work schedule irregular	5%	5%

- **Reasons for not carpooling/vanpooling** – regional commuters who don't currently CP or VP

	2004	2001
Need car for work	12%	12%
Don't know anyone to CP/VP with	47%	48%
Work schedule irregular	20%	18%
Doesn't save time	5%	4%
Need car before or after work	7%	7%

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

	2004	**2001**
Easier	14%	N/A
More difficult	29%	N/A
About the same	54%	N/A
Reasons commute is easier		
Shorter distance	44%	
Route less congested	19%	
Faster trip, less time	21%	
Less stressful	9%	
Reasons commute is more difficult		
Route more congested	81%	
Longer distance	11%	
Slower trip, more time	11%	
More stressful	5%	

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)

	2004	2001
Yes	55%	55%
Ad messages recalled		
You can CP/VP	16%	9%
GRH	12%	3%
Use bus/train, Metro	7%	N/A
New buses/trains coming	7%	4%
Call Commuter Connections, CC web site	6%	5%
Telecommuting	3%	2%

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

	2004	2001
More likely to consider RS/transit	18%	28%
Too actions to change commute	2%	N/A
Advertising encouraged action taken	68%	(of respondents who took action)
Actions taken		
Sought commute info (internet, family, commute organization, other source)	1.6%	
Changed route to work	0.1%	
Tried alt mode	0.2%	

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

	2004	2001
Heard, seen, or read TC ads	31%	N/A

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

	2004	2001
Heard, seen, or read GRH ads	56%	N/A
Know about regional GRH	56%	
Sought GRH information	3%	
Registered for any GRH program	6%	
Registered for COG GRH program	1.4%	

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

	2004	**2001**
Know regional number/web site available	55%	33%
Named CC as source (unprompted)	6%	5%
Used any number/web site in past year	11%	10%
Used CC number/web site in past year	1%	N/A

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

	2003	**2002**
Yes – unprompted (named CC without prompt)	6%	5%
Yes – prompted (knew of CC when prompted)	58%	N/A

CC services recalled (respondents aware of CC)

GRH	40%
CP/VP, ridematch info	28%
Help finding CP/VP partners	16%
Transit information	5%
Telecommute info	2%

Employer Services

- **Employer offers TDM services** – all non-self employed commuters

	2004	2001
Discount/free transit pass	31%	29%
Information on commute options	22%	25%
Preferential parking for CPVP	16%	19%
Bike/ped facilities or services	14%	9%
GRH	12%	19%
Parking discounts for CP/VP	4%	4%
CP financial incentive	4%	7%
None – employer doesn't offer any	47%	49%

- **Respondent used TDM services** (respondents who have access to services)*

	2004	2001
Discount/free transit pass	41%	31%
Information on commute options	45%	3%
Preferential parking for CPVP	20%	2%
Bike/ped facilities or services	16%	3%
Bike lockers or racks	11%	17%
Personal showers/lockers	9%	10%
GRH	25%	18%
Parking discounts for CP/VP	28%	N/A
CP financial incentive	18%	3%

* Note that in 2004, this series of questions was altered. In 2001, respondents were asked if the employer offered each of the services listed above, then were asked to name any services they had used. In 2004, respondents were asked a two-question series about each service: did the employer offer it and, if it was offered, did the respondent use that service. It is likely that this approach could have resulted in higher recall of use for some services in 2004 than was noted in 2001, with the single, non-service specific, question about service use.

- **Employer offers parking services** – all non-self employed commuters

	2004	2001
Free on-site parking	66%	65%
Free off-site parking	3%	3%
Employee pays full parking charge	21%	23%
Employer pays part of parking charge	6%	6%

Kiosks

- **Awareness and use of kiosks** – all regional commuters

	2004	2001
Seen kiosks in past two years	11%	15%
Used kiosks for commute info		
Of respondents who saw kiosks	13%	13%
Of all respondents	1.3%	2%
Info obtained (respondents who used kiosks)		
Transit route/schedule info	46%	46%
Rideshare info	18%	18%
Maps and guides	7%	21%
SmartTraveler	4%	2%
GRH info	2%	4%
Carpool/vanpool matchlist	1%	3%

- **Used info to try alt mode** (respondents who obtained commute info from kiosks, note sample sizes are small for both years: 2001 – 27 respondents and 2004 – 18 respondents)

	2004	2001
Yes	17%	22%
Alt Modes Tried		
Bus	45%	41%
Train	41%	37%
Carpool/vanpool	8%	26%
Bike	6%	0%
Previous Modes Used		
Drive alone	76%	52%
Bus	6%	4%
Train	4%	19%
Carpool/vanpool	8%	26%
Bike	2%	0%

Demographics

- **States of Residence and Employment** – all respondents

	Residence		Employment	
	2004	**2001**	**2004**	**2001**
DC	11%	12%	29%	30%
MD	45%	48%	32%	32%
VA	44%	41%	37%	34%
Other/Ref	0%	0%	2%	4%

- **Employer type** – all respondents

	2004	**2001**
Federal agency	22%	20%
State/local government	13%	14%
Non-profit organization	10%	10%
Private sector	49%	50%
Self-employed	7%	7%

- **Employer size** – all respondents

	2004	**2001**
1 – 25 employees	25%	30%
26 – 50 employees	12%	12%
51 – 100 employees	12%	11%
101 – 250 employees	13%	12%
251 – 999 employees	15%	14%
1,000 employees	25%	22%

- **Age** – all respondents

	2004	**2001**
Under 18	1%	1%
18 – 24	6%	9%
25 – 34	21%	23%
35 – 44	28%	29%
45 – 54	27%	25%
55 – 64	14%	10%
65 or older	3%	3%

- **Gender** – all respondents

	2004	**2001**
Female	55%	54%
Male	45%	46%

- **Income** – all respondents

	2004		2001
Under $20,000	2%		3%
$20,000 – $29,999	4%		6%
$30,000 – $39,999	8%		9%
$40,000 – $59,999	14%		18%
$60,000 – $79,999	17%		19%
$80,000 – $99,999	16%		15%
$100,000 – $119,999	14%		
$120,000 – $139,999	7%	39%	30%
$140,000 – $159,999	5%		
$160,000 or more	13%		

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

	2004	2001
Hispanic/Latino	6%	6%
White	64%	61%
Black/African-American	23%	23%
Asian	5%	5%
Other/Mixed	2%	5%