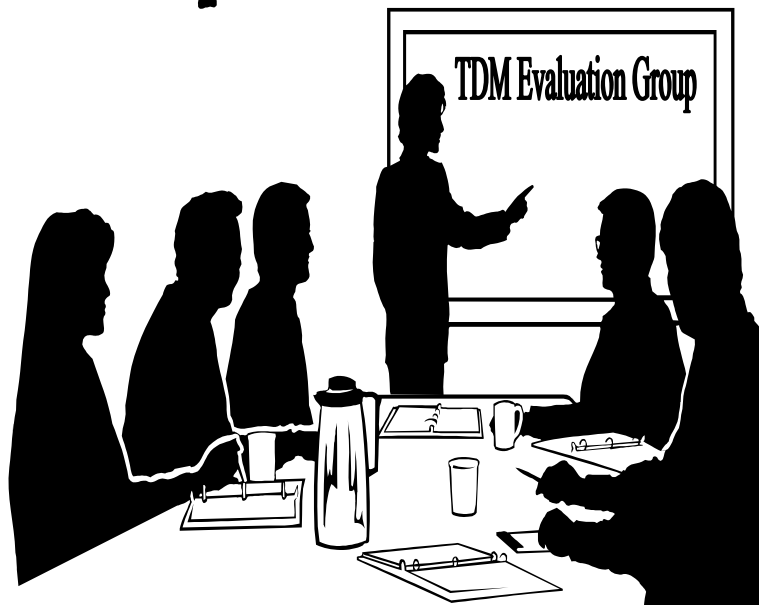


# HANDOUTS

from previous meeting



October 16, 2007

## ITEM #2

Results from 2007GRH Survey  
Comparison on Key Questions  
Telephone Survey vs Internet Survey

### Survey and Analysis Overview

GRH survey performed in two components – telephone and internet

Objective of Dual Survey Method:

- Replicate 2004 telephone method for consistent comparison
- Pilot survey of internet / web-based administration of GRH survey
- Test internet application for future Commuter Connections applicant surveys
- Highlight issues / survey modifications needed to use internet in lieu of or as supplement to telephone survey

### Sample Selection:

Telephone survey:

- Random sample of 1,001 respondents from the GRH database
- Sample selected before internet sample to be consistent with 2001 and 2004 surveys
- Survey sample included
  - 793 respondents with email addresses (confidence level 95%  $\pm$  3.4%)
  - 208 of respondents without email addresses (confidence level 95%  $\pm$  6.8%)
- 70% response rate

Internet survey:

- Sample selected after telephone sample
- Random sample of respondents who had email addresses and who were not chosen for telephone survey
- Survey sample included
  - 421 of respondents with email addresses (confidence level 95%  $\pm$  4.7%)
- ~30-40% % response rate

### Analysis:

- Compare overall telephone and internet survey results
- Compare telephone results for respondents with and without email addresses
- Highlight areas of missing data in internet survey

### Overall Findings

- Some uncertainty about response rate, but achieved acceptable survey response rate
- Few significant differences between the population surveyed in the telephone survey and those surveyed in the internet survey.
- Slight differences between applicants with email addresses and those without.
- Very little issue with missing data for open-ended questions.
  - In fact, respondents appeared to include more “write-in” responses to open-ended questions.
  - Higher levels of missing data in date of registration, duration of registration, ethnicity/race, income, and how heard about GRH.
- High internet availability
  - More than 8 in 10 respondents (84%) provided email addresses in database
  - 98% of respondents have access to internet at home or work
  - Recent applicants are more likely to provide email addresses, thus it appears email access will be more common in future years.
- **Conclusion – GRH could be fielded via internet, with combination of mail and email alert letters. To ensure that all respondents have equal access, respondents who cannot be contacted by email could be offered telephone survey option.**

### HIGHLIGHTS OF ANALYSIS RESULTS

- **Email and Internet Availability** – Broad availability of internet access for all GRH applicants. And 84% of all applicants provided an email address.

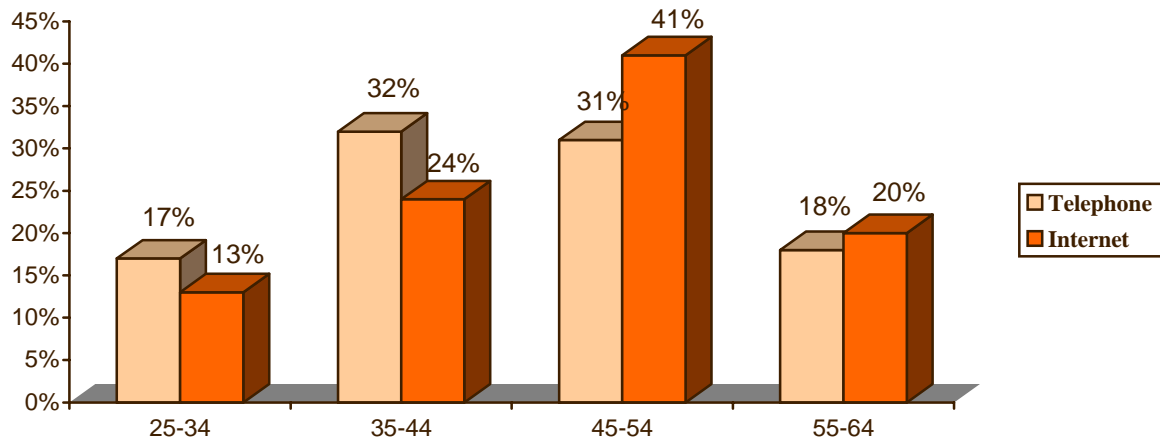
|                                 | Telephone Survey |            |            | Internet Survey |
|---------------------------------|------------------|------------|------------|-----------------|
|                                 | Overall          | Email      | NoEmail    |                 |
| Email address provided          | 84%              | 100%       | 0%         | 100%            |
| Internet available home or work | <u>99%</u>       | <u>99%</u> | <u>98%</u> | 100%            |

### Demographics

No significant differences in most demographic characteristics – single exception is age.

- **Age** – all respondents – Internet survey respondents were slightly older than were the telephone survey respondents.

|             | Telephone Survey |       |         | Internet Survey |
|-------------|------------------|-------|---------|-----------------|
|             | Overall          | Email | NoEmail |                 |
| 18 – 24     | 1%               | <1%   | 1%      | <1%             |
| 25 – 34     | 17%              | 17%   | 16%     | 13%             |
| 35 – 44     | 32%              | 34%   | 26%     | 24%             |
| 45 – 54     | <u>31%</u>       | 30%   | 36%     | <u>41%</u>      |
| 55 – 64     | <u>18%</u>       | 17%   | 18%     | <u>20%</u>      |
| 65 or older | 1%               | <1%   | 2%      | 2%              |



- **States of Residence and Employment** – No significant differences in resident or work locations.

| Resident Location | Telephone Survey |              |                | Internet Survey |
|-------------------|------------------|--------------|----------------|-----------------|
|                   | <u>Overall</u>   | <u>Email</u> | <u>NoEmail</u> |                 |
| DC                | 1%               | 1%           | 1%             | 1%              |
| Maryland          | 34%              | 34%          | 29%            | 34%             |
| Virginia          | 64%              | 63%          | 69%            | 64%             |
| Other/Ref         | 1%               | 2%           | 1%             | 2%              |

| Work Location | Telephone Survey |              |                | Internet Survey |
|---------------|------------------|--------------|----------------|-----------------|
|               | <u>Overall</u>   | <u>Email</u> | <u>NoEmail</u> |                 |
| DC            | 61%              | 61%          | 58%            | 60%             |
| Maryland      | 9%               | 1%           | 6%             | 10%             |
| Virginia      | 30%              | 28%          | 37%            | 29%             |

- **Income** – all respondents – No significant differences in income distribution.

|                       | Telephone Survey |              |                | Internet Survey |
|-----------------------|------------------|--------------|----------------|-----------------|
|                       | <u>Overall</u>   | <u>Email</u> | <u>NoEmail</u> |                 |
| Under \$40,000        | 2%               | 1%           | 6%             | 1%              |
| \$40,000 – \$59,999   | 9%               | 9%           | 10%            | 12%             |
| \$60,000 – \$79,999   | 17%              | 18%          | 14%            | 12%             |
| \$80,000 – \$99,999   | 19%              | 19%          | 19%            | 17%             |
| \$100,000 – \$119,999 | 20%              | 19%          | 24%            | 22%             |
| \$120,000 – \$139,999 | 10%              | 11%          | 5%             | 15%             |
| \$140,000 – \$159,999 | 8%               | 8%           | 9%             | 7%              |
| \$160,000 or more     | 14%              | 14%          | 12%            | 14%             |

- **Ethnic/Racial background** – all respondents – No significant differences in income distribution.

|                        | Telephone Survey |              |                | Internet Survey |
|------------------------|------------------|--------------|----------------|-----------------|
|                        | <u>Overall</u>   | <u>Email</u> | <u>NoEmail</u> |                 |
| Hispanic/Latino        | 4%               | 5%           | 2%             | 1%              |
| White                  | 65%              | 64%          | 67%            | 73%             |
| Black/African-American | 20%              | 21%          | 17%            | 18%             |
| Asian                  | 9%               | 6%           | 11%            | 5%              |
| Other/Mixed            | 2%               | 3%           | 3%             | 3%              |

- **Gender** – all respondents – No significant differences in gender distribution.

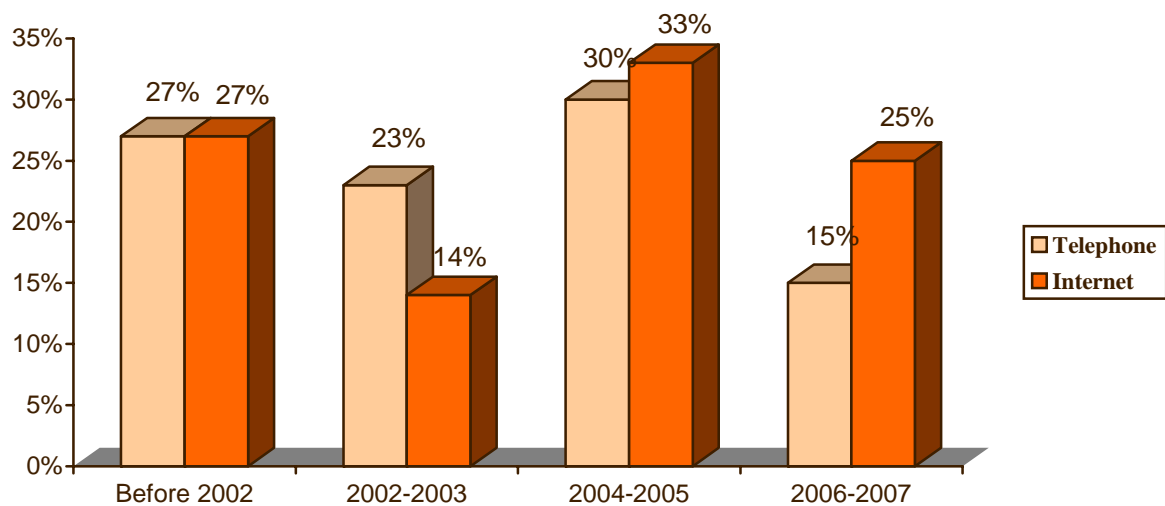
|        | Telephone Survey |       |         | Internet Survey |
|--------|------------------|-------|---------|-----------------|
|        | Overall          | Email | NoEmail |                 |
| Female | 57%              | 58%   | 54%     | 57%             |
| Male   | 43%              | 42%   | 46%     | 43%             |

### Registration Information

Most obvious differences between telephone and internet were in registration characteristics.

- **Year Registered** – Percentage of all registrants – **Internet survey respondents were more likely to have registered recently. Respondents who did not provide email addresses were more likely to have registered many years ago.**

|           | Telephone Survey |       |         | Internet Survey |
|-----------|------------------|-------|---------|-----------------|
|           | Overall          | Email | NoEmail |                 |
| Pre 2002  | 27%              | 24%   | 36%     | 27%             |
| 2002 – 03 | 23%              | 23%   | 23%     | 14%             |
| 2004 – 05 | <b>30%</b>       | 37%   | 31%     | <b>33%</b>      |
| 2006 – 07 | <b>15%</b>       | 16%   | 11%     | <b>25%</b>      |



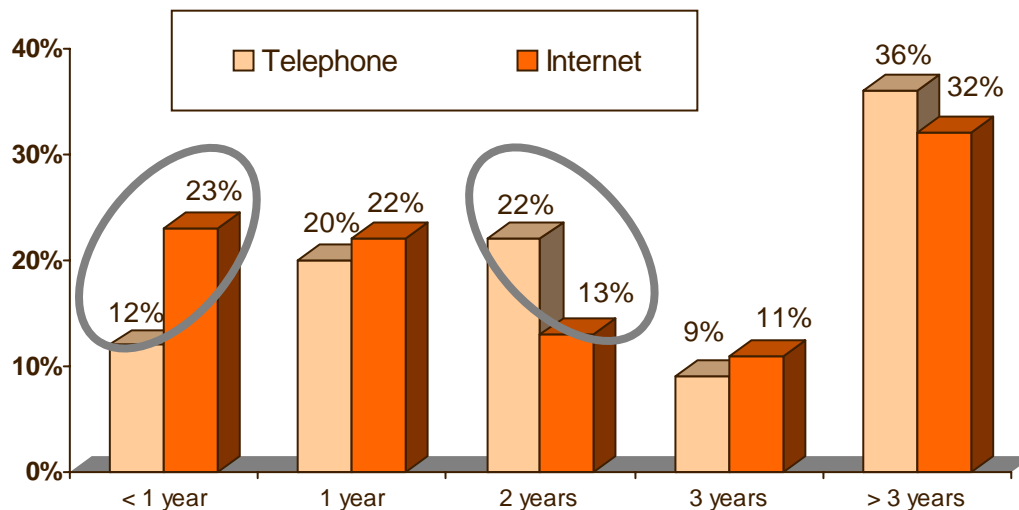
- **Registration Status** – Percentage of all respondents (self-defined in survey) – **A larger share of**

respondents who did not provide email addresses were past registrants.

|                    | Telephone Survey |            |            | Internet Survey |
|--------------------|------------------|------------|------------|-----------------|
|                    | Overall          | Email      | NoEmail    |                 |
| Current registrant | 61%              | 65%        | 48%        | 61%             |
| Past registrant    | 39%              | <b>35%</b> | <b>52%</b> | 39%             |

- **Length of Time in GRH** – Percentage of all registrants – Internet survey respondents had been participating in GRH shorter duration than had telephone respondents.

|                   | Telephone Survey |       |         | Internet Survey |
|-------------------|------------------|-------|---------|-----------------|
|                   | Overall          | Email | NoEmail |                 |
| Less than 1 year  | <b>13%</b>       | 16%   | 4%      | <b>23%</b>      |
| 1 year            | 20%              | 23%   | 12%     | 22%             |
| 2 years           | <b>22%</b>       | 19%   | 31%     | <b>13%</b>      |
| 3 years           | 9%               | 9%    | 11%     | 11%             |
| More than 3 years | 36%              | 34%   | 42%     | 32%             |



- **Reasons for Not Re-registering** – Past registrants only – Minor differences in reasons for not re-registering (But note very small sample sizes for this question).

|  | Telephone Survey |       |         | Internet Survey |
|--|------------------|-------|---------|-----------------|
|  | Overall          | Email | NoEmail |                 |
| <u>Program Related Reasons</u>         |                  |       |         |                 |
| n =                                    | 64               | 42    | 22      | 55              |
| Didn't get around to it, forgot        | 24%              | 22%   | 27%     | 31%             |
| Never used program                     | 17%              | 17%   | 18%     | 9%              |
| Didn't know I had to re-register       | <b>11%</b>       | 14%   | 5%      | <b>26%</b>      |
| Couldn't rideshare/use transit 2+ d/wk | 6%               | 2%    | 14%     | 4%              |
| CP/VP/Transit didn't work out          | 5%               | 7%    | 0%      | 6%              |
| <u>Personal Circumstance Reasons</u>   |                  |       |         |                 |
| Changed job/work hours                 | <b>25%</b>       | 29%   | 18%     | <b>6%</b>       |
| Needed car for work/other purpose      | 6%               | 7%    | 5%      | 0%              |
| Moved to different residence           | 6%               | 2%    | 14%     | 4%              |
| Dissatisfied with program              | 0%               | 0%    | 0%      | 2%              |
| Too much effort to use program         | 0%               | 0%    | 0%      | 2%              |
| Other                                  | 2%               | 2%    | 2%      | 6%              |



## GRH Information Sources

No significant differences in GRH information sources for telephone and internet respondents. Slight differences between respondents who provided email address and those who did not provide an email address.

- **How Heard About GRH** – Percentage of all respondents – No significant differences in sources of information between telephone and internet respondents.

|                              | Telephone Survey |              |                | Internet Survey |
|------------------------------|------------------|--------------|----------------|-----------------|
|                              | <u>Overall</u>   | <u>Email</u> | <u>NoEmail</u> |                 |
| Word of mouth – referral     | 34%              | <u>36%</u>   | <u>27%</u>     | 32%             |
| Radio                        | 16%              | <u>18%</u>   | <u>8%</u>      | 14%             |
| Internet                     | 11%              | 11%          | 11%            | 6%              |
| Employer/employee survey     | 7%               | 4%           | 14%            | 7%              |
| Brochure/promo materials     | 7%               | <u>5%</u>    | <u>15%</u>     | 2%              |
| Direct mail/postcard from CC | 6%               | 6%           | 5%             | 3%              |
| Bus/train sign               | 4%               | 4%           | 2%             | 2%              |
| Bus/train schedule           | 4%               | 3%           | 5%             | <1%             |
| TV                           | 3%               | 2%           | 6%             | 2%              |
| Newspaper                    | 2%               | 1%           | 3%             | 3%              |
| Newsletter                   | 2%               | 2%           | 2%             | 0%              |
| Other rideshare organization | 2%               | 3%           | <1%            | 7%              |
| Fair/on-site event           | 2%               | 2%           | 2%             | 1%              |
| Vanpool                      | 1%               | 1%           | 0%             | 3%              |
| VRE                          | <1%              | <1%          | <1%            | 4%              |

- **Awareness/influence of GRH Advertising** – Percentage of all respondents – No significant differences in awareness of GRH ads or motivation after hearing ads.

|                                      | Telephone Survey |              |                | Internet Survey |
|--------------------------------------|------------------|--------------|----------------|-----------------|
|                                      | <u>Overall</u>   | <u>Email</u> | <u>NoEmail</u> |                 |
| Heard or saw GRH advertising         | 57%              | 59%          | 53%            | 56%             |
| Registered after hearing ads         | 36%              | 35%          | 38%            | 39%             |
| Ad encouraged respondent to register | 34%              | 33%          | 38%            | 11%             |

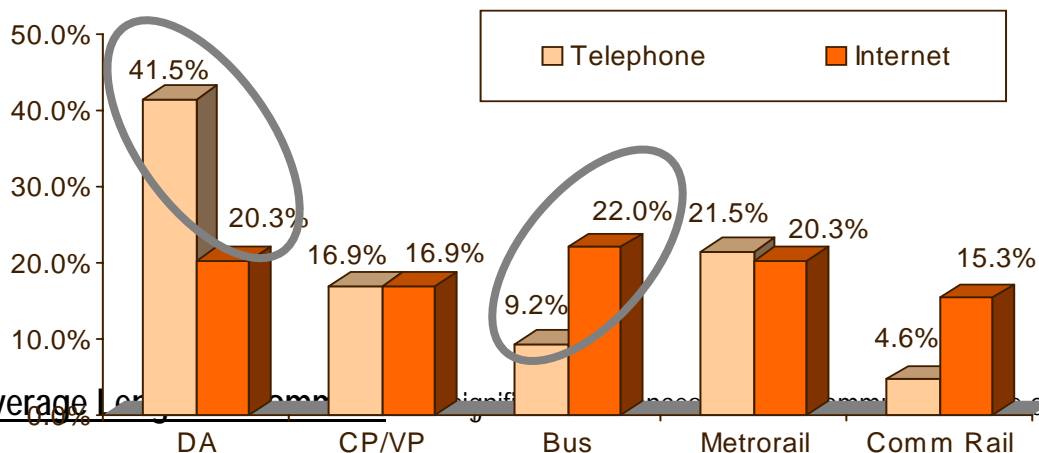
### Current Travel Patterns

- **Current Mode Split** – Primary mode – No significant differences in current mode for respondents of telephone and internet surveys who were currently registered for GRH.

**Notable difference between telephone and internet surveys for DA rate for past registrants, but the sample sizes are quite small.**

| <u>Current Registrants</u> | Telephone Survey<br><u>Overall</u> | Internet<br><u>Survey</u> |
|----------------------------|------------------------------------|---------------------------|
| n =                        | 935                                | 362                       |
| DA/Motorcycle              | 6.0%                               | 4.1%                      |
| CP/VP                      | 35.7%                              | 34.8%                     |
| Bus                        | 21.8%                              | 24.0%                     |
| Metrorail                  | 17.4%                              | 15.2%                     |
| Commuter Rail              | 18.1%                              | 20.2%                     |
| Bike/walk                  | 0.4%                               | 1.1%                      |
| Telecommute                | 0.5%                               | 0.6%                      |

| <u>Past Registrants</u> | Telephone Survey<br><u>Overall</u> | Internet<br><u>Survey</u> |
|-------------------------|------------------------------------|---------------------------|
| n =                     | 65                                 | 59                        |
| DA/Motorcycle           | <b>41.5%</b>                       | <b>20.3%</b>              |
| CP/VP                   | 16.9%                              | 16.9%                     |
| Bus                     | <b>9.2%</b>                        | <b>22.0%</b>              |
| Metrorail               | 21.5%                              | 20.3%                     |
| Commuter Rail           | 4.6%                               | 15.3%                     |
| Bike/walk               | 3.1%                               | 3.4%                      |
| Telecommute             | 3.1%                               | 1.7%                      |



- **Average** ...

|                  | Telephone Survey |              |                | Internet Survey |
|------------------|------------------|--------------|----------------|-----------------|
|                  | <u>Overall</u>   | <u>Email</u> | <u>NoEmail</u> |                 |
| Distance (miles) | 34.5 mi          | 34.1 mi      | 35.7 mi        | 33.8 mi         |
| Time (minutes)   | 63 min           | 64 min       | 60 min         | 65 min          |

- **“Pre-GRH” Primary Modes** – Percentage of all registrants – modes used before participating in GRH – **Slight differences in Pre-GRH DA and Commuter rail mode splits for telephone and internet surveys.**

| n =           | Telephone Survey |              |                | Internet Survey |
|---------------|------------------|--------------|----------------|-----------------|
|               | <u>Overall</u>   | <u>Email</u> | <u>NoEmail</u> |                 |
|               | 918              | 727          | 191            | 408             |
| DA/Motorcycle | <b>28.4%</b>     | 30.9%        | 21.1%          | <b>19.1%</b>    |
| CP/VP         | 25.5%            | 23.5%        | <b>31.4%</b>   | <b>22.0%</b>    |
| Bus           | 16.2%            | 16.5%        | 15.6%          | 17.1%           |
| Metrorail     | 17.1%            | 17.0%        | 17.0%          | 21.6%           |
| Commuter Rail | <b>11.2%</b>     | 10.0%        | 14.8%          | <b>17.8%</b>    |
| Bike/walk     | 1.6%             | 2.2%         | 0.0%           | 2.3%            |

- **“With-GRH” Primary Modes** – Percentage of all registrants – modes used while participating in GRH – No significant differences in mode split for the “with-GRH” time period.

| n =           | Telephone Survey |              |                | Internet Survey |
|---------------|------------------|--------------|----------------|-----------------|
|               | <u>Overall</u>   | <u>Email</u> | <u>NoEmail</u> |                 |
|               | 1,001            | 793          | 208            | 421             |
| DA/Motorcycle | 9.6%             | 8.7%         | 12.8%          | 5.8%            |
| CP/VP         | 33.2%            | 32.4%        | 36.7%          | 28.5%           |
| Bus           | 22.3%            | 25.8%        | 12.7%          | 25.9%           |
| Metrorail     | 16.6%            | 16.8%        | 16.7%          | 17.0%           |
| Commuter Rail | 15.8%            | 14.3%        | 20.9%          | 19.7%           |
| Bike/walk     | 1.5%             | 2.0%         | 0.0%           | 2.7%            |

- **Average Days Using Alternative Modes “Pre-GRH”** – Percentage of all registrants – number of days using carpool, vanpool, transit, bike, or walk for commuting before registering/participating in GRH. **A larger share of internet survey respondents had been using alt modes pre-GRH.**

| n =               | Telephone Survey |       |         | Internet Survey |
|-------------------|------------------|-------|---------|-----------------|
|                   | Overall          | Email | NoEmail |                 |
|                   | 918              | 727   | 191     | 408             |
| 0 days/week       | <b>27%</b>       | 29%   | 21%     | <b>17%</b>      |
| 1 day/week        | 0%               | 0%    | 0%      | <1%             |
| 2 days/week       | 2%               | 2%    | 0%      | 1%              |
| 3 days/week       | 2%               | 2%    | 0%      | 4%              |
| 4 days/week       | 10%              | 10%   | 11%     | 10%             |
| 5 days/week       | 60%              | 57%   | 68%     | 62%             |
| Average days/week | 3.5              | 3.3   | 3.8     | 3.6             |

- **Average Days Using Alternative Modes “With-GRH”** – Percentage of all registrants – number of days using carpool, vanpool, transit, bike, or walk for commuting while registered/participating in GRH. **Telephone survey respondents were more likely to say they had 0 days of alt mode use while in GRH.**

| n =               | Telephone Survey |       |            | Internet Survey |
|-------------------|------------------|-------|------------|-----------------|
|                   | Overall          | Email | NoEmail    |                 |
|                   | 1,001            | 793   | 208        | 421             |
| 0 days/week       | <b>10%</b>       | 9%    | <b>13%</b> | <b>3%</b>       |
| 1 day/week        | 1%               | 1%    | 0%         | 1%              |
| 2 days/week       | 0%               | 0%    | 1%         | 2%              |
| 3 days/week       | 3%               | 4%    | 0%         | 6%              |
| 4 days/week       | 14%              | 14%   | 14%        | 23%             |
| 5 days/week       | 71%              | 72%   | 71%        | 65%             |
| Average days/week | 4.3              | 4.3   | 4.2        | 4.4             |

- **Length of Time using Alternative Modes** – Respondents who currently use alternative modes  
 - **Internet survey respondents had used their alt modes the shortest time. Telephone respondents who did not provide email addresses had been using their alt modes the longest time.**

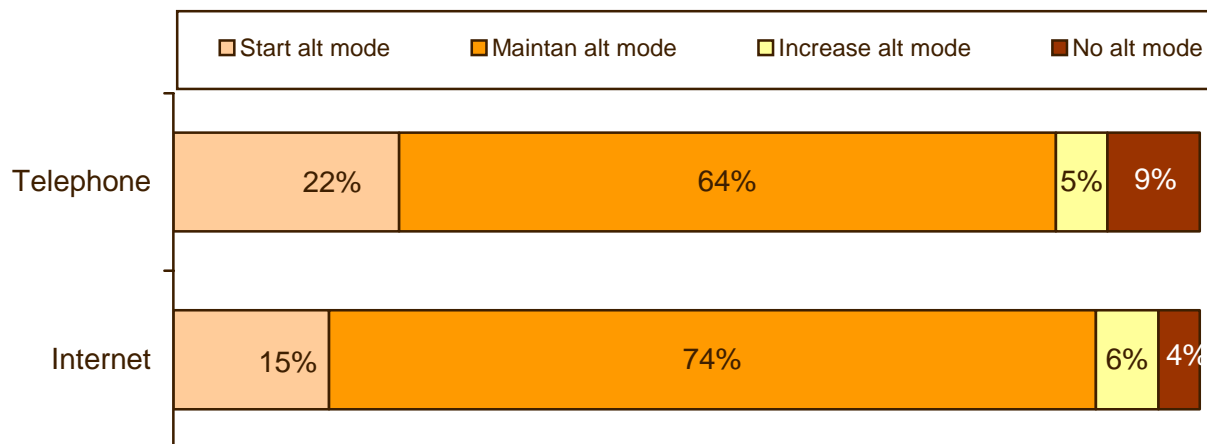
|                               | Telephone Survey        |              |                | Internet Survey         |
|-------------------------------|-------------------------|--------------|----------------|-------------------------|
|                               | <u>Overall</u>          | <u>Email</u> | <u>NoEmail</u> |                         |
| 1 – 11 months                 | 9%                      | 8%           | 10%            | 15%                     |
| 12 – 23 months                | 9%                      | 11%          | 5%             | 18%                     |
| 24 – 35 months                | 12%                     | 12%          | 11%            | 9%                      |
| 36 – 59 months                | 20%                     | 22%          | 13%            | 26%                     |
| 60 + months (5 or more years) | <b><u>50%</u></b>       | 47%          | 62%            | <b><u>32%</u></b>       |
| Average duration (months)     | <b><u>87 months</u></b> | 80 months    | 109 months     | <b><u>65 months</u></b> |

## Influence of GRH on Commute Pattern Decisions

- **Alternative Mode Changes from “Pre-GRH” to “With-GRH”** – All respondents\* - **Internet survey respondents were slightly less likely to have started a new alt mode and more likely to have maintained use of an existing mode. This is consistent with the results that showed greater “pre-GRH” alt mode use among internet survey users.**

|                              | Telephone Survey |       |         | Internet Survey |
|------------------------------|------------------|-------|---------|-----------------|
|                              | Overall          | Email | NoEmail |                 |
| Started using alt mode       | <u>22%</u>       | 24%   | 16%     | <u>15%</u>      |
| Maintained use of alt mode   | <u>64%</u>       | 62%   | 67%     | <u>74%</u>      |
| Increased alt mode frequency | 5%               | 5%    | 4%      | 6%              |
| No alt mode “with-GRH”       | 9%               | 9%    | 13%     | 4%              |

\* Note - table does not include respondents who did not commute in metro area before joining GRH.



- **Importance of GRH to Decision to Start Using Alternative Mode** – Respondents who started alt modes when they registered for GRH – Telephone survey respondents were less likely to rate GRH as very important to decisions to start using alt modes, but this result was influenced by the low importance ratings for “no email” respondents and the sample sizes are very small.

|                      | Telephone Survey |       |         | Internet Survey |
|----------------------|------------------|-------|---------|-----------------|
|                      | Overall          | Email | NoEmail |                 |
| n=                   | 199              | 168   | 31      | 62              |
| Very important       | 50%              | 55%   | 25%     | 47%             |
| Somewhat important   | 19%              | 17%   | 47%     | 33%             |
| Not at all important | <b>31%</b>       | 29%   | 28%     | <b>20%</b>      |

- **Importance of GRH to Decision to Maintain Use of Alternative Mode** – Respondents who were using alt modes before they registered for GRH – Slight differences in importance ratings for respondent who previously used alt modes.

|                      | Telephone Survey |       |         | Internet Survey |
|----------------------|------------------|-------|---------|-----------------|
|                      | Overall          | Email | NoEmail |                 |
| n=                   | 604              | 474   | 130     | 294             |
| Very important       | 43%              | 42%   | 44%     | 34%             |
| Somewhat important   | 31%              | 34%   | 24%     | 36%             |
| Not at all important | 26%              | 24%   | 32%     | 30%             |

- **Importance of GRH to Decision to Increase Use of Alternative Mode** – Respondents who were using alt modes before they registered for GRH and increased the frequency of alt mode use

|                      | Telephone Survey |       |         | Internet Survey |
|----------------------|------------------|-------|---------|-----------------|
|                      | Overall          | Email | NoEmail |                 |
| n=                   | 32               | 25    | 7       | 23              |
| Very important       | 28%              | 28%   | 26%     | 50%             |
| Somewhat important   | 38%              | 44%   | 13%     | 28%             |
| Not at all important | 35%              | 28%   | 61%     | 22%             |

- **Likely to Start Using Alternative Mode if GRH not Available** – Respondents who started alt modes when they registered for GRH – **Significant differences in likelihood to start using alt modes for telephone and internet survey respondents.**

|                   | Telephone Survey |              |                | Internet Survey |
|-------------------|------------------|--------------|----------------|-----------------|
|                   | <u>Overall</u>   | <u>Email</u> | <u>NoEmail</u> | <u>Survey</u>   |
| n=                | 201              | 169          | 32             | 62              |
| Very likely       | <b>65%</b>       | 62%          | 68%            | <b>37%</b>      |
| Somewhat likely   | 24%              | 23%          | 29%            | 42%             |
| Not at all likely | 11%              | 12%          | 4%             | 20%             |

- **Likely to Maintain Use of Alternative Mode if GRH not Available** – Respondents who were using alt modes before they registered for GRH – No differences in likely to maintain alt mode use.

|                   | Telephone Survey |              |                | Internet Survey |
|-------------------|------------------|--------------|----------------|-----------------|
|                   | <u>Overall</u>   | <u>Email</u> | <u>NoEmail</u> | <u>Survey</u>   |
| n=                | 603              | 473          | 130            | 281             |
| Very likely       | 66%              | 70%          | 55%            | 65%             |
| Somewhat likely   | 25%              | 23%          | 31%            | 28%             |
| Not at all likely | 9%               | 8%           | 14%            | 7%              |

- **Likely to Increase Use of Alternative Mode if GRH not Available** – Respondents who were using alt modes before they registered for GRH and increased the frequency of alt mode use

|                   | Telephone Survey |              |                | Internet Survey |
|-------------------|------------------|--------------|----------------|-----------------|
|                   | <u>Overall</u>   | <u>Email</u> | <u>NoEmail</u> | <u>Survey</u>   |
| n=                | 33               | 26           | 7              | 17              |
| Very likely       | 48%              | 41%          | 74%            | 18%             |
| Somewhat likely   | 21%              | 21%          | 20%            | 61%             |
| Not at all likely | 32%              | 38%          | 7%             | 22%             |



- **Other Assistance/Benefit** – Other assistance that influenced decision to start, continue, or increase use of alternative mode – All respondents – No significant difference in other influential assistance received.

|   | Telephone Survey |              |                | Internet Survey |
|---|------------------|--------------|----------------|-----------------|
|   | <u>Overall</u>   | <u>Email</u> | <u>NoEmail</u> |                 |
| None  | 53%              | 51%          | 61%            | 54%             |
| Discount/free transit pass, Metrochek, SmarTrip | 35%              | 38%          | 28%            | 24%             |
| Other cash incentive                            | 3%               | 2%           | 3%             | 4%              |
| Assistance from employer                        | 3%               | 3%           | 3%             | <1%             |
| Other   | 2%               | 2%           | 6%             | 1%              |

- **Other Influential Factors or Circumstances** – Other factors that influenced decision to start, continue, or increase use of alternative mode – All respondents – **Internet respondents wrote in many other factors. They were much less likely to note “didn’t want to drive” than were telephone respondents. But they were slightly more likely to note “stress” and “traffic congestion” than were telephone respondents, so these responses could be related. No other significant differences in motivating factors.**

|                               | Telephone Survey  |              |                | Internet Survey   |
|-------------------------------|-------------------|--------------|----------------|-------------------|
|                               | <u>Overall</u>    | <u>Email</u> | <u>NoEmail</u> |                   |
| None                          | <b><u>31%</u></b> | 31%          | 32%            | <b><u>11%</u></b> |
| Didn’t want to drive          | <b><u>41%</u></b> | 41%          | 42%            | <b><u>6%</u></b>  |
| Save money                    | 19%               | 20%          | 16%            | 24%               |
| Save time                     | 16%               | 16%          | 16%            | 11%               |
| Parking issues                | 7%                | 7%           | 7%             | 9%                |
| Stress                        | <b><u>3%</u></b>  | 2%           | 5%             | <b><u>10%</u></b> |
| Save wear and tear on vehicle | 3%                | 4%           | 2%             | 4%                |
| Help environment              | 3%                | 4%           | 3%             | 3%                |
| Moved to different residence  | 2%                | 2%           | 3%             | 1%                |
| Changed job/work hours        | 1%                | 1%           | 1%             | <1%               |
| Traffic congestion            | <b><u>1%</u></b>  | <1           | 3%             | <b><u>11%</u></b> |
| Easy / convenient             | <1%               | <1%          | <1%            | 6%                |
| Close                         | <1%               | <1%          | <1%            | 6%                |
| Other                         | <b><u>6%</u></b>  | 5%           | 3%             | <b><u>22%</u></b> |

## Use of and Satisfaction with GRH

- **Used GRH Trip** – all respondents, by registration status and by mode used – **No significant differences in use of GRH.**

|                 | Telephone Survey  |              |                | Internet Survey   |
|-----------------|-------------------|--------------|----------------|-------------------|
|                 | <u>Overall</u>    | <u>Email</u> | <u>NoEmail</u> |                   |
| All respondents | <b><u>23%</u></b> | 22%          | 25%            | <b><u>20%</u></b> |

- **Reasons for Taking a GRH Trip** – Respondents who took a trip – **Significant differences between internet and telephone survey respondents in reasons for taking a GRH trip.**

|                          | Telephone Survey  |              |                | Internet Survey   |
|--------------------------|-------------------|--------------|----------------|-------------------|
|                          | <u>Overall</u>    | <u>Email</u> | <u>NoEmail</u> |                   |
| n=                       | 284               | 211          | 73             | 102               |
| Illness of child         | <b><u>33%</u></b> | 29%          | 42%            | <b><u>11%</u></b> |
| Illness (self)           | <b><u>25%</u></b> | 28%          | 20%            | <b><u>40%</u></b> |
| Illness of family member | 15%               | 13%          | 19%            | 21%               |
| Unscheduled overtime     | 14%               | 14%          | 14%            | 12%               |
| Other personal emergency | 7%                | 8%           | 3%             | 7%                |
| Missed CP/VP/bus/train   | 1%                | <1%          | 1%             | 3%                |
| Other                    | 6%                | 8%           | 1%             | 1%                |

- **Time Waiting for Taxi** – Respondents who took a trip using a taxi – No significant difference in wait time.

|                    | Telephone Survey     |              |                | Internet Survey      |
|--------------------|----------------------|--------------|----------------|----------------------|
|                    | <u>Overall</u>       | <u>Email</u> | <u>NoEmail</u> |                      |
| 5 minutes or less  | 22%                  | 22%          | 22%            | 17%                  |
| 6 – 10 minutes     | 23%                  | 22%          | 25%            | 25%                  |
| 11 – 20 minutes    | 36%                  | 36%          | 40%            | 37%                  |
| 21 – 30 minutes    | 14%                  | 15%          | 11%            | 9%                   |
| 31 or more minutes | 6%                   | 5%           | 5%             | 12%                  |
| Average (minutes)  | <b><u>16 min</u></b> | 17 min       | 17 min         | <b><u>20 min</u></b> |

- **Improvements desired to GRH Program** \* - Internet respondents were more likely than were telephone respondents to ask for “better directions / info on how to use GRH” and “don't require registration.” No other significant differences in improvements desired.

|  | Telephone Survey |       |         | Internet Survey |
|--|------------------|-------|---------|-----------------|
|  | Overall          | Email | NoEmail |                 |
| None needed                                | 25%              | 23%   | 30%     | 24%             |
| More advertising                           | 13%              | 15%   | 7%      | 10%             |
| Allow more trips per year                  | 4%               | 4%    | 3%      | 3%              |
| Quicker response for ride requests         | 3%               | 3%    | <1%     | <1%             |
| Easier/faster approval                     | 2%               | 2%    | 4%      | 1%              |
| Wider area for trips                       | 2%               | 2%    | 1%      | 0%              |
| More flexibility in eligibility/procedures | 1%               | 1%    | <1%     | 3%              |
| Better directions/info on how to use       | 1%               | 1%    | <1%     | 10%             |
| Don't require registration                 | 1%               | <1%   | 4%      | 8%              |
| Notify when time to re-register            | 1%               | <1%   | 3%      | 0%              |
| Improve cab dispatch                       | 0%               | 0%    | 0%      | 4%              |
| Don't know                                 | 47%              | 47%   | 45%     | 17%             |

\* Multiple responses permitted

**COMMUTER CONNECTIONS  
SUBSTANTIAL CHANGES TO STATE OF THE COMMUTE DRAFT REPORT  
October 16, 2007**

Various pages – corrected typos as needed.

Page 4 – Added references to removal of Stafford County from survey and implications for comparisons to 2004 data.

Page 29 – Rewrote introduction to Teleworking section to clarify comparisons of 2007 and 2004 data and adjusted 2001 data.

Page 30 – Table 27 (Current and potential telework) – Added comparison from 2004 SOC.

Page 37 – Figure 6 (Length of time TW)– Added comparison to 2004 in the text for this figure.

Page 38 – Table 31 (Formal vs Informal TW) – Added column for all respondents

Page 47 – Provided additional explanation for Table 43 (Distance to bus stop and train station) and for Table 44 (Bus and train service by home area).

Page 51 – Figure 8 (Awareness of P&R Lots along route to work) – Expanded figure to include awareness percentages by home area – core, inner ring, outer ring. Also expanded text accordingly.

Page 53 – Revised text related to Table 47 to clarify most significant findings for the primary reasons the alternative modes are not used.

Page 55 - Table 49 (Commute change compared to last year) – Added rows in the table to show ease of commute for respondents who moved home, work, and both locations. Added text to explain the additional data shown.

Page 60 – Table 53 – Added several ad sponsors to the table.

Page 61 – Table 54 – Expanded table to show advertising sources cited for two primary ad sponsors, WMATA and Commuter Connections.

Pages 61/62 – Modified text related to Table 55 to clarify most significant findings for persuasive messages.

Page 64 – Replaced Table 57 with Figure 10 (Likely to try using an alternative mode with the next year).

Page 75 – Table 67 (Commuter services offered by employer location) – Corrected data errors.

Page 76 – Figure 11 (Free parking by work area) – Added this new figure and accompanying text.

Page 78 – Table 69 (Current primary commute mode by commuter services/benefits offered) – Corrected data errors in the table.

Page 78 – Provided additional explanation of various factors that could influence mode choice for commuters working in the core area of the region.

**COMMUTER CONNECTIONS  
RESPONSE TO COMMENTS ON STATE OF THE COMMUTE REPORT  
October 4, 2007**

This document summarizes comments received by Commuter Connections on the draft 2007 State of the Commute survey report and Commuter Connections' response to the comments. The comments are organized into the following categories:

- General comments on the format or methods
- Comments on specific Tables / Text

**General Comments on Format or Method**

Comment: The report is essentially a compilation of the results of individual survey questions, with occasional comparisons provided with prior survey results. However the report does not include an overall Summary of its major findings.

Response: These findings are included in Section 4 – Summary and Conclusions.

Comment: The 2007 survey differed from prior surveys in that it did not include Stafford County and it does not appear that the results cited for prior surveys have been adjusted to eliminate Stafford County. As such, the following changes need to be made to the report.

- References to the 12-jurisdiction area should be revised.
- Direct comparisons with prior year surveys should be revised to ensure that such comparisons with prior-year data reflect the absence of Stafford County/

Response: We examined the possible implications of the change in the survey area and concluded that eliminating Stafford County from the survey area did not represent a significant issue for the following reasons. First, although the survey sample for Stafford was equal to that of other survey jurisdictions, when weighted to account for its actual share in the regional worker population, Stafford accounted for only 2.0% of the resident working population. And because some Stafford residents travel to work locations outside the 12-jurisdiction region, the Stafford respondents accounted for only 0.8% of all workers destined for the 12-jurisdiction area. Thus, removing Stafford Co. respondents would be unlikely to effect a change in any regional result unless the results for Stafford County were dramatically different from those of other counties.

To test this possibility, we compared key variables (travel mode, commute distance, telework percentage, etc.) for Stafford with values for the 12-jurisdiction region. In all cases, Stafford results were essentially the regional average.

Comment: It would be helpful in understanding the report if the specific survey questions to which individual tables and related text discussion applied. In some cases the wording of the question is not exactly repeated in the text or table.

Response: For those who wish to check the specific question wording, a copy of the full questionnaire, including both questions and coded responses, is included in the Appendices.

Comment: The characteristics of the sample should be compared with the socio-economic characteristics of the metropolitan area to gauge the extent to which the sample is representative of commuters in the region. (Do 18% of regional commuters earn over \$160,000? Are 22% over the age of 55? Do 32% work for government?)

Response: The populations surveyed for the SOC survey consists of employed residents of the 11-jurisdiction area. Unfortunately, published statistics are not easily available to make direct comparisons for this population. The 2000 Census could be used to compare demographics, but the Census counts only civilian workers in its “worker population,” thus it would exclude military employees, which are part of the SOC sample. Further, these data are now seven year old, so we preferred not to use them. The more recent American Community Survey, conducted in 2005, did not offer the data needed for workers at the level of detail you describe.

Comment: There are several instances in the report where the results for a subset of respondents are presented in additional detail (e.g., distances to bus and/or rail stations reported by those who use bus and/or rail). In many such instances the number of responses reported for the subset is substantially lower than the total number of responses reported for that measure (e.g., 6,055 responses related to transit availability in Tables 40 and 41, but only 5,003-5,013 responses report distance to stations in Tables 42 and 43). In cases where the differences in these numbers are large, as in the example cited above, the results presented in the subset may not be representative of the group as a whole. (If the 1,000 non-respondents generally live beyond 6 miles from transit, the % reported in Tables 42 and 43 will be significantly different). Therefore, additional analysis may be needed to verify that the respondents to such questions are truly representative of the entire population. This situation occurs in several instances.

Response: It is not uncommon for questions that appear to be related in some way to have different sample sizes, if respondents are unable to answer or choose not to answer one of the two questions. Another reason is that follow-up questions might be asked of a subset of the original sample to minimize the number of questions asked of each respondent. So it is difficult to answer this question except on a case by case basis. In the specific case the commenter mentions, the difference between the samples for the two tables reflect respondents who said they did not know the distance to the bus stop. Generally, in survey analysis, respondents who refuse to answer or say they “don’t know” the answer to a question are assumed to be distributed similarly to those who did answer, unless there is a particular reason for believing otherwise. Similarly, if questions are asked of a subset of respondents, the results should be statistically valid, so long as they subset is chosen randomly.

Comment: Several instances occur where the data presented in individual tables is either internally inconsistent (e.g., percentages should add to 100, but do not), or inconsistent with other tables and/or statements in the text.

Response: Data summations were checked and any errors/typos repaired as appropriate.

## Comments on Specific Tables/Text

Comment: Page 11, Figure 1 - The first paragraph indicates that respondents who never commute to a location outside the home constituted about 8% of the total survey and that these respondents were not asked further questions about commute patterns. Figure 1 and other related figures indicate that the number of responses to several questions was 6,168. This number represents 9.5% of the 6,610 completed surveys cited on page 2. This value should be reconciled with the 8% cited in the text.

Response: It is incorrect to use the raw numbers to estimate response percentages unless specifically indicated in the report. The difference between the 8% and 9.5% could be related to weighting. It's also possible in some cases that the number of responses to a question was less than 100% of possible respondents for some other reason.

Comment: Page 6 – The first paragraph indicates that 50% of the respondents had incomes over \$100,000. Table 3 immediately below this statement indicates this percentage is 48%. The text should be clarified to add the word “weighted” in discussing the percentage of respondents in various jurisdictions. In fact there were approximately 600 “respondents” in each jurisdiction. The valued cited on page 6 reflect the weighting of these respondents to account for employed residents, as described elsewhere in the report. The current wording is confusing.

Response: The typo you note was corrected. Regarding the issue of weighting, Section 2 (Survey and Sampling Methodology) describes the weighting/expansion process needed for the raw data to reflect the correct proportions of respondents from each jurisdiction as a share of the total employed population and Appendix 1 presents additional details of this process. Section 3 (Survey Results) indicates that although the number of respondents answering the questions are shown in tables and figures, the percentages are weighted. We do not believe it is necessary to repeat the word “weighted” each time a reference is made to “respondents.”

Comment: Page 6 – As noted above, comparisons with prior year surveys should be revised to delete data from Stafford County from those records.

Response: See changes in the report.

Comment: Table 31 consolidates the “No program” and “Don’t know” responses into a single reporting category. In Tables 32 and 33, no data is presented for the “Don’t Know” category. It is not clear whether the “No Program” response identified in these labels also includes respondents who “Don’t Know.” Ideally, it would be desirable to report these two categories separately. While 68% of non-teleworkers reported “No program / don’t know,” knowledge of the relative percentages of “No Program” and “Don’t Know” would be useful in better understanding the effectiveness of marketing activities.

Response: The respondents who answered “don’t know” to this question were not included in any of the tables, so the third row in Table 31 has been relabeled as “No program.”

Comment: Tables 40, 41, 44 – The utility of this data remains unclear, given (1) the subjective nature of the question (different people have different perceptions about the meaning of “the area in which you live / work”) and (2) the fact that, to be useful in a practical sense, the transit service between the two areas needs to be reasonably direct. Reporting the “availability” of such service independently of each end of the trip – notwithstanding the subjective nature of the responses – conceals its true “practical” availability. The report should stress this facet of the survey question. Table 40 indicates that transit service is “available” to 90% of the households in the region and to 92% of the jobs held by these residents. Is this the conclusion that the reader is intended to draw from this table?



Response: The commenter raises two issues. First, with regard to use of the term “available,” the text has been changed to reflect the particular wording in the question, “what train or bus companies provide service.” Second, the commenter raises the issue of what is realistically “available.” This is a reasonable question, but we did not collect data to examine this further. Note, however, the text changes on page 46 highlighting this point.

Comment: Tables 42, 43 – The data in these two tables would be more useful if it were re-formatted to show how distance from a bus stop or train station affects the perception of commuters about the availability of these services. This format would provide a much better indication of the distances that commuters consider acceptable than the averages that are presented in the Tables.

Response: We request that the commenter elaborate on this request – it is not clear what specific analysis is desired.

Comment: Table 45 – The report should note that the results of the HOV “availability” question (Is there a special HOV lane... along your route to work?) should not be compared with the results of the transit availability question (Is service provided in the area in which you live?) for the reasons noted above.

Response: No similar explanation was provided because “along your route to work” implies along the actual route a respondent would take.

Comment: Table 45 – This table should be expanded to include the number of “Refused / Don’t know” response to question 46.

Response: This table shows the percentages in each jurisdiction that reported that HOV lanes were available. The remaining percentage in each jurisdiction thus would have answered “no” or “don’t know/refused.” Only two percent of respondents indicated “don’t know” to this question. Differences in “not available” and “don’t know if available” did not vary substantially from one county to another. Given this small percentage of “don’t know” and similarity across jurisdictions, we did not feel it necessary to break this out from the unstated “unavailable” component that is the difference between 100% and the “available” percentage.

Comment: Figure 8 – The information presented in this Figure would be more useful if it were stratified by geographic location with respect to the regional core (Core / Inner Ring / Outer Ring).

Response: See changes in the Figure and text.

Comment: Table 47 – It is not clear if the percentages reported for Service Characteristics in this table reflect the absence of service reported for the bus and train modes. For example, since 30% of respondents reported that train service was not available (or did not know), these respondents should not be considered in tabulating other reasons for not using the mode (if service is not available, then “taking too much time” or “too expensive” cannot be cited as reasons).

Response: Yes, respondents who reported that no service was available were permitted to answer other responses. About 16% of respondents who said no train service operated and about 24% of respondents who said no bus service operated also reported another response. We prefer not to make the suggested change, because the current presentation is a more accurate portrayal of perceived barriers to bus and train use.

Comment: Page 53 – The text that analyzes the data in Table 47 should be revised to more clearly emphasize the primary reasons the alternative modes are not used. For example, it cites irregular work schedules as a “significant barrier to carpooling” when in fact this reason was cited by 18% of respondents. Similarly “trip is too long / too far” was cited by 10% and 6% as reasons for not using buses or trains. These are not large percentages and the discussion of this subject in the text places undue emphasis on these reasons.

Response: See changes in the report.

Comment: Table 48 – The percentages cited in Table 48 sum to over 100% for both the “easier commute” and “more difficult commute” categories. Therefore, it appears that multiple responses were permitted. This should be noted. In addition, since some of these changes resulted from moving either home or office (or both), the data in the table cannot be reliably used to gauge the true difference in individual commutes. If all the commuters whose commute was a longer distance (12%) also used more congested routes, the true percentages of commuters whose actual route was “more congested” would be 63%, not 75%. The data in the table should be recalculated to eliminate these obvious double-counting possibilities.

Response: Yes, multiple responses were permitted – so noted in the report. But it is possible a commuter could experience both a longer and more congested trip, thus it would not be accurate to report just one of the reasons cited by respondents.

Comment: Table 49 compresses all possible positive responses to Question 60 (Did you change home or work location or both?) into one value. It would be helpful to know the discrete components of this sum. Related to the above, the report should indicate how the commute change changed (e.g., easier, more difficult, etc) for each category of move (home, work, both)

Response: See changes made to the report. The differences between responses for these three “moving change” groups are small and with one exception are within the statistical margin of error. The only statistically significant difference was for the percentage of “about the same” for respondents who said they made only a home location change (41%) and the percentage who made only a work location change (28%).

Comment: Table 53, 54 – These tables report the responses to advertising sponsors and media separately. It would be helpful if they were cross-tabulated to indicate how respondents recalled sponsors, by media type (what sponsor did respondents recall through radio? Thru television? Etc.

Response: Only two ad sponsors in Table 53 (WMATA and COC/Commuter Connections) would have sufficient sample to show a “where heard” breakdown. The distribution of media named for these sponsors have been added to Table 54.

Comment: Table 55 – The number of respondents who recalled the substance of the ad message and the percentage of total respondents should be provided.

Response: The number of respondents who named each ad message is shown in the “n=\_\_\_” column of the table. The percentages that these respondents represented were shown in Table 52.

Comment: Page 62 – The 2<sup>nd</sup> paragraph provides stratified information about the types of commuters who were most likely to use an alternative mode after hearing the ads. The survey data supporting this discussion is not presented in a table.

Response: That is correct. No table is shown or needed. It would be a one-row table - there would not be any additional rows to present.

Comment: Page 65 – The text on page 65 indicates that some of the results presented in Table 58 represent percentages of regional population. No other tables in the report present the survey findings in this format. In addition, other percentages in the same table appear to represent the results of the survey. This table should be revised to eliminate the inconsistency in the meaning of the percentages.

Response: The word “regional” has been removed.

Comment: Figure 1 - The percentages of commuters who drove alone as reported in the 2004 SOC survey was 72.4%, not 72.6%

Response: Correct, we changed the 2004 number in the 2007 report.

Comment: Table 43 – The labels for the rows are confusing. Row 2 provides information for Bus only – no train service operates. However, the second column shows the mean distance to train stations as 10.1 miles. How can this be the case if “no train service operates?” This situation is repeated for other rows in the table as well. Are the labels intended to refer to respondents who don’t know the name of the bus or train service? It would be helpful if the calculation of the means were presented in an appendix to the document.

Response: As noted before, the transit access distance was asked of all respondents, including those who said no bus and/or train companies provided service in their home area. Some respondents who said no service operated still provided a distance – clearly they assumed this distance was outside the area they would consider their home area. We added additional details in the report to explain this.

Comment: Figure 8 – The percentages reported for the three categories (“know location” / “Don’t know location” / “No P&R lot”) do not add to 100.

Response: The typo you report has been corrected.

Comment: Table 58 – The table should be revised to ensure that it reflects the text explanation of page 64 (40% can name a specific source; 14% named WMATA, etc.) In addition to inconsistencies with other tables in the report, Table 58 does not correspond with the values presented in the text (e.g., the WMAA percentage in the table appears to be slightly more than 10%, not 14% as stated in the text.)

Response: The typo you report has been corrected.

Comment: Table 58 indicates that about 2.3% of regional commuters recall a COG phone number or website; the text on page 64 repeats this value but the text on page 65 reports this value as 4%. This discrepancy should be corrected.

Response: The typo you report has been corrected.

Comment: Page 68 – The last paragraph describes the data in Table 62 as “the percentage of all respondents who were asked about their knowledge of the programs.” This suggests that some respondents were NOT asked about their knowledge of the programs. The report should quantify the number of respondents in this category and explain why some respondents were not asked for this information.

Response: Respondents were asked only about their awareness of programs in their home or work jurisdictions. This was noted in this section, however, we have provided additional explanation.

Comment: Tables 66-68 - The total number of responses for the various categories of employers depicted in these tables is not consistent with the number reported in Table 68 (5991) being over 200 greater than tables 66 and 67 (approx. 5776). It would seem that these numbers should match, although it is conceivable that some respondents did not provide the information needed for Tables 66 and 67. These tabulations should be verified to ensure accuracy and any additional corrections should be made to the percentages reported in individual cells.

Response: These tables show data developed the use of two questions (cross-tabulation). In order to be included as a valid response in such as table, the respondent would have to have answered both questions. The number of respondents who provided information on their work location (used in Table 68) was greater than the number who provided data on their employer's type and size. Thus Tables 66 and 67 will have smaller overall sample sizes.

Comment: Tables 66-68 - The calculation supporting all of the percentages reported in these tables should be reviewed, since some data does not appear to be consistent. For example, Table 68 reports the percentages of employers offering "Commute Information" services to be in the range of 32-38% throughout the region. However, Table 67 reports this percentage as being below 30% for all sizes of employers except those with more than 1000 employees.

Response: The commenter is correct. The percentages in Table 68 for commute services were incorrect. They have been corrected. The values in Tables 66 and 67 were correct.

Comment: Table 68 – The percentages of commuters with different types of parking at the employment site (free, partial, or full payment, none, or don't know) should add to 100; the final two columns do not sum to 100%.

Response: The commenter is correct. The percentages in Table 68 for the inner and outer rings were incorrect. They have been corrected.

Comment: Table 70 - It appears that the data reported for free, on-site parking may also include free, off-site parking. If so, the row should be renamed.

Response: The label has been corrected.

Comment: Page 76 – The 4<sup>th</sup> paragraph indicates that employees working in the core are likely to have a longer commute distance than commuters to other destination. No data is provided in the report to substantiate this statement.

Response: Commuters who work in the core area travel an average of 39 minutes, compared to 33 minutes for commuters in the inner ring, and 30 minutes for commuters in the outer ring. See the report changes.

Comment: The consultant has stated that additional summaries (e.g., by ring, by corridor, etc.) that were previously requested are being prepared. In addition to those summaries, the following stratification of data would be useful in understanding the survey results.

- Figure 3 – Current Primary Mode – Compile by Ring, Corridor
- Table 45 – Awareness and Use of HOV Lanes – Compile by Corridor
- Figure 8 – Awareness of Park & Ride Lots – Compile by Ring, Corridor

- Figure 9 – Commute Easier / More Difficult than Last Year – Compile by Ring, Corridor
- Table 52 – Recall and Influence of Advertising Messages – Compile by Sate, Ring

Response: Additional analyses were performed regarding rings, but it is not feasible to perform corridor analyses for this report, because the survey did not ask respondents which roads they use to travel to work. The survey does include home and work zip codes, so when COG staff release the data to jurisdictions, planned to occur in early 2008, local jurisdictions would be free to do additional origin-destination analyses for their areas of interest and infer commute routes using these data.

With respect to the specific items listed above, the report includes several of the requested distributions, including awareness of P&R lots and awareness and use of HOV lanes, which is shown in a more disaggregated form, namely individual jurisdictions. Analysis of ease of commute by area was not performed because commutes often cross jurisdiction boundaries, thus could be in more than one area. We do not recommend analyzing recall and influence of advertising message further, due to relatively low sample sizes for individual messages recalled.

Comment: Instances where significant differences exist between number of responses

- Table 40, 41, 44 – Transit service companies vs Table 42, 43 – Distance to bus/train
- Table 21 – Means to alternative meeting points vs Table 22 – Distance to alternative meeting points
- Table 19 – Time using alternative modes vs Table 25 – Reasons for using alternative modes
- Table 52 – Recall of advertising messages vs Table 56 – Actions taken to change commute after advertising
- Table 15 – Commute distance (all) vs Table 17 – Commute distance by mode

Response: As noted earlier, sample sizes might be different for related questions for many reasons. The tables listed above have been checked.

- Transit service companies vs transit access distance – This was addressed earlier in this document.
- Means to alternative meeting points – Respondents who reported that they were picked up at home or that they were the carpool/vanpool driver were not asked the access distance question. Additionally, some respondents who are included in Table 21 were unable to provide a distance measurement for Table 22. They would not be shown in the base of respondents.
- Time using alt modes vs reasons – This was addressed earlier in this document.
- Recall of ad messages vs actions taken – The question about actions taken was asked only of respondents who could recall and name a particular ad message and who said that they were more likely to consider ridesharing or using transit after hearing or seeing the ad. This was approximately 12% of the respondents who were asked the question about ad awareness/message recall.
- Commute distance – The sample size reported for Table 15 included respondents who reported that they did not know the distance. This has been corrected to remove them from the base. The table now shows the corrected sample size. Table 17 is correct.

**COMMUTER CONNECTIONS  
STATE OF THE COMMUTE SURVEY  
2007**

**Survey Report**

Draft

**Prepared for:**

**Metropolitan Washington Council of Governments**

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**In conjunction with:**

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**Revised  
October 16, 2007**

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## SECTION 1 – INTRODUCTION

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

COG has a strong interest in evaluating the effectiveness of its commuter services programs. In 1997 Commuter Connections established an evaluation framework that outlined a methodology and data collection activities to evaluate several of its commuter programs. This framework was updated and revised three times, in 2001, 2004, and 2007, to include several enhancements.<sup>2</sup> 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 Commuter Connections' Telework Assistance, InfoExpress Kiosk, and Mass Marketing, three TERMS that might influence the population-at-large as well as commuters who directly participate in Commuter Connections' programs. 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 SOC Results – 2007, 2004, and 2001.

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<sup>1</sup> Commuter Connections is administered through the National Capital Region Transportation Planning Board at COG and funded through the District Department of Transportation, the Maryland Department of Transportation, and the Virginia Department of Transportation, with state and federal funds.

<sup>2</sup> 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 – 2005 – June 2008*, available from COG.

## SECTION 2 – SURVEY AND SAMPLING METHODOLOGY

### Overview

The geographic scope of COG's responsibility encompasses the 11 counties that make up the Washington metropolitan federally-designated non-attainment region. All households within this geographic area that had at least one employed person residing in the household were eligible for selection in the 2007 study. A minimum of 600 random telephone surveys were conducted in each of the 11 jurisdictions of the study area, resulting in 6,610 completed surveys.

Note that the 11-jurisdiction survey area is different from that used in the 2001 and 2004 SOC surveys; these earlier surveys surveyed residents of 12 jurisdictions, including Stafford County, VA. Stafford County was removed from the survey area in 2007 because Stafford County was no longer in the COG federally-designated non-attainment area.

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. In past State of the Commute studies, there tended to be a very high number of records with numbers that were not in service. As a result, CIC moved from the GENESYS ID+ screening process, a process that dials only numbers which are not in the software suppliers' database of listed households and known businesses, to the GENESYS CSS process, which dials all numbers sent to the software supplier. This resulted in an increase in the cost per record, but allowed for a more efficient sample. A detailed list of dialing results can be found in Appendix B.

### Questionnaire Design

The 2007 SOC questionnaire was based on the questionnaire used in 2004, 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, Integrated Rideshare (Kiosk component), and the Mass Marketing TERM.

New questions also were added to test various new programs Commuter Connections is considering implementing. Wherever possible, an attempt was made to replicate questions used in the 2004 SOC Survey to allow trend analysis, but changes were made when the revisions were expected to add substantially to the accuracy of the data. As a result, the overall length of conducting this survey increased significantly.

Before the full survey was conducted, CIC completed a pretest of the questionnaire. Using the responses to these surveys, the questionnaire was finalized with COG Project staff and translated into Spanish. The survey instrument was designed for telephone administration using Computer Assisted Telephone Interviewing (CATI). A copy of the English questionnaire is included in Appendix C. The Spanish questionnaire is available upon request.

## Survey Administration

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

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

Interviews were conducted between January 31 and April 28, 2007. 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 five callback attempts over different days throughout the data collection period. CIC adopted measures to assure confidentiality of responses. Bilingual interviewers surveyed all Spanish-speaking respondents using the Spanish questionnaire. A total of 221 surveys (3.5%) 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, and reviewing completed surveys. To insure quality control, the survey supervisor conducted periodic random monitoring. Other quality assurance logical checks were done once survey data was collected.

A minimum of 600 interviews were completed in each of the 11 counties, resulting in a total sample size of 6,610 completed surveys. The refusal rate for the survey was 14.8 percent<sup>3</sup>. An average of 62.2 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 11-area, Washington, DC metropolitan region is detailed in Appendix A. Data from the Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics (LAUS) were utilized to provide an expansion of survey interviews to estimate 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 Alexandria City, VA, Arlington County, VA, Frederick County, MD, and the District of Columbia, .

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<sup>3</sup> 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 11 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 2004 and 2001 SOC Surveys, where the comparison is notable. A comparison of key results from the three SOC surveys also is presented in Appendix E.

As noted in the Introduction, the 2007 survey surveyed residents of 11-jurisdictions, while the 2001 and 2004 surveys surveyed residents of 12 jurisdictions, including Stafford County, VA, which was removed from the survey sample in 2007, because Stafford County was no longer part of the federally-designated COG non-attainment area.

COG examined the possible implications of the change in the survey area and concluded that eliminating Stafford County from the survey area did not represent a significant issue for comparison of 2007 results to results of the earlier surveys the following reasons. First, the survey sample for Stafford, when weighted to account for its actual share in the regional worker population, accounted for only 2.0% of the resident working population. And because some Stafford residents travel to work locations outside the 12-jurisdiction region, the Stafford respondents accounted for only 0.8% of all workers destined for the 12-jurisdiction area. Thus, removing Stafford Co. respondents would be unlikely to effect a change in any regional result unless the results for Stafford County were dramatically different from those of other counties.

To test this possibility, COG compared key variables (e.g., travel mode, commute distance, telework percentage, etc.) for Stafford with values for the 12-jurisdiction region. In all cases, Stafford results were essentially the regional average. Thus, removing Stafford would not have changed the overall regional results.

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 Teleworking
- 3-D Availability of and attitudes toward transportation options
- 3-E Awareness of commute advertising and services
- 3-F Awareness of use of commuter assistance resources
- 3-G Employer-provided commuter assistance services
- 3-H Guaranteed Ride Home
- 3-I New regional commute program concepts
- 3-J 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 (54%). This was essentially the same percentage as in the 2004 and 2001 SOC surveys.

*Age* – As shown in Table 1, about three-quarters of respondents (74%) were between the ages of 25 and 54. About four percent were under 25 and about 22% were 55 years or older.

Table 1  
Respondent Age  
(n=6,359)

| Age Group | Percentage | Age Group | Percentage |
|-----------|------------|-----------|------------|
| Under 24  | 4%         | 45 – 54   | 30%        |
| 25 – 34   | 16%        | 55 – 64   | 18%        |
| 35 – 44   | 28%        | Over 64   | 4%         |

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

Table 2  
Ethnic Background  
(n=6,183)

| Ethnic Group     | Percentage | Ethnic Group | Percentage |
|------------------|------------|--------------|------------|
| White/Caucasian  | 62%        | Asian        | 4%         |
| African-American | 22%        | Other/Mixed  | 3%         |
| Hispanic/Latino  | 9%         |              |            |



*Income* – Table 3 shows that more than three-quarters (77%) of respondents had household incomes of \$60,000 or more. Almost half (48%) had incomes of \$100,000 or more.

**Table 3**  
**Annual Household Income**  
(n=5,258)

| <b>Income</b>      | <b>Percentage</b> | <b>Income</b>       | <b>Percentage</b> |
|--------------------|-------------------|---------------------|-------------------|
| Less than \$20,000 | 2%                | \$80,000 – 99,999   | 15%               |
| \$20,000 – 29,999  | 4%                | \$100,000 – 119,999 | 14%               |
| \$30,000 – 39,999  | 5%                | \$120,000 – 139,000 | 9%                |
| \$40,000 – 59,999  | 12%               | \$140,000 – 159,000 | 7%                |
| \$60,000 – 79,999  | 14%               | \$160,000 or more   | 18%               |

*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 (46%) and Virginia (43%). The remaining 12% of respondents lived in the District of Columbia. Because the survey only interviewed residents of the 11-jurisdiction, federally-designated non-attainment area, no respondents lived outside these areas.

Work locations were more evenly divided. The largest number of respondents worked in Virginia (36%), but the District of Columbia and Maryland, with 31% and 30% of respondents respectively, were close behind in employment numbers.

Four jurisdictions accounted for residences of seven in ten respondents: Fairfax County (including Fairfax City and Falls Church) (22%), Montgomery County, MD (19%), Prince George’s County, MD (17%), and the District of Columbia (12%). The same four jurisdictions also represented about three-quarters of the work locations, but in different proportions: District of Columbia (31%), Fairfax County (19%), Montgomery County (16%), and Prince George’s County (9%).

Table 4  
Home and Work Locations

| <b>State/County</b>         | <b>Home Location*</b><br>(n=6,610) | <b>Work Location**</b><br>(n=6,610) |
|-----------------------------|------------------------------------|-------------------------------------|
| <b>District of Columbia</b> | <b>12%</b>                         | <b>31%</b>                          |
| <b>Maryland Counties</b>    | <b>46%</b>                         | <b>30%</b>                          |
| Montgomery Co.              | 19%                                | 16%                                 |
| Prince Georges Co.          | 17%                                | 9%                                  |
| Frederick Co.               | 5%                                 | 3%                                  |
| Charles Co.                 | 3%                                 | 1%                                  |
| Calvert Co.                 | 2%                                 | 1%                                  |
| <b>Virginia Counties</b>    | <b>43%</b>                         | <b>36%</b>                          |
| Fairfax Co.                 | 22%                                | 19%                                 |
| Prince William Co.          | 7%                                 | 3%                                  |
| Arlington Co.               | 5%                                 | 6%                                  |
| Loudoun Co.                 | 6%                                 | 4%                                  |
| Alexandria City             | 3%                                 | 4%                                  |
| <b>Other***</b>             | <b>N/A</b>                         | <b>3%</b>                           |

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

\*\* Work location percentages for Maryland and Virginia include only counties located in the COG 11-jurisdiction non-attainment 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, 20%, and state and local agencies, 12%. About one in ten (11%) worked for a non-profit organization and the remaining 10% were self-employed.

Table 5  
Employer Type  
 (n=6,436)

| Employer Type      | Percentage |
|--------------------|------------|
| Private sector     | 47%        |
| Federal agency     | 20%        |
| State/local agency | 12%        |
| Non-profit         | 11%        |
| Self-employed      | 10%        |

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 (24%) worked for employers that employ 1,000 or more employees. This was the same distribution as was observed in the 2004 SOC.

Table 6  
Employer Size  
 (n=5,766)

| Number of Employees | Percentage |
|---------------------|------------|
| 1-25                | 26%        |
| 26-50               | 10%        |
| 51-100              | 12%        |
| 101-250             | 13%        |
| 251-999             | 15%        |
| 1,000+              | 24%        |

*Occupations* – Respondents represented many occupations, as shown in Table 7. About six in ten respondents worked in professional (41%) or executive/managerial occupations (18%). Other common occupations included administrative support (9%), service (7%), sales (6%), and technicians/technical support (5%).

Table 7  
Occupation  
(n=6,266)

| <b>Occupation</b>           | <b>Percentage</b> |
|-----------------------------|-------------------|
| Professional                | 41%               |
| Executive/managerial        | 18%               |
| Administrative support      | 9%                |
| Service                     | 7%                |
| Sales                       | 6%                |
| Technicians/support         | 5%                |
| Precision craft, production | 4%                |
| Transportation              | 2%                |
| Protective services         | 2%                |
| Equipment handlers/cleaners | 2%                |
| Military                    | 1%                |
| Other*                      | 3%                |

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

### 3-B COMMUTE PATTERNS

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

- Number of days worked per week 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 nine in ten (89%) respondents worked full-time, defined as 35 or more hours per week. The remaining 11% were employed part-time.

*Commute Times* – As shown in Table 8, two-thirds (66%) 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 91% 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=5,908)

| Arrival Time       | Percentage |
|--------------------|------------|
| 5 am to 5:59 am    | 4%         |
| 6 am to 6:59 am    | 11%        |
| 7 am – 7:59 am     | 24%        |
| 8 am – 8:59 am     | 31%        |
| 9 am – 9:59 am     | 21%        |
| 10 am to 5:59 pm   | 8%         |
| 6 pm to midnight   | 1%         |
| 12:01 am – 4:59 am | 1%         |

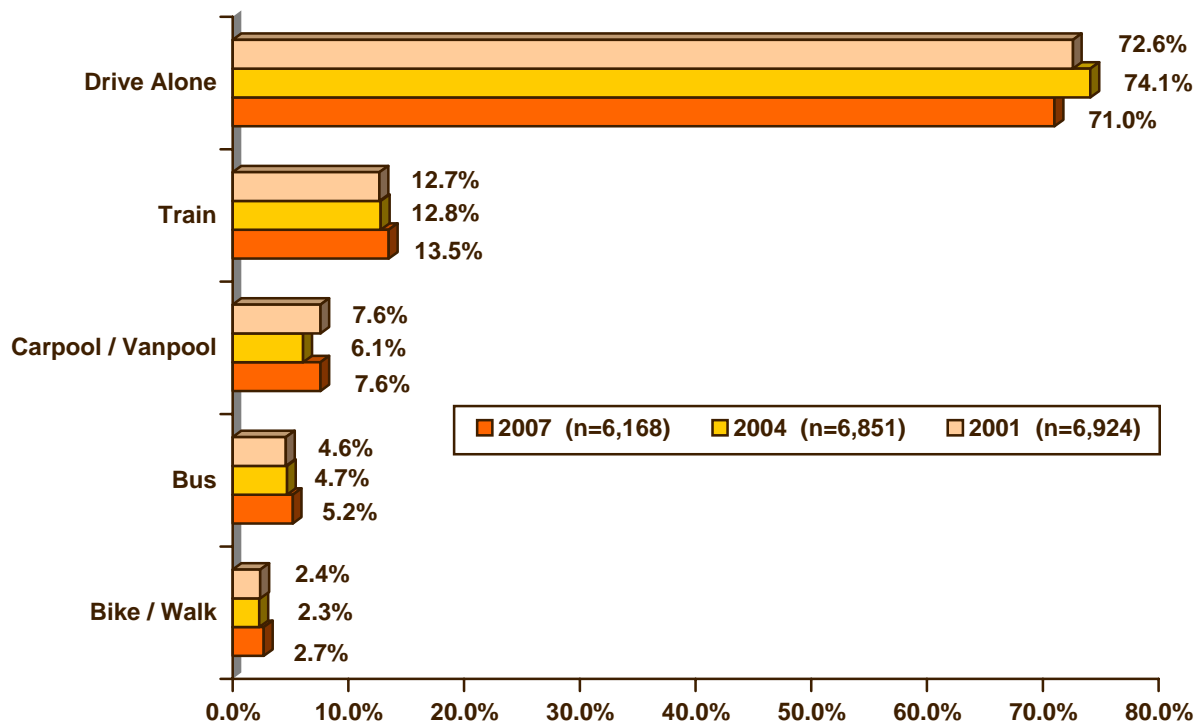
*Work at Home* – About eight percent of the total survey respondents said they never commuted to a work location outside their homes. The majority of these respondents (6% of total respondents) said they were self-employed and had no other work location. The remaining two percent of respondents said they teleworked from home every day they worked. These 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 teleworked five days per week were asked questions about their telework experience.

**Current Commute Mode**

Respondents were asked what modes they used to travel to work each weekday (Monday-Friday) during the survey week. If they were sick, on holiday or vacation, or otherwise absent from work one or more days during the week, 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 2007, 2004, and 2001* – Figure 1 presents mode shares as a percentage of weekly commute trips made to job locations outside the home in 2007, 2004, and 2001. This represents 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.

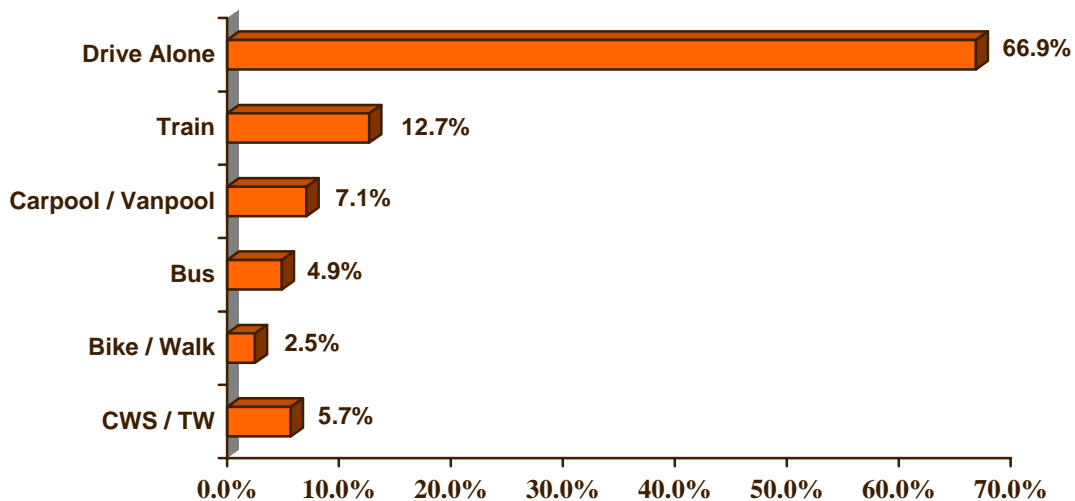
**Figure 1**  
**Weekly Trips by Mode – 2007, 2004, and 2001**  
 (Excluding CWS and Telework)



The comparison shows that the percentage of drive alone trips dropped slightly from 2004 to 2007 and the share of alternative modes increased. The percentage of commute trips made by driving alone fell from 74.1% in 2004 to 71.0% in 2007. Train use increased slightly from 12.8% of weekly trips in 2004 to 13.5% in 2007 and carpool/vanpool trips showed a small increase from 6.1% in 2004 to 7.6% in 2007. Bus trips also grew, again by a small amount, from 4.7% to 5.2% of weekly trips.

*Weekly Trips by Mode in 2007* – Figure 2 also presents mode shares as a percentage of weekly commute trips, but includes one additional category to the mode groups displayed in Figure 1 – teleworking 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 - 2007**  
Percentage of Weekly Trips  
(n= 6,168)



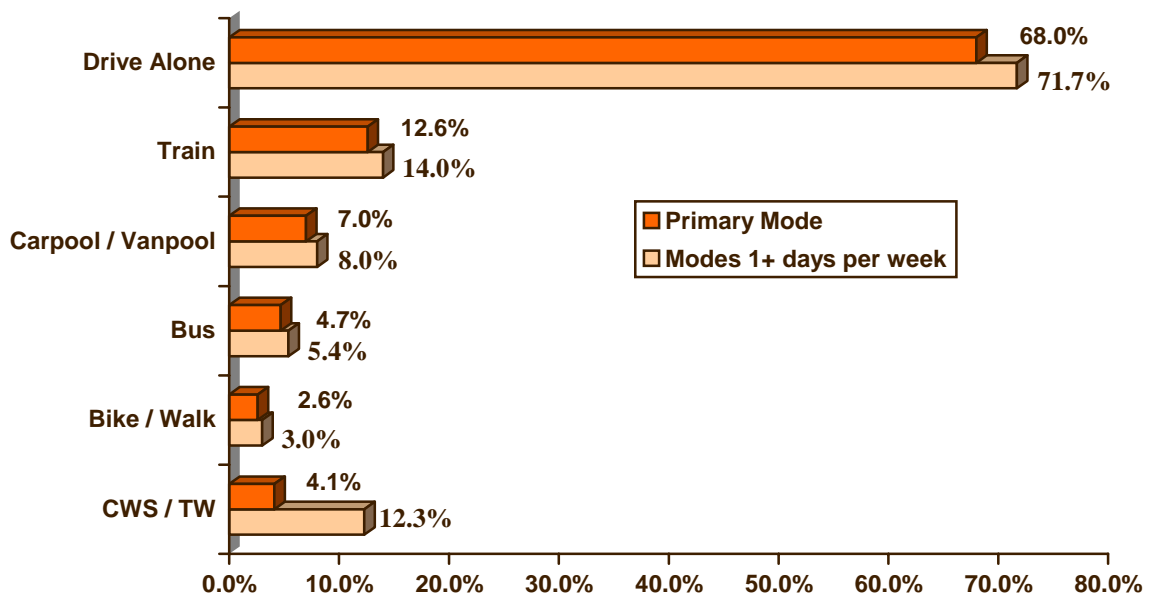
As shown, when compressed work schedule days off and telework days are included in the mode distribution, the share of drive alone trips drops to 66.9% of weekly “trips.” Trip percentages for other modes also drop, because CWS and teleworking draw trips away from all modes, not just drive alone. But the second most popular mode continues to be train, used for 12.7% of weekly trips. Respondents used carpool/vanpool for 7.1% of weekly commute trips and bus for about five percent (4.9%). A small percentage (2.5%) of weekly trips were made by bike or walking.

Compressed work schedule days off and teleworking accounted for nearly six percent (5.7%) of weekly work “trips.” As noted earlier, these “trips” actually were not made, but they were officially assigned as part of the work week, so were included in this distribution.

**Frequency of Current Mode Use** – Figure 3 shows mode split for 2007 as the percentage of respondents who used these modes. First the figure presents the percentages of respondents who used each mode as their “primary” mode, defined as the mode used most days per week. The figure also shows the percentages of respondents who used each mode one or more days per week, that is, at least occasionally.

**Primary Mode** – Nearly all (99%) respondents said they used a single mode most days per week. Since most respondents worked five or more days, primary mode generally equated to use three or more days per week. But for a small percentage of respondents who worked fewer than five days or who used more than two modes, the primary mode could be used just two days per week.

Figure 3  
Current Primary Commute Modes and Modes Used 1+ Days per Week  
 (n= 6,168)



\* Percentages for Modes used 1+ add to more than 100% because some respondents used more than one mode in a week

As with mode split by weekly trips, the most common primary mode was drive alone, used by 68.0% of respondents. The second most common mode, used by 12.6% of respondents, was train. Seven percent (7.0%) said they carpooled, “casual” carpooled (slug), or vanpooled. Bus was the primary mode of about five percent of respondents (4.7%). Just under three percent (2.6%) of respondents said they primarily biked or walked and four percent (4.1%) said they primarily teleworked. Note that no respondents used compressed work schedule as a primary mode so all the respondents in the CWS/TW primary mode group were teleworkers.



Primary or Occasional Use of Modes – Figure 3 also 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.

The relative use of modes did not change from the primary mode order. But in each case, the percentage using each mode increased, because some respondents counted in the primary mode category occasionally also used a “secondary mode.” Drive alone was still the most popular mode; 71.7% of respondents used this mode either regularly or occasionally. When compared to the 68.0% of respondents who said they primarily drove alone, this shows that about four percent of respondents were occasional users of this mode.

Train was the second most popular mode, used by 14.0% of respondents. Carpooling/vanpooling was the third most popular mode, used by about eight percent (8.0%) of respondents one or more days per week. About one in twenty (5.4%) respondents rode a bus and 3.0% biked or walked. The major difference between the primary mode and 1+ mode distribution is in the percentage of respondents who teleworked one or more days or had one or more compressed work schedule days off during the survey week. As shown in the figure, 12.3% of respondents said they used one of these alternative work arrangements at least one day a week. This is compared to only four percent who used these arrangements as their primary mode.

*Mode Use within Mode Groups* – Table 9 shows use of individual modes within the six mode groups displayed in Figure 3.

Carpool/Vanpool – Among respondents who carpooled or vanpooled, regular carpooling dominated. More than 90% of regional carpool/vanpool use was in regular carpools (7.2% of total 8.0% carpool/vanpool use). Small proportions of regional carpools/vanpools used 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 2% of bus ridership was in buspools (0.1% of total 5.4% 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, with 94% of train riders using this mode (13.2% of total 14.0% train ridership). The balance of train ridership was in commuter rail, with commuter rail divided approximately evenly among the MARC and VRE.

Bike/Walk – Walking accounted for the majority of the bike/walk mode group. Among all users, walking attracted three-quarters of the respondents (2.3% of 3.0% of bike/walk use).

CWS/TW – Finally, about one in eight respondents (12.3%) said they either teleworked one or more days or had one or more compressed work schedule days off during the survey week. Teleworking dominated this category, accounting for three-quarters of this group (9.5% of 12.3% total CWS/TW mode group).

Table 9  
Individual Commute Modes Used 1+ Days per Week  
 (n=6,168)

| Mode Group / Modes         | Percentage   | Mean Days |
|----------------------------|--------------|-----------|
| <b>Drive alone</b>         | <b>71.7%</b> | 4.4       |
| <b>Carpool/Vanpool</b>     | <b>8.0%</b>  |           |
| - Regular carpool          | 7.2%         | 4.2       |
| - Casual carpool (slug)    | 0.6%         | 4.1       |
| - Vanpool                  | 0.2%         | 4.4       |
| <b>Bus</b>                 | <b>5.4%</b>  |           |
| - Ride a bus/shuttle       | 5.3%         | 4.4       |
| - Buspool                  | 0.1%         | 2.9       |
| <b>Train</b>               | <b>14.0%</b> |           |
| - Metrorail                | 13.2%        | 4.3       |
| - MARC (MD commuter rail)  | 0.4%         | 3.7       |
| - VRE                      | 0.4%         | 4.5       |
| - AMTRAK/other train       | <0.1%        | 4.3       |
| <b>Bike/Walk</b>           | <b>3.0%</b>  |           |
| - Bike                     | 0.7%         | 3.2       |
| - Walk                     | 2.3%         | 4.2       |
| <b>CWS/TC</b>              | <b>12.3%</b> |           |
| - Compressed work schedule | 2.8%         | 1.1       |
| - Telework                 | 9.5%         | 2.6       |

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

*Mean Days Used* – Table 9 also shows 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 used 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 2.6 days during the survey week and respondents who worked compressed schedules had an average of 1.1 days off per week. It should be noted that the average days per week for these two modes include only respondents who actually teleworked or had a CWS day off dur-

ing the survey week. Many more respondents said they telework 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 most days per week) among various demographic groups. Tables 10 through 14 present distributions of primary mode by respondent sex, ethnic group, income, states of residence and employment, and vehicle availability categories, respectively.

**Sex** – As shown in Table 10, women were slightly less likely to drive alone to work than were men. They were approximately equally likely to use a train and to walk or bicycle but were considerably more likely to ride a bus (5.6% for women vs 3.8% for men).

Table 10  
Current Primary Mode by Sex

| Sex    | (n=___) | Primary Commute Mode |       |      |       |      |
|--------|---------|----------------------|-------|------|-------|------|
|        |         | DA                   | CP/VP | Bus  | Train | B/W  |
| Female | 3,258   | 67.9%                | 6.7%  | 5.6% | 12.7% | 2.6% |
| Male   | 2,856   | 69.4%                | 7.6%  | 3.8% | 12.9% | 2.6% |

**Ethnic Group** – Table 11 shows primary mode for the three largest ethnic groups. Whites 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 used the bus, nearly twice as likely as any other ethnic groups. African-American were statistically more likely to use the train than were either White or Hispanic respondents.

Table 11  
Current Primary Mode by Ethnic Group

| Ethnic Group     | (n=___) | Primary Commute Mode |       |       |       |      |
|------------------|---------|----------------------|-------|-------|-------|------|
|                  |         | DA                   | CP/VP | Bus   | Train | B/W  |
| Hispanic         | 467     | 52.5%                | 16.5% | 13.8% | 11.5% | 2.7% |
| African-American | 963     | 63.7%                | 6.2%  | 7.7%  | 18.3% | 2.1% |
| White            | 3,966   | 72.9%                | 5.8%  | 2.0%  | 11.0% | 2.9% |
| Other            | 323     | 69.5%                | 8.0%  | 3.1%  | 12.9% | 4.0% |

Income – Table 12 presents primary mode by annual household income. Solo driving was most common among moderate- and high-income respondents (\$60,000 or higher), but declined at the highest income categories, in favor of carpool/vanpool and train ridership. 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 12  
Current Primary Mode by Annual Household Income

| Income              | (n=___) | Primary Commute Mode |       |       |       |      |
|---------------------|---------|----------------------|-------|-------|-------|------|
|                     |         | DA                   | CP/VP | Bus   | Train | B/W  |
| Less than \$30,000  | 255     | 45.7%                | 12.8% | 16.4% | 16.4% | 6.0% |
| \$30,000 – 59,999   | 806     | 69.9%                | 8.5%  | 6.6%  | 10.6% | 3.1% |
| \$60,000 – 79,999   | 682     | 74.3%                | 5.8%  | 4.6%  | 11.7% | 2.0% |
| \$80,000 – 99,999   | 761     | 71.3%                | 4.6%  | 2.3%  | 15.5% | 3.1% |
| \$100,000 – 119,999 | 729     | 68.1%                | 6.3%  | 3.1%  | 13.3% | 2.4% |
| \$120,000 – 139,999 | 472     | 68.3%                | 6.5%  | 3.1%  | 11.7% | 3.7% |
| \$140,000 +         | 1,188   | 69.2%                | 7.7%  | 1.6%  | 12.8% | 1.9% |

State of Residence – As illustrated in Table 13, respondents’ commute modes differed by where they lived. About seven in ten respondents in Virginia and a slightly higher percentage of respondents in 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 than were either residents of Maryland or 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 slightly more than did Virginia residents, but mode shares for bus and bike/walk were statistically the same for these residents.

State of Employment – Table 13 also displays mode by state of employment. Respondents who worked in the District of Columbia were substantially less likely to drive alone to work than were those who worked in Virginia or Maryland. District workers were 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 six times more likely than other respondents to use the train as their primary mode.

**Table 13**  
**Current Primary Mode by State of Residence and State of Employment**

| State                      | (n=__) | Primary Commute Mode |       |       |       |      |
|----------------------------|--------|----------------------|-------|-------|-------|------|
|                            |        | DA                   | CP/VP | Bus   | Train | B/W  |
| <b>State of Residence</b>  |        |                      |       |       |       |      |
| District of Columbia       | 538    | 46.5%                | 6.5%  | 11.7% | 24.1% | 8.8% |
| Maryland                   | 2,798  | 72.8%                | 5.9%  | 3.8%  | 12.3% | 1.7% |
| Virginia                   | 2,778  | 70.1%                | 8.5%  | 3.9%  | 10.3% | 1.8% |
| <b>State of Employment</b> |        |                      |       |       |       |      |
| District of Columbia       | 1,741  | 42.3%                | 9.1%  | 8.3%  | 29.0% | 4.7% |
| Maryland                   | 2,028  | 76.8%                | 5.4%  | 3.6%  | 4.0%  | 2.2% |
| Virginia                   | 2,209  | 73.9%                | 6.0%  | 2.6%  | 5.1%  | 1.4% |

Vehicles Available – Finally, Table 14 shows the mode distribution by the number of vehicles available to the respondent. Not unexpectedly, respondents who did not have a car available were considerably less likely to drive alone and considerably more likely to commute by bus or train than were those with one or more vehicles. As the number of vehicles in the household increased from zero to one 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 14**  
**Current Primary Mode by Number of Vehicles in the Household**

| Number of Vehicles | (n=__) | Primary Commute Mode |       |       |       |       |
|--------------------|--------|----------------------|-------|-------|-------|-------|
|                    |        | DA                   | CP/VP | Bus   | Train | B/W   |
| 0                  | 221    | 3.4%*                | 9.2%  | 35.9% | 38.1% | 12.4% |
| 1                  | 1,429  | 60.7%                | 7.7%  | 6.0%  | 18.9% | 4.0%  |
| 2                  | 2,434  | 74.5%                | 6.2%  | 2.4%  | 10.2% | 1.7%  |
| 3 or more          | 1,953  | 76.8%                | 7.6%  | 2.3%  | 7.3%  | 1.4%  |

\* Respondents in this group could be passengers in taxi

**Length of Commute**

*Number of Miles* – Commuters in the sample had a wide range of commute distances, ranging from less than one mile to more than 100 miles. Table 15 presents the distribution of distance. The average one-way distance was 16.3 miles, slightly shorter than the 16.5 miles reported in the 2004 SOC survey. As shown in the table, more than one-third of the respondents (37%) commuted fewer than 10 miles one-way. Three in ten (29%) said they traveled between 10 and 19 miles. A small percentage (7%) had commute distances of 40 miles or greater.

Table 15  
**Commute Distance (miles)**  
(n=5,465)

| Number of Miles   | Percentage | Number of Miles      | Percentage        |
|-------------------|------------|----------------------|-------------------|
| Less than 5 miles | 17%        | 20 to 29 miles       | 17%               |
| 5 to 9 miles      | 20%        | 30 to 39 miles       | 9%                |
| 10 to 14 miles    | 17%        | 40 or more miles     | 7%                |
| 15 to 19 miles    | 12%        | <b>Mean distance</b> | <b>16.3 miles</b> |

Respondents who were employed in the District of Columbia traveled the shortest distance to work, an average of 14.9 miles. Respondents employed in Maryland traveled the longest distance, an average of 17.2 miles. Respondents who worked in Virginia traveled 15.9 miles one way. But respondents who lived in Maryland and Virginia traveled farther, 18.3 miles and 15.9 miles, respectively, than did residents of the District of Columbia, who traveled only 9.0 miles one way to work.

*Commute Travel Time* – Survey respondents commuted, on average, about 35 minutes one way, approximately the same as the 34 minute average trip from the 2004 SOC survey. As shown in Table 16, about a third (35%) of respondents commuted 20 minutes or less and 43% commuted between 21 and 45 minutes. The remaining 22% traveled more than 45 minutes.

Table 16  
**Commute Distance (minutes)**  
(n=5,941)

| Number of Minutes  | Percentage | Number of Minutes    | Percentage        |
|--------------------|------------|----------------------|-------------------|
| 10 minutes or less | 14%        | 46 to 60 minutes     | 14%               |
| 11 to 20 minutes   | 21%        | More than 60 minutes | 8%                |
| 21 to 30 minutes   | 20%        | <b>Mean time</b>     | <b>35 minutes</b> |
| 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 17, commuter rail riders traveled the farthest, 27.0 miles one-way. Carpoolers/vanpoolers also traveled more than 20 miles one way. But commuter rail, bus, and train riders spent the longest time commuting, at least 46 minutes one-way, compared to about 35 minutes for all respondents.

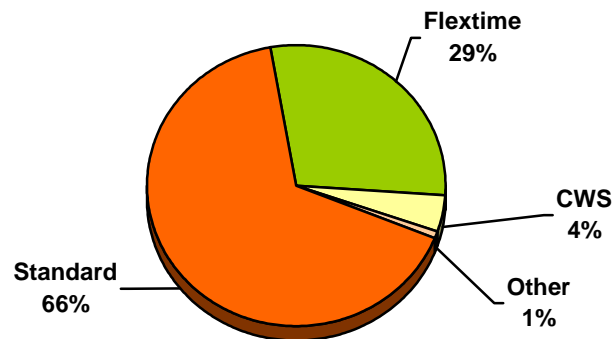
Table 17  
Commute Distance by Primary Commute Mode

| Primary Commute Mode | Average Distance (mi.) |          | Average Time (min.) |         |
|----------------------|------------------------|----------|---------------------|---------|
|                      | (n=__)                 | Average  | (n=__)              | Average |
| Drive alone          | 4,085                  | 16.4 mi. | 4,250               | 32 min. |
| Carpool/Vanpool      | 402                    | 20.9 mi. | 453                 | 41 min. |
| Bus                  | 206                    | 16.7 mi. | 286                 | 51 min. |
| Metrorail            | 440                    | 14.5 mi. | 604                 | 46 min. |
| Commuter rail        | 34                     | 27.0 mi. | 40                  | 62 min. |
| Bike/walk            | 147                    | 2.3 mi.  | 153                 | 16 min. |

Non-Standard Work Schedules

*Non-Standard Work Schedules Used* – Figure 4 shows the distribution of respondents’ work schedules. The majority (66%) of respondents who traveled outside their homes for work said they worked a “standard” schedule, defined for full-time workers as 5-days per week. Of those who worked a “non-standard,” the most common schedule was flex-time or flexible work hours, used by 29% of respondents. Compressed work schedules were used by about four percent of respondents; 4/40 and 9/80 compressed schedules were most typical. The remaining one percent worked another type of schedule.

Figure 4  
Non-Standard Schedule Types Used  
 (n=6,057)



*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 18, 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 worked compressed schedules also had higher train ridership but bus use percentages were essentially the same for all three groups.

Table 18  
Current Primary Mode by Use of Non-Standard Schedules

| Type of Non-Standard Schedule | (n=__) | Primary Commute Mode |       |      |       |      |
|-------------------------------|--------|----------------------|-------|------|-------|------|
|                               |        | DA                   | CP/VP | Bus  | Train | B/W  |
| CWS                           | 263    | 63.4%                | 10.8% | 5.9% | 18.7% | <1%  |
| Flextime                      | 1,650  | 69.1%                | 7.6%  | 4.3% | 11.3% | 3.4% |
| No non-std schedule           | 3,912  | 70.8%                | 6.9%  | 5.1% | 13.6% | 2.5% |

Alternative Mode Use Characteristics

*Length of Time Using Alternatives* – Respondents who used an alternative mode of transportation to get to work at the time of the survey were asked how long they had been using the alternative mode. Results are presented in Table 19 for the 2007, 2004, and 2001 SOC surveys.

Table 19  
Length of Time Using Alternative Mode – 2007, 2004, 2001

| Time Using Alternative Modes | 2007 SOC<br>(n=1,597) | 2004 SOC<br>(n=1,719) | 2001 SOC<br>(n=1,854) |
|------------------------------|-----------------------|-----------------------|-----------------------|
| Less than one year           | 17%                   | 23%                   | 28%                   |
| 12 – 24 months               | 21%                   | 23%                   | 23%                   |
| 25 – 36 months               | 10%                   | 9%                    | 49%                   |
| 37 – 60 months               | 13%                   | 12%                   |                       |
| More than 60 months          | 39%                   | 33%                   |                       |
| <b>Mean duration</b>         | <b>80 months</b>      | <b>70 months</b>      | <b>N/A</b>            |

A substantial portion of respondents who were using alternative modes at the time of the survey were long-term users of alternative modes. Four in ten (40%) respondents had used their current alternative



mode for more than five years and more than six in ten (62%) had used this mode for more than two years. The average time using an alternative mode was 80 months.

The table also shows results for this question from the 2001 and 2004 surveys, in the fourth and third columns, respectively. The results for the three survey periods, appears to show a trend toward longer use of alternative modes. In 2007, 62% of alternative mode users had used these modes for more than two years, compared to 54% of alternative mode users in 2004 and 49% of alternative mode users in 2001. Further, the average 80 months duration of an alternative mode use calculated from the 2007 survey data was considerably longer than the average 70 month duration calculated in 2004.

There is no obvious reason why these results would have been observed. In fact, the result appears contradictory to the mode split results noted earlier, that show greater use of alternative modes in 2007 than in 2004. This would suggest new alternative mode use between 2004 and 2007, which should lead to a reduction in the average alternative mode duration, rather than an increase.

*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 20 displays these results for both 2007 and 2004.

Table 20  
Modes Used Before Starting Current Alternative Modes – 2007, 2004

| <b>Previous Mode</b>                    | <b>2007 SOC<br/>(n=1,573)</b> | <b>2004 SOC<br/>(1,749)</b> |
|---|-------------------------------|-----------------------------|
| Always used this mode                   | 23%                           | 12%                         |
| Not working in DC metro area then       | 15%                           | 17%                         |
| Made a shift from another mode          | 62%                           | 71%                         |
| <b>Made a shift from another mode *</b> |                               |                             |
| Drive alone, taxi, motorcycle           | 55%                           | 56%                         |
| Metrorail                               | 18%                           | 11%                         |
| Bus                                     | 15%                           | 15%                         |
| Carpool / vanpool                       | 10%                           | 10%                         |
| Bike / walk                             | 6%                            | 8%                          |
| Commuter rail                           | 2%                            | 1%                          |
| CWS / TW                                | 6%                            | 4%                          |

\*Adds to more than 100% because multiple responses were permitted

In 2007, about 15% of alternative mode users said they did not have a previous mode to report because they had not been working in the Washington metropolitan area then. This was nearly the same percentage as in 2004. About a quarter of these respondent said they had always used the current alternative modes. This was considerably higher than the 12% who reported not using any other mode in 2004. Six in ten (62%) respondents said they could name a previous mode for travel in the Washington area, compared to about 71% who could name a previous mode in 2004.

The bottom section of the table shows modes for respondents who reported a previous mode. More than half (55%) of respondents said they made a shift from driving alone. The remaining 45% shifted from a different alternative mode. About a third said they previously used transit; either a train (Metrorail or commuter rail) (20%) or bus (13%) and one in ten (10%) said they had carpooled or vanpooled before switching to their current alternative mode. The results for 2007 were similar to the 2004 results for most modes, with the exception of Metrorail, which was mentioned more often in 2007 than in 2004.

*Carpool and Vanpool Occupancy* – The average number of occupants in respondents’ carpools and vanpools was 2.5 and 9.9 people, respectively. Overall average pool occupancy was 2.7. The carpool occupancy was equal to the 2.6 person average from the 2004 and 2001 SOC survey. The vanpool average was about the same as the 10.0 observed in 2004, but lower than the 11.4 shown in 2001. The drop between 2001 and 2004 could reflect a shift to lower-passenger mini-vans. In 2001, 58% of vanpoolers said their vans carried 12 or more passengers, compared to only 43% who rode in vans of this size in 2007. But the 2007 sample included only 18 vanpoolers, so this result should be viewed cautiously.

*Access Mode to Alternative Mode Meeting Points* – Table 21 presents how carpoolers, vanpoolers, and transit riders traveled to where they met their rideshare partners or where they started their transit trip.

**Table 21**  
**Means of Getting from Home to Alternative Mode Meeting Place**  
(n=1,516)

| Access Mode to Alternative Mode                 | Percentage |
|---|------------|
| Walk  | 35%        |
| Picked up at home                               | 12%        |
| Drive to a central location (e.g., Park & Ride) | 18%        |
| Drive alone to driver’s/passenger’s home        | 10%        |
| Bus/transit                                     | 12%        |
| I am the carpool/vanpool driver                 | 10%        |
| Dropped off / rode in another carpool / vanpool | 1%         |
| Other*  | 2%         |

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

About a third (35%) of respondents walked to the meeting place. Transit riders were most likely to walk; 81% of bus riders and 37% of Metrorail riders said they used this method to get to the meeting point, while only three percent of carpoolers/vanpoolers walked to the meeting point.

About 12% said they were picked up at home by the carpool or vanpool driver and 12% of respondents said they took transit to the meeting point. Ten 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 (28%) 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 22, access trips to alternative mode meetings points tended to be short. Respondents traveled an average of 3.1 miles. Just over half (51%) of respondents traveled one mile or less to the meeting point. These were primarily bus and Metrorail riders. A third (34%) of respondents said they traveled between two and five miles. Only 15% of respondents traveled more than five miles.

**Table 22**  
**Distance Traveled from Home to Alternative Mode Meeting Point**  
(n=1,064)

| <b>Distance</b>  | <b>Percentage</b> |
|------------------|-------------------|
| 1 mile or less   | 51%               |
| 2 miles          | 14%               |
| 3 miles          | 8%                |
| 4 to 5 miles     | 12%               |
| 6 to 10 miles    | 11%               |
| 11 miles or more | 4%                |

**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 14% of respondents said they used or tried an alternative mode or another alternative mode in the past two years. This was notably less than the 22% who mentioned trying or using another alternative mode in 2004 and the 25% who mentioned using or trying another alternative mode in 2001. These numbers are consistent, however, with the longer use of current alternative modes described earlier and with a higher overall use of alternative modes. If commuters are satisfied with the alternative modes they are now using, they are perhaps less motivated to try another mode.

Respondents who said they had used or tried another alternative mode were asked which modes they had used/tried. Responses to this question are shown in Table 23 for 2007, 2004, and 2001.

**Table 23**  
**Alternative Modes Used/Tried in Past Two Years**

| <b>Alternative Modes Used/Tried</b> | <b>2007 SOC Percentage *</b><br>(n=879) | <b>2004 SOC Percentage *</b><br>(n=1,350) | <b>2001 SOC Percentage *</b><br>(n=1,500) |
|-------------------------------------|---|---|---|
| Train - Metrorail                   | 45%                                     | 52%                                       | 55%                                       |
| Train - commuter rail               | 7%                                      | 5%  |   |
| Bus                                 | 32%                                     | 32%                                       | 33%                                       |
| Carpool                             | 11%                                     | 14%                                       | 14%                                       |
| Bicycle                             | 8%                                      | 6%  | 3%  |
| Walk                                | 7%                                      | 7%  | 6%  |
| Vanpool                             | 0%                                      | 1%  | <1%                                       |

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

In 2007, train was the alternative mode mentioned most frequently; more than half of respondents who used or tried another alternative mode tried either Metrorail (45%) or commuter rail (7%). One-third of respondents (32%) tried or used bus and about one in ten (11%) tried or used a carpool. Smaller percentages said they had tried bicycling (8%) or walking (7%). The distribution of modes tried or used in 2007 was very similar to the results observed in 2004 and 2001.

*Length of Time Using Other Alternatives* – The majority of respondents who had tried or used an alternative mode other than one they were currently using used the modes for a short time. Table 24 indicates that about a third of these respondents used these modes for less than one month (13%) or used them “occasionally/once” (20%). About 42% used or tried the mode for one to six months. Only 24% used these other alternatives for more than six months. This latter group likely consisted of respondents who shifted to their current alternative mode from another alternative mode that they had used regularly before shifting.

Table 24  
Length of Time Using Alternative Modes Used/Tried in Past Two Years  
 (Modes Not Used Currently)  
 (n= 773)

| <b>Time</b>       | <b>Percentage</b> | <b>Time</b>       | <b>Percentage</b> |
|-------------------|-------------------|-------------------|-------------------|
| Occasionally/once | 20%               | 7 – 11 months     | 2%                |
| Less than 1 month | 13%               | 12 – 23 months    | 6%                |
| 1 – 6 months      | 42%               | 24 or more months | 16%               |

These results were considerably different from the generally long alternative mode duration for current alternative mode users, presented in Table 19. The short duration of use for this question reflects the exploratory or trial nature of use for a large share of these 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 25.

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” (13%), “no parking available” (6%), and “avoid congestion” (5%). Smaller percentages of respondents said they were tired of driving, had to pay a parking charge, or because they found a carpool or vanpool partner. The top personal circumstance reasons included: “changed jobs or work hours” (18%), “no vehicle available” (8%), or “moved residence” (8%).

Respondents Who Used or Tried Other Alternative Modes – The last column of Table 25 shows reasons given by past users or “trial users,” that is reasons respondents cited for trying or using modes they were no longer using. The most common reason was that respondents had “no vehicle available,” named by 24% of respondents. Other top reasons generally mirrored those that respondents gave for why they used their current alternative mode. To “save time” (8%), “save money” (8%), “avoid congestion” (5%), or “tired of driving” (4%) were the most important commute-related reasons. 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.

Table 25  
Reasons for Using Alternative Modes

| <b>Reasons</b>                        | <b>Percentage of Current Users<br/>(n=877)</b> | <b>Percentage of Past Users/Trial Users<br/>(n=764)</b> |
|---------------------------------------|--|---|
| <b>Commute related reasons</b>        |  |   |
| - Save money                          | 18%  | 8%  |
| - Save time                           | 13%  | 8%  |
| - No parking available                | 6%   | 3%  |
| - Avoid congestion                    | 5%   | 5%  |
| - Tired of driving                    | 4%   | 4%  |
| - Gas prices too high                 | 4%   | 2%  |
| - Too stressful, too much traffic     | 3%   | 2%  |
| - Parking expense too high            | 3%   | 1%  |
| - CP/VP partner available             | 2%   | <1%   |
| <b>Personal circumstances reasons</b> |  |   |
| - Changed jobs/work hours             | 18%  | 7%  |
| - Always used                         | 11%  | 0%  |
| - No vehicle available                | 8%   | 24%   |
| - Moved to new residence              | 8%   | 2%  |
| - Convenient, close to work           | 5%   | 4%  |
| - Employer/worksites moved            | 1%   | 2%  |
| - Spouse started new job              | 1%   | 0%  |
| - Get exercise                        | 2%   | 3%  |
| - Weather                             | 2%   | 8%  |
| - Safety                              | 1%   | 0%  |
| - Car became available                | 1%   | 0%  |
| <b>Other</b>                          | <b>9%</b>                                      | <b>6%</b>   |

\*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

*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 26.

**Table 26**  
**Reasons for Not Continuing Other Alternative Modes**

| Reasons                                       | 2007 SOC<br>Percentage*<br>(n=764) | 2004 SOC<br>Percentage*<br>(n=1,212) |
|---|------------------------------------|--------------------------------------|
| Too inconvenient                              | 18%                                | 20%                                  |
| Took too much time                            | 15%                                | 20%                                  |
| Job changes                                   | 12%                                | 13%                                  |
| Only used temporarily (e.g., car was in shop) | 8%                                 | 11%                                  |
| Vehicle became available                      | 6%                                 | 8%                                   |
| Need vehicle during/after work                | 5%                                 | 5%                                   |
| Weather related                               | 5%                                 | 4%                                   |
| Vehicle became unavailable/unreliable         | 4%                                 | 4%                                   |
| Costs too much                                | 3%                                 | 8%                                   |
| Moved residence                               | 1%                                 | 3%                                   |
| New or change in employer program             | 2%                                 | 1%                                   |
| Parking issue                                 | 1%                                 | 0%                                   |
| Bus/rail schedule/route change                | 1%                                 | 2%                                   |
| Child-related activities                      | 1%                                 | 2%                                   |
| Safety concerns                               | 1%                                 | 2%                                   |
| Other**                                       | 7%                                 | 5%                                   |

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

\*\*Each “Other” response was mentioned by less than one percent of respondents

The most frequently mentioned reasons why respondents did not continue using an alternative mode included that it was “too inconvenient” (18%), “took too much time” (15%), or because the respondent made a “job change” (12%). About one in ten (8%) said they intended to use the mode only temporarily, for example, because the car was in the repair shop. Smaller percentages of respondents noted they stopped using the alternative mode because a “vehicle became available,” because they “needed a vehicle during or after work,” or for “weather-related” reasons. These 2007 reasons were quite similar to the reasons noted n 2004.

### 3-C TELEWORKING

The SOC survey also explored respondents' telework experience. For purposes of this survey, teleworkers were defined as "*wage and salary employees who at least occasionally work at home or at a telework or satellite center during an entire work day, instead of traveling to their regular work place.*" This section presents these results for 2007 and, in some tables, results for 2004 and 2001, but a few points on the definition of telework should be noted.

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

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

#### Current and Potential Teleworking

*Respondents who Currently Telework* – Respondents were read the above definition of teleworking and asked if they would consider themselves teleworkers based on this definition. A total of 17.4% of all regional workers said they telework, either regularly or occasionally. About one in ten teleworkers (11%) said they telework every day that they work.

But teleworkers accounted for a higher percentage, 18.7%, of all regional commuters, that is, workers who travel to a main work location on non-telework days. Using this base of commuters excludes workers who are self-employed and for whom home is their only workplace. These workers do not have an outside work location, thus never make commute trips. The calculation of teleworkers as a proportion of commuters reflects a more realistic picture of the role of teleworking in eliminating commute trips, thus is relevant for assessing travel and air quality benefits of teleworking. The 18.7% of regional commuters who telework represents a significant increase over the 2004 level of 12.8% and a further increase over the 2001 level of 11.3%, as measured though the revised telework results from the 2001 SOC survey.

*Interest in Teleworking* – Respondents who said they were not teleworking 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 37% of these respondents replied that this would be possible.



Respondents for whom teleworking was a possibility were asked if they would want to telework. Nearly three-quarters, said they would be interested in teleworking on either an occasional basis (53%) or a regular basis (26%). These interested respondents equal about 29% of non-teleworkers and 24% of all commuters.

These results suggest additional telework growth potential exists in the Washington metropolitan region. Table 27 summarizes the telework status of all respondents who are “commuters,” that is, not self-employed/work at home full-time. As noted before, 18.7% of regional commuters are currently teleworking. But an additional 24% of commuters “could and would” telework, that is, they have job responsibilities that could be done while teleworking and they would be interested in teleworking, if given an opportunity. The remaining respondents said they would not be interested in teleworking (6%) or that their job responsibilities would not allow teleworking (52%).

Table 27  
Summary of Current and Potential Teleworking  
 All Respondents who are not Self-Employed/Work at Home

| Teleworking Status   | 2007 SOC<br>Percentage<br>(n=6,168) | 2004 SOC<br>Percentage<br>(n=6,896) |
|--|-------------------------------------|-------------------------------------|
| Currently teleworking  | 18.7%                               | 12.8%                               |
| Not teleworking  |                                     |                                     |
| - Job responsibilities allow teleworking and INTERESTED in teleworking (“could and would”) | 24%                                 | 16%                                 |
| - Job responsibilities allow teleworking, but NOT INTERESTED in teleworking                | 6%                                  | 6%                                  |
| - Job responsibilities would NOT allow teleworking   | 52%                                 | 65%                                 |

The table also summarizes the current and potential telework percentages measured in 2004. As shows in the table, the percentage of current plus potential telework rose substantially between 2004 and 2007, from about 29% of all commuters to 43%, while the percentage of commuters who said their jobs were incompatible with teleworking dropped (from 65% to 52%).

Because it seems unlikely that the composition of jobs changed substantially in the region, these results suggest a shift in commuters’ ability, or perception of their ability, to perform their work at home or another location away from their primary work location. It appears that a larger share of commuters believe they could telework, at least occasionally. This could be related to increasing availability of communication and computer technology, such as broadband internet, lower cost telephone options, and computer networking, or perhaps from greater understanding of more flexible telework options.

*Teleworking by Personal Characteristics* – Teleworking is not distributed equally by demographic group. Table 28 compares teleworking by respondents’ sex, ethnic group, age, income, commute distance, and state of residence and employment. The third column shows the percentage of each demographic group who telework today (e.g., 18% of men and 19% of women telework). The last column shows the percentage of non-teleworkers in the group who “could and would” telework if given the opportunity (e.g., 27% of non-teleworking women would telework). Note that this should be compared against the 29% of all non-teleworkers in the region who “could and would.”

Table 28  
Teleworkers by Demographic and Travel Characteristic

| Demographic Group     | All Respondents |                                   | Non-Teleworkers |  |
|-----------------------|-----------------|-----------------------------------|-----------------|--|
|                       | (n=___)*        | Percentage Who Currently Telework | (n=___)**       | Percentage who “could and would” Telework*** |
| <b>Sex</b>            |                 |                                   |                 |  |
| Male                  | 2,972           | 18%                               | 2,362           | 31%  |
| Female                | 3,290           | 19%                               | 2,672           | 27%  |
| <b>Ethnic Group</b>   |                 |                                   |                 |  |
| White                 | 4,005           | 23%                               | 3,175           | 33%  |
| Hispanic              | 467             | 12%                               | 414             | 13%  |
| African-American      | 970             | 11%                               | 863             | 28%  |
| <b>Age</b>            |                 |                                   |                 |  |
| Under 25 years        | 209             | 8%                                | 192             | 14%  |
| 25 – 34               | 990             | 16%                               | 830             | 30%  |
| 35 – 44               | 1,939           | 23%                               | 1,723           | 35%  |
| 45 – 54               | 1,737           | 20%                               | 1,420           | 28%  |
| 55 or older           | 1,258           | 17%                               | 1,040           | 29%  |
| <b>Income</b>         |                 |                                   |                 |  |
| Less than \$30,000    | 256             | 5%                                | 245             | 8%   |
| \$30,000 – \$59,999   | 809             | 5%                                | 761             | 21%  |
| \$60,000 – \$99,999   | 1,456           | 14%                               | 1,259           | 28%  |
| \$100,000 – \$139,999 | 1,214           | 26%                               | 989             | 37%  |
| \$140,000+            | 1,195           | 31%                               | 841             | 40%  |

Some demographic groups telework more than do others. For example, whites were more likely to telework than were either African-Americans or Hispanics. Teleworking appeared to increase with age up to the 35-44 years old group, peaking at 23%, then declining as age increased further. And teleworking increased as income increased; 26% of workers with household incomes between \$100,000 and \$139,999 teleworked, compared with only five percent of workers with incomes under \$60,000. A third (31%) of respondents with annual household incomes of \$140,000 or more teleworked.

As shown in Table 28 (cont.), below, teleworking also increased with increasing commute distance. Nearly a quarter (23%) of respondents who commuted 30 miles or more teleworked, compared with 19% of respondents who commuted between 10 and 29 miles and 15% of respondents who commuted fewer than 10 miles. Finally, Virginia and Maryland residents were slightly more likely to be teleworkers (21% and 18% respectively) than were residents of the District of Columbia (13%). And slightly larger shares of respondents who worked in Virginia (21%) teleworked than did respondents who were employed in Maryland (18%) or the District of Columbia (18%).

Table 28 (cont.)  
Teleworkers by Demographic and Travel Characteristics

| Demographic Group          | All Respondents |                                   | Non Teleworkers |  |
|----------------------------|-----------------|-----------------------------------|-----------------|--|
|                            | (n=___)*        | Percentage Who Currently Telework | (n=___)**       | Percentage who “could and would” Telework*** |
| <b>Commute Distance</b>    |                 |                                   |                 |  |
| Less than 10 miles         | 1,966           | 15%                               | 1,682           | 28%  |
| 10 – 29 miles              | 2,231           | 19%                               | 1,850           | 34%  |
| 30 miles +                 | 1,268           | 23%                               | 984             | 31%  |
| <b>State of Residence</b>  |                 |                                   |                 |  |
| District of Columbia       | 545             | 13%                               | 466             | 28%  |
| Maryland                   | 2,819           | 18%                               | 2,337           | 27%  |
| Virginia                   | 2,798           | 21%                               | 2,230           | 32%  |
| <b>State of Employment</b> |                 |                                   |                 |  |
| District of Columbia       | 1,762           | 18%                               | 1,445           | 34%  |
| Maryland                   | 2,040           | 18%                               | 1,704           | 24%  |
| Virginia                   | 2,223           | 21%                               | 1,766           | 29%  |

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

\*\* Respondents in the demographic group who do not currently telework

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

Table 28 also illustrates which groups have the greatest potential for future teleworking. That is, in which groups would non-teleworkers be most likely to telework in the future, if given the opportunity? The last column in the table shows percentages of non-teleworkers who believe their job responsibilities would allow teleworking and who would like to telework. In general, the groups with the highest current teleworking show the greatest additional potential and groups with low current teleworking also show low potential.

But some groups had noticeably higher potential than the 29% average among all non-teleworkers. These included high-income respondents (\$100,000 or more annual income) and respondents with moderate (11-29) to long commute distances (30 or more miles).

*Teleworking by Employment Characteristics* – The survey data also showed some differences in the distribution of teleworkers and potential teleworkers by employment characteristics. As shown in Table 29, non-profit agencies (21%) and private employers (21%) had higher teleworking rates than did government agencies, either state/local (7%) or federal (16%).

Generally, teleworking increased with increasing employer size. Nineteen percent of respondents who worked for employers with 1,000 or more employees teleworked and 21% of employers with between 251-999 employees teleworked, compared with only 11% 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 20% of these respondents said they telework. This is likely informal teleworking, in which the employee teleworks under an informal agreement between the employee and the supervisor, rather than a formal telework program.

Some occupations had higher teleworking rates than average, including sales (30%), professional (24%), executive/managerial (24%), and business/financial operations (technicians). Three common occupations with below average telework rates included administrative support (9%), service (6%), and precision craft/production (6%).

Table 29 also illustrates the potential for teleworking among these employment groups. As with the demographic groups, the relative percentages of non-teleworkers who could and would telework if given the opportunity generally mirrored the relative percentages of respondents who were teleworking in each group. A few groups did have higher potential than the 24% average for all non-teleworkers, however.

Two groups with latent potential for teleworking were employees of federal government agencies and non-profit organizations. More than a third of non-teleworking workers in these categories said their jobs would allow them to telework and that they would like to telework. Similarly, potential appears to exist among employers with 250 or more employees. About a third of non-teleworkers in this group said they could and would telework if given the opportunity.

Table 29  
Teleworkers by Employment Characteristics

| Employment Characteristics    | All Respondents |                                   | Non-Teleworkers |  |
|-------------------------------|-----------------|-----------------------------------|-----------------|--|
|                               | (n=_)*          | Percentage Who Currently Telework | (n=_)**         | Percentage who “could and would” Telework*** |
| <b>Employer Type</b>          |                 |                                   |                 |  |
| Private employer              | 3,027           | 21%                               | 2,414           | 26%  |
| Non-profit org.               | 635             | 21%                               | 497             | 42%  |
| Federal agency                | 1,337           | 16%                               | 1,116           | 35%  |
| State/local agency            | 756             | 7%                                | 694             | 21%  |
| <b>Employer Size</b>          |                 |                                   |                 |  |
| 1 – 25                        | 1,483           | 20%                               | 1,220           | 27%  |
| 26 – 100                      | 1,263           | 11%                               | 1,131           | 23%  |
| 101 – 250                     | 747             | 14%                               | 642             | 30%  |
| 251 – 999                     | 855             | 21%                               | 679             | 34%  |
| 1,000+                        | 1,402           | 19%                               | 1,133           | 36%  |
| <b>Occupation</b>             |                 |                                   |                 |  |
| Sales                         | 306             | 30%                               | 215             | 46%  |
| Executive, manager            | 1,155           | 24%                               | 881             | 44%  |
| Professional                  | 2,329           | 24%                               | 1,799           | 33%  |
| Business/financial operations | 314             | 23%                               | 242             | 24%  |
| Administrative support        | 567             | 9%                                | 515             | 21%  |
| Service                       | 412             | 6%                                | 374             | 13%  |
| Precision craft, production   | 271             | 6%                                | 255             | 13%  |

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

\*\* Respondents in the group who do not currently telework

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

*Reasons for Teleworking*– All respondents who teleworked were asked why they started teleworking. Responses to this question are shown in Table 30. The table also provides the results for this question from the 2004 and 2001 SOC surveys.

**Table 30**  
**Reasons for Teleworking**

| <b>Reasons</b>                                   | <b>2007 SOC<br/>(n= 1,132)</b> | <b>2004 SOC<br/>(n= 876)</b> | <b>2001 SOC<br/>(n= 1,025)</b> |
|--|--------------------------------|------------------------------|--------------------------------|
| New option that became available                 | 22%                            | 18%                          | 13%                            |
| Personal circumstance (weather, repairman, sick) | 16%                            | 10%                          | 4%                             |
| Convenient                                       | 12%                            | 8%                           | 3%                             |
| To get more work done                            | 11%                            | 9%                           | 12%                            |
| To save time                                     | 10%                            | 19%                          | 14%                            |
| To stay with family or children                  | 8%                             | 7%                           | 12%                            |
| Changed jobs/work hours                          | 8%                             | 6%                           | 6%                             |
| Special program at work                          | 7%                             | 4%                           | 7%                             |
| Initiated request on my own                      | 6%                             | 10%                          | 7%                             |
| Tired of driving                                 | 4%                             | 6%                           | 7%                             |
| Pressure/encouragement from employer             | 4%                             | 4%                           | 9%                             |
| Save money                                       | 3%                             | 4%                           | 7%                             |
| Wanting/needing quiet/uninterrupted work time    | 4%                             | 4%                           | 5%                             |
| Avoid congestion                                 | 4%                             | 4%                           | 5%                             |
| Employer/worksites moved                         | 2%                             | 1%                           | <1%                            |
| Other*   | 6%                             | 5%                           | 3%                             |

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

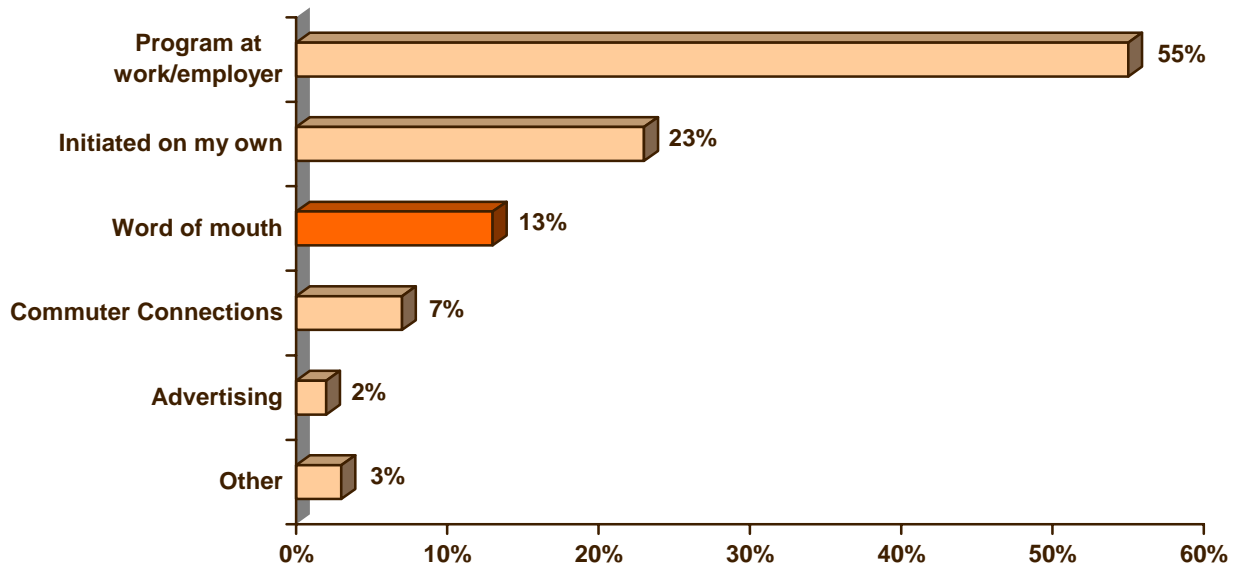
The most frequently mentioned reason was that a “new option became available” (22%). As seen in the table, this reason was at or near the top in both the 2004 and 2001 surveys, but gained in importance in the 2007 survey. One possible reason is that a larger number of employers are offering teleworking as a formal option

Other common reasons for started to telework included “personal circumstance” such as waiting for a repair or delivery person or because of weather conditions (16%), “convenient,” (12%) “to get more work done” (11%), and to “save time” (10%). Most of these responses also were noted as primary reasons in 2004 and in 2001.

*Sources of Telework Information*– Respondents who teleworked were asked how they had learned about teleworking and if they had received teleworking information directly from Commuter Connections or

MWCOG, either from Commuter Connections or from an MWCOG web site. The most frequently mentioned sources are shown in Figure 5.

Figure 5  
Sources of Information About Telework  
(n=1,132)



The largest source of information, by far, was “special program at work/employer,” named by more than half (55%) of the respondents. This percentage was the same as in 2004, but considerably higher than in the 2001 survey, in which only 34% of teleworkers said they learned of teleworking at work or through their employer. Seven percent of teleworkers said they received teleworking information directly from Commuter Connections or MWCOG. This was about the same percentage as mentioned Commuter Connections/MWCOG in both 2004 (5%) and in 2001 (4%). About a quarter said they “initiated the request on their own” (23%) and 13% said they learned of teleworking through “word of mouth” (13%)

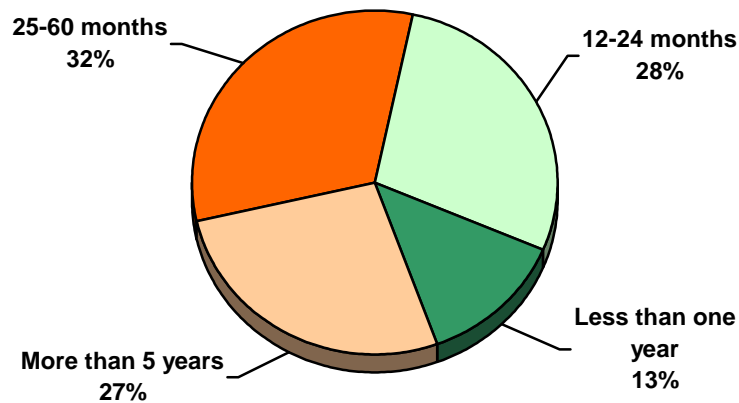
About two percent said they learned about teleworking through advertising. Although this is not necessarily advertising from Commuter Connections, MWCOG has advertised teleworking, so that this response could indicate additional teleworkers who learned about teleworking from outreach and promotion conducted 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.

**Telework Patterns**

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

*Length of Time Teleworking* – As illustrated in Figure 6, approximately four in ten (41%) respondents who teleworked started teleworking within the past two years and 13% started within the past year. More than a quarter (27%) said they had been teleworking more than five years. On average, respondents had been teleworking about 53 months.

**Figure 6**  
**Length of Time Teleworking**  
(n=1,132)



The duration of telework appeared to have increased somewhat since 2004. In the 2004 SOC survey, nearly half (49%) of teleworkers started teleworking within the past two years and only 19% said they had been teleworking more than five years. The average duration was 42 months.

*Formal or Informal Telework Arrangement* – Teleworkers were asked if they teleworked under a formal telework program or if it was an informal arrangements between the teleworker and the supervisor. Respondents who did not telework were asked if their employer had a telework program, either formal or informal, even though the respondent did not use it.

As shown in Table 31, about four in ten respondents said their employers allowed some telework, either under a formal program (19%) or under an informal arrangement between an employee and a supervisor (22%). The majority (59%) of respondents said their employers did not have any telework program or that they didn't know about any program. The incidence of some form of telework arrangement, either



formal or informal, appeared to increase since 2004; in the 2004 SOC survey, only 35% of respondents noted that their employer allowed telework, compared to 41% in 2007.

**Table 31**  
**Formal or Informal Telework Arrangements**  
All respondents and Teleworkers vs Non-Teleworkers

| <b>Program Type</b>  | <b>All respondents<br/>(n=6,168)</b> | <b>Teleworkers<br/>(n=1,132)</b> | <b>Non-teleworkers<br/>(n=5,036)</b> |
|----------------------|--------------------------------------|----------------------------------|--------------------------------------|
| Formal program       | 19%                                  | 39%                              | 15%                                  |
| Informal arrangement | 22%                                  | 53%                              | 16%                                  |
| No program           | 59%                                  | 8%                               | 69%                                  |

Arrangements for Teleworkers and Non-Teleworkers – Table 31 also presents the distribution of telework options for respondents who currently teleworked and those that did not. Teleworkers were much more likely than were other respondents to work for an employer with a formal telework program. Approximately four in ten (39%) said they teleworked under a formal arrangement and 53% said they teleworked under an informal arrangement with their supervisor. A small group (8%) said their employers did not have any telework program or that they didn’t know about any program.

By contrast, only 15% of non-teleworkers said their employers had a formal telework program and only 16% said teleworking was permitted under informal arrangements. More than two-thirds (69%) said the employer had no program or they didn’t know if a program existed.

Arrangement by Employer Type – The availability of teleworking arrangements varied widely by respondents’ employer types, as illustrated in Table 32.

**Table 32**  
**Formal or Informal Telework Arrangements**  
By Employer Type

| <b>Program Type</b>  | <b>Federal Agencies<br/>(n=1,272)</b> | <b>State/local Agencies<br/>(n=716)</b> | <b>Non-profit Organizations<br/>(n=613)</b> | <b>Private Employers<br/>(n=2,908)</b> |
|----------------------|---------------------------------------|---|---|--|
| Formal program       | <b>43%</b>                            | 9%                                      | 17%   | 14%                                    |
| Informal arrangement | 19%                                   | 12%                                     | <b>29%</b>                                  | <b>27%</b>                             |
| No program           | 39%                                   | <b>79%</b>                              | 54%   | 59%                                    |

Formal programs were most common among respondents who worked for a federal government agency. More than four in ten (43%) respondents who worked for federal agencies said their employer had a formal program, compared to only about 17% of respondents who worked for non-profit organizations, 14% who worked for private employers, and nine percent who were employed by state/local agencies. Respondents who worked for non-profit organizations or private employers were most likely to have informal teleworking. More than a quarter of respondents in these two groups said their employers permitted informal teleworking. State/local government agencies were least likely to permit teleworking under any arrangement. More than three-quarters (79%) of these respondents said their employer did not permit teleworking.

Arrangement by Employer Size – Teleworking arrangements also varied by the number of employees at respondents’ worksites. These results are presented in Table 33.

Table 33  
**Formal or Informal Telework Arrangements**  
By Employer Size

| <b>Program Type</b>  | <b>1-100<br/>Employees<br/>(n=3,104)</b> | <b>101-250<br/>Employees<br/>(n=719)</b> | <b>251-999<br/>Employees<br/>(n=808)</b> | <b>1,000+<br/>Employees<br/>(n=1,323)</b> |
|----------------------|--|--|--|---|
| Formal program       | 9%                                       | 19%                                      | 26%                                      | 34%                                       |
| Informal arrangement | 22%                                      | 21%                                      | 28%                                      | 25%                                       |
| No program           | 69%                                      | 59%                                      | 46%                                      | 41%                                       |

Respondents who worked for large employers were more likely to have access to teleworking program and to have access to a formal program. More than half of these respondents said their employer had a formal program (34%) or permitted informal teleworking (25%). By contrast, only three in ten respondents who worked for employers with 100 or fewer employees had access to either formal (9%) or informal (22%) teleworking.

*Telework Frequency* – The frequency with which respondents teleworked is detailed in Table 34. About two in ten respondents who teleworked did so infrequently, either for special projects (10%) or less than once per month/only in emergencies (8%). About a quarter (26%) said they teleworked a few times each month. But more than half (56%) said they teleworked at least one day per week.

On average, respondents who said they were teleworkers used this arrangement about 1.5 days per week. This overall average 1.5 days per week frequency represents an increase from the 1.3 days per week average observed in the 2004 SOC survey and a further increase from the 1.1 days per week average estimated for teleworking in 2001.

Table 34  
Frequency of Telework  
 (n=1,132)

| Frequency                           | Percentage |
|-------------------------------------|------------|
| Occasionally for special projects   | 10%        |
| Less than once per month/emergency  | 8%         |
| 1 – 3 times per month               | 26%        |
| 1 day per week                      | 18%        |
| 2 days per week                     | 16%        |
| 3 or more times per week            | 22%        |
| <b>Average (mean) days per week</b> | <b>1.5</b> |

Note that this 1.5 days per week frequency is lower than the 2.6 days per week frequency indicated earlier for respondents who teleworked during the survey week. But the 1.5 day per week overall telework frequency accounts for both the actual frequency of respondents who teleworked during the survey week and an expected weekly frequency for respondents who did not telework during the survey week, but said they occasionally teleworked (e.g., one to three times per month).

As with the rate of teleworking, the frequency of teleworking varied by personal and employment characteristics of respondents. Respondents in the following groups teleworked substantially more days per week than the average of 1.5 days per week:

- Teleworked from a location other than home 2.3 days per week
- Teleworked under a formal arrangement 1.9 days per week
- Worked in sales occupations 1.8 days per week
- Worked for very small employers (1-25 employees) 1.8 days per week
- Worked in Virginia 1.7 days per week

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

- Teleworked under an informal arrangement with supervisor 1.2 days per week
- Respondents who worked for state/local organizations 1.2 days per week
- Worked in the District of Columbia 1.2 days per week
- Worked for Federal government agencies 1.1 days per week
- Worked for employers with 251 or more employees 0.9 days per week

*Telework Locations* – As shown in Table 35, the overwhelming percentage (95%) of teleworkers said they teleworked exclusively from home. A very few teleworkers named another telework location. About two percent mentioned that they teleworked some days from home, but some days also from an-

other location, such as a satellite office. Nine respondents (less than one percent) said they teleworked from one of the 16 telework centers located in the Washington metropolitan region.

**Table 35**  
**Telework Work Place**  
(n=1,132)

| <b>Locations</b>                      | <b>Percentage</b> |
|---------------------------------------|-------------------|
| Home                                  | 95%               |
| Both home and other location          | 2%                |
| Satellite office provided by employer | 1%                |
| Telework center                       | <1%               |
| Other*                                | 1%                |

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

*Distance to Telework Location Outside the Home* – About five percent of teleworkers telework from a location outside their homes. They traveled an average distance of 7.5 miles to these locations. The distribution by distance categories is displayed in Table 36.

**Table 36**  
**Distance from Home to Non-Home Telework Location**  
(n=26)\*

| <b>Distance (miles)</b> | <b>Percentage</b> |
|-------------------------|-------------------|
| 1 mile or less          | 15%               |
| 2 – 5 miles             | 30%               |
| 6 – 10 miles            | 32%               |
| 11 – 29 miles           | 10%               |
| 30 miles or more        | 13%               |
| <b>Mean*</b>            | <b>7.5 miles</b>  |

\* Base and mean exclude 3 respondents who said they traveled 50 or more miles to the telework locations outside the home.

More than three-fourths (77%) of these respondents traveled 10 miles or less to the location. A tenth (10%) traveled between 11 and 29 miles and the remaining 13% said they traveled 30 or more miles.

*Access Mode to Non-Home Telework Locations* – Respondents who teleworked from locations other than home were asked what mode of travel they used to reach those locations. Results are shown in Table 37. The majority of respondents drove alone (78%). About two in ten used an alternative mode: bicycle/walk (8%), transit (7%), or carpool (5%).

**Table 37**  
**Access Mode to Non-Home Telework Locations**  
(n=37)

| Access Mode     | Percentage |
|-----------------|------------|
| Drive alone     | 78%        |
| Bicycle/walk    | 8%         |
| Transit         | 7%         |
| Carpool/vanpool | 5%         |
| Taxi            | 2%         |

**Other Work Performed Away From Main Workplace (Non-Telework)**

As was noted in the introduction to this section, the survey included only full-day and single-location working arrangements as telework. But several new questions were asked in the 2007 SOC survey to assess the incidence of other situations in which workers work away from a main office, either for part of a day, at clients’ office, or at several locations during the course of a day, such as an equipment repair technician or sales person might do in the course of the day.

The survey defined this alternative “work away” case as, “working at home or at a location other than your central work place during your normal work hours.” This definition would allow for part-day work away and multiple location work away, situations that would not have been considered telework, under the SOC survey definition. The survey asked respondents: 1) if they occasionally worked under such an arrangement, 2) where they worked in these cases, and 3) how often they worked this way.

About one in eight (13%) commuters said they did not telework, but occasionally worked away from their main work location under a non-telework arrangement. Nearly seven in ten (69%) of these respondents worked in professional or executive / managerial jobs and 60% had household incomes of \$100,000 or more.

Table 38 shows the locations at which this work was performed. Nearly three-quarters (73%) said they worked at home on these days. This is considerably less than the 95% of all-day teleworkers who said they teleworked from home. The difference between telework and the “work away” situations reflects work performed at “client’s or customer’s office (10%), “satellite office or other office of my employer” (10%) or at a “community or business center” (5%).

**Table 38**  
**Summary of Other Work Away from Main Workplace (Non-Telework)**  
 All Respondents who are not Self-Employed/Work at Home  
 (n=6,186)

| Work Away from Main Workplace                  | Percentage |
|--|------------|
| Currently working away from main workplace     | 13%        |
| Other work locations used (n=801)              |            |
| - Home   | 73%        |
| - Client/customer office                       | 10%        |
| - Satellite office/other office of my employer | 10%        |
| - Community or business center                 | 5%         |
| - Other  | 2%         |

*Frequency of Work Away from the Main Workplace* – Table 39 shows the frequency with which respondents worked at these other workplaces. More than four in ten of these respondents said they worked these other arrangements infrequently, either occasionally for special projects (24%) or less than once per month/only in emergencies (19%). Three in ten (30%) said they worked this arrangement a few times each month. The remaining 27% said they worked away from the main workplace at least one day per week. On average, respondents worked away from the main workplace only about 0.7 days per week, or about how the frequency of those who said they teleworked

**Table 39**  
**Frequency of Work Away from the Main Workplace**  
 (n=804)

| Frequency                           | Percentage |
|-------------------------------------|------------|
| Occasionally for special projects   | 24%        |
| Less than once per month/emergency  | 19%        |
| 1 – 3 times per month               | 30%        |
| 1 day per week                      | 10%        |
| 2 days per week                     | 9%         |
| 3 or more times per week            | 8%         |
| <b>Average (mean) days per week</b> | <b>0.7</b> |

### 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

*Public Transportation* – Respondents who worked outside their homes were asked to name any public transportation companies that they provided service in the area where they lived and the area where they worked. Respondents also were asked how far their homes were from the nearest bus stop and the nearest train station.

Transit Companies Operating – Table 40 presents the results for the first question. As shown, a large majority (83%) of respondents said that they knew the name of some public transportation that provided service in their home area. More than half (52%) said they knew of both bus and rail service, another quarter (27%) said they knew of bus service but not rail, and five percent said they knew of train service but not bus service. The remaining respondents said either that no bus or train companies provided service (10%) or that they thought service operated but didn’t know the name of the companies (7%).

Table 40  
Transit Service Operating in Home Area and Work Area  
(n=6,055)

| <b>Transit Service Operating</b>          | <b>Home Area Percentage</b> | <b>Work Area Percentage</b> |
|---|-----------------------------|-----------------------------|
| Bus and train                             | 52%                         | 51%                         |
| Bus only - no train service               | 27%                         | 20%                         |
| Train only – No bus service               | 5%                          | 7%                          |
| Service operated but don’t know companies | 7%                          | 13%                         |
| No bus or train service                   | 10%                         | 8%                          |

The percentage who said they knew names of transit companies that provided service in their work area was slightly lower, but still more than three-quarters (78%). Half (51%) said they knew of both bus and train service, two in ten (20%) said they knew of bus service only, and seven percent said they knew only that train service was provided. One in ten said that no transit companies operated either bus or rail service in their work area (8%) and 13% said they believed some service was available but didn’t know the names of companies that provided service.

The specific companies that respondents could name are presented in Table 41. Not surprisingly, the two companies mentioned most frequently for both home and work area were those that operate throughout the region. About half (49%) noted Metrobus provided service in their home area and a

slightly higher percentage (53%) said Metrobus provided service in the area where they worked. Similar percentages said that Metrorail/subway operated in their home area (45%) and at work (51%).

Table 41  
Public Transportation Companies that Provide Service in  
Home Area and Work Area  
 (n=6,055)

| Transit Available                        | Home Area Percentage | Work Area Percentage |
|--|----------------------|----------------------|
| <b>Bus Available – Bus Companies</b>     |                      |                      |
| Metrobus                                 | 49%                  | 53%                  |
| Ride On                                  | 10%                  | 7%                   |
| Fairfax Connector                        | 6%                   | 5%                   |
| THE BUS                                  | 5%                   | 2%                   |
| Loudoun Commuter Bus                     | 3%                   | 1%                   |
| OmniRide                                 | 3%                   | 2%                   |
| Alexandria DASH                          | 2%                   | 2%                   |
| MTA Bus                                  | 2%                   | 2%                   |
| Other                                    | 10%                  | 5%                   |
| <b>Train Available – Train Companies</b> |                      |                      |
| Metrorail/subway                         | 45%                  | 51%                  |
| MARC                                     | 7%                   | 6%                   |
| Virginia Railway Express                 | 6%                   | 5%                   |
| AMTRAK/ACELA                             | 3%                   | 2%                   |

\*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.

Three bus companies that provide service in part of the region were noted by at least five percent of respondents. Ten percent of respondents said RideOn, operated in their home area (Montgomery County, MD), six percent mentioned Fairfax Connector, serving Fairfax County, VA, and five percent named THE BUS, which serves Prince George’s County, MD. These bus companies also topped the list of services available in respondents’ work areas, but they were mentioned by slightly lower percentages of respondents.



In addition to Metrorail, respondents noted names of three commuter rail companies. MARC, operating several lines in Maryland, and Virginia Railway Express (VRE), serving Northern Virginia areas, were cited by seven percent and six percent of respondents, respectively. Three percent of respondents said AMTRAK provided service from their home area. These services also were noted as serving work areas, but percentages similar to those for the home areas.

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

To assess a measure of the closeness of transit, all respondents, including those who said no transit operated, were asked the distance from their homes to the nearest bus stop and nearest train station. Table 42 shows the distribution of access distance. More than half of the respondents said they lived within one-half mile of a bus stop and more than 80% said they lived within two miles of a bus stop. Over all respondents, the average distance was 1.5 miles.

**Table 42**  
**Distance from Home to Bus Stop and Train Station**

| <b>Distance</b>    | <b>Bus Stop<br/>(n=5,003)</b> | <b>Train Station<br/>(n=5,013)</b> |
|--------------------|-------------------------------|------------------------------------|
| Less than 0.5 mile | 52%                           | 7%                                 |
| 0.5 – 0.9 miles    | 16%                           | 10%                                |
| 1.0 – 1.9 miles    | 13%                           | 18%                                |
| 2.0 – 5.9 miles    | 11%                           | 33%                                |
| 6.0 miles or more  | 7%                            | 33%                                |
| Mean               | 1.5 miles                     | 6.4 miles                          |

Train stations were quite a bit farther away for most respondents. Only seven percent said they were within one-half mile of a Metrorail or commuter rail station and fewer than two in ten lived within a mile. More than two-thirds said they were at least two miles away from the nearest train station. On average, respondents lived an average of 6.4 miles away.

Table 43 presents a comparison of the transit access distance for the five transit categories in Table 42. Again, it is important to emphasize that “service provided” was defined by respondents’ perception. Respondents who said both bus and train service operated reported the shortest distance to transit access points, 0.7 miles to the nearest bus stop and 3.5 miles to the nearest train station.

**Table 43**  
**Mean Distance from Home to Bus Stop and Train Station**  
 By Type of Transit Service Operating in Home Area

| <b>Service Provided</b>   | <b>Bus Stop</b> | <b>Train Station</b> |
|---|-----------------|----------------------|
| Bus and train provided<br>(bus n = 2,426, train n = 2,488)                | 0.7 miles       | 3.5 miles            |
| Bus only - no train service provided<br>(bus n = 1,548, train n = 1,372)  | 1.6 miles       | 10.1 miles           |
| Train only – No bus service provided<br>(bus n = 221, train n = 283)      | 2.5 miles       | 4.8 miles            |
| Service provided but don't know companies<br>(bus n = 289, train n = 304) | 2.3 miles       | 9.7 miles            |
| No bus or train service provided<br>(bus n = 524, train n = 566)          | 7.1 miles       | 15.0 miles           |

Respondents who said only bus operated in their home area lived on average 1.6 miles from a bus stop but 10.1 miles from a train station. Among respondents who reported only access to train, the bus stop distance was greater than in the “bus operates” category but the train station distance was nearly as close as for respondents who had both bus and train available.

Respondents were asked to estimate the distance to bus and rail, even if they said neither bus nor rail operated in the area where they lived. Not surprisingly, as seen in Table 43, these respondents reported the greatest access distances, 7.1 miles to the nearest bus stop and 15.0 miles to the nearest rail station. Because these respondents reported no service operating, these distances were clearly beyond the area these respondents classified as their “home area.”

Availability of Transit by Home Area – The analysis examined availability of transit services by the location of respondents’ home, with the region divided into three categories representing concentric rings around the central core. The core area included Alexandria, Arlington County, and the District of Columbia. The inner ring included Fairfax, Montgomery, and Prince George’s counties. The outer ring included Calvert, Charles, Frederick, Loudoun, and Prince William counties and any location outside this area. Table 44 presents the percentage of respondents in each area who said bus and/or rail operated in their home area and the average distance from their homes to bus stops and train stations.

As expected both bus and train service were more available in the central part of the region than in the outer jurisdictions. In the core area, 72% of respondents said both bus and train service operated in their home area and an additional 23% said either bus or train operated. By contrast, only about half of respondents in the inner ring said both bus and train operated and another 31% said either bus or rail companies provided service. Transit availability dropped off markedly in the outer ring; only 25% of respondents said both bus and train operated and only two-thirds said they had access to any transit.

Table 44  
Bus and Train Service by Home Area

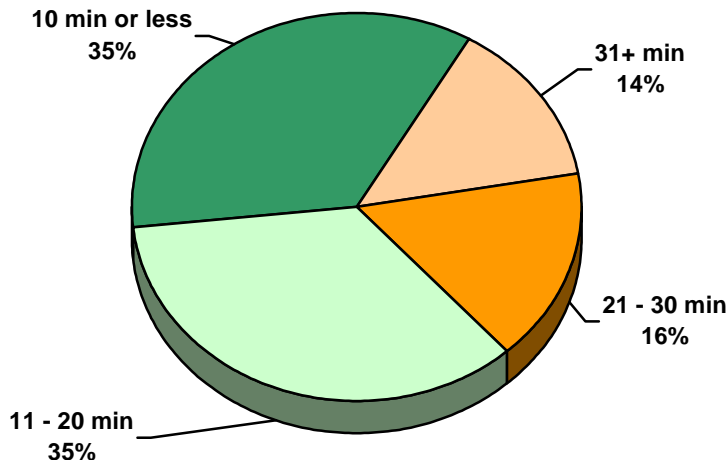
|   | Core Area | Inner Ring | Outer Ring |
|---|-----------|------------|------------|
| <b>Transit Operating</b>  | 1,644     | 1,629      | 2,782      |
| Bus and train   | 72%       | 56%        | 25%        |
| Bus only - no train service   | 18%       | 28%        | 31%        |
| Train only – No bus service   | 5%        | 3%         | 8%         |
| Service operated but don't know companies                                     | 4%        | 5%         | 12%        |
| No bus or train service   | 1%        | 8%         | 23%        |
| <b>Access Distance</b>  |           |            |            |
| Nearest bus stop distance<br>(core n=1,522, inner n=1,460, outer n=2,011)     | 0.3 miles | 1.0 miles  | 4.8 miles  |
| Nearest rail station distance<br>(core n=1,490, inner n=1,409, outer n=2,115) | 1.5 miles | 5.2 miles  | 14.8 miles |

Not surprisingly, the average transit access distance was the shortest for respondents who lived in the core area; just 0.3 miles to the nearest bus stop and 1.5 miles to the nearest train station. Respondents in the inner ring said they would have to travel 1.0 miles to the nearest bus stop and 5.2 miles to the nearest train station. Respondents who lived in the outer ring reported that the nearest bus stop was an average of 4.8 miles away and train was 14.8 miles away.

*Availability and Use of HOV Lanes* – The survey also examined the availability and use of High Occupancy Vehicle (HOV) lanes. More than one in four (28%) of the respondents who commuted one or more days per week said there was a special HOV lane along their route to work and 27% 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. These were essentially the same percentages as reported HOV availability and HOV use in 2004.

Respondents who regularly used the HOV lane for commuting estimated that using the lane saved them an average of 21 minutes for each one-way trip. As displayed in Figure 7, a third (35%) said they saved 10 minutes or less and another third (35%) saved between 11 and 20 minutes. The remaining HOV users were evenly split between savings of 21 to 30 minutes and greater than 30 minutes one-way.

Figure 7  
Travel Time Saving of HOV Users  
 (n=408)



HOV Lanes by Home Area – Table 45 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 each of the five Virginia jurisdictions said an HOV lane was available to them and in Prince William County more than half (54%) of the respondents reported HOV lanes available.

By comparison, less than one-third of residents in any Maryland jurisdiction reported HOV availability and in only two Maryland jurisdictions, Frederick County (30%) and Montgomery County (25%), did more than 15% of respondents have access to HOV lanes.

The last column of Table 45 illustrates the use of HOV lanes by county of residence for respondents who said they had HOV access. More than a quarter (27%) of all regional respondents who had HOV access on their route to work used HOV. HOV use when lanes were available was fairly consistent across the region with about 20% to 25% of respondents using the lanes, but two counties were exceptions to this general pattern. Nearly half (47%) of Prince William residents and 36% of Frederick County residents how had access to HOV lanes said they used them for their trip to work.

Table 45  
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 |
| <b>Washington metro region</b> | 5,923           | 28%                                | 1,641                          | 27%                       |
| <b>Virginia jurisdictions</b>  |                 |                                    |                                |                           |
| Prince William County, VA      | 557             | 54%                                | 299                            | <b>47%</b>                |
| Alexandria, VA                 | 531             | 42%                                | 227                            | 21%                       |
| Fairfax County, VA             | 508             | 42%                                | 211                            | 26%                       |
| Loudoun County, VA             | 538             | 41%                                | 220                            | 29%                       |
| Arlington County, VA           | 532             | 36%                                | 188                            | 22%                       |
| <b>Maryland jurisdictions</b>  |                 |                                    |                                |                           |
| Frederick County, MD           | 546             | 30%                                | 167                            | <b>36%</b>                |
| Montgomery County, MD          | 529             | 25%                                | 134                            | 22%                       |
| Prince George’s, Co., MD       | 553             | 14%                                | 77                             | 22%                       |
| Charles County, MD             | 571             | 6%                                 | 32                             | 19%                       |
| Calvert County, MD             | 539             | 5%                                 | 26                             | 15%                       |
| District of Columbia           | 519             | 12%                                | 60                             | 15%                       |

\* 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. Half (50%) 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 46, 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 six percent of respondents who did not have access to HOV. And the drive alone rate for respondents who had access to HOV was 69%, compared to 74% for respondents who could not use HOV.

**Table 46**  
**Current Commute Modes (1+ days per week) by**  
 Availability of HOV Lanes

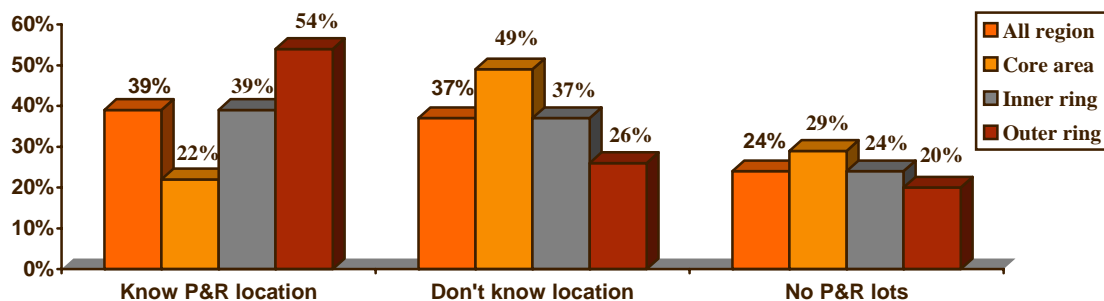
| <b>Primary Mode</b> | <b>HOV Available *</b><br>(n=1,644) | <b>HOV Not Available *</b><br>(n=4,279) |
|---------------------|-------------------------------------|---|
| Drive alone         | 69%                                 | 74%                                     |
| Carpool/vanpool     | 11%                                 | 6%                                      |
| Bus                 | 5%                                  | 5%                                      |
| Train               | 14%                                 | 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 8 depicts respondents’ awareness of the locations of Park & Ride lots along their route to work. About four in ten respondents (39%) across the region said they knew the locations of Park & Ride lots along their commuting route. About a third (37%) said they did not know the locations. A quarter (24%) said there were no Park & Ride lots along their route to work.

The figure also shows that awareness / availability of P & R lots varied substantially by home location in the region. Respondents who lived in the core area were least likely (22%) to say they knew of a P & R lot on their route; only 22% of these respondents knew of a lot, while 39% of respondents who lived in the inner ring and 54% of residents of the outer ring knew of a lot along their route to work.

**Figure 8**  
**Awareness of Park & Ride Lots Along Route to Work – By Home Location**  
 (regional n=6,045, core area n=2,269, inner ring n=1,989, outer ring n=1,412)



Of those who knew the locations, 19% 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 both the 2004 and 2001 SOC surveys.

**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 47 shows reasons mentioned by respondents, grouped by mode and by three reason categories: service availability, service characteristics, and personal preferences/needs.

Table 47  
**Reasons for Not Riding the Bus, Train or Using Carpool / Vanpool to Work\***

| <b>Reasons</b>   | <b>Bus<br/>(n=5,823)</b> | <b>Train<br/>(n=5,255)</b> | <b>CP/VP<br/>(n=6,051)</b> |
|--|--------------------------|----------------------------|----------------------------|
| <b>Service Availability **</b>                         |                          |                            |                            |
| No service available in home/work area                 | <b>16%</b>               | <b>27%</b>                 | N/A                        |
| Don't know if service is available/location of service | 3%                       | 3%                         | N/A                        |
| Don't know anyone to carpool/vanpool with              | N/A                      | N/A                        | <b>48%</b>                 |
| <b>Service Characteristics</b>                         |                          |                            |                            |
| Takes too much time                                    | <b>31%</b>               | <b>22%</b>                 | 5%                         |
| Bus/train/carpool partner could be unreliable/late     | 5%                       | 2%                         | 1%                         |
| Don't like to ride with strangers, prefer to be alone  | 6%                       | 5%                         | 4%                         |
| Too expensive  | 2%                       | 4%                         | <1%                        |
| Have to transfer/too many transfers                    | 4%                       | 3%                         | N/A                        |
| Have to wait too long for service                      | 2%                       | <1%                        | NA                         |
| Use other alternative mode                             | 3%                       | N/A                        | 2%                         |
| Too uncomfortable/crowded                              | 2%                       | N/A                        | NA                         |
| Doesn't save time                                      | <1                       | <1                         | 5%                         |
| <b>Personal Preferences/Needs</b>                      |                          |                            |                            |
| Need my car for work                                   | <b>16%</b>               | <b>14%</b>                 | <b>9%</b>                  |
| Work schedule irregular                                | 8%                       | 5%                         | <b>18%</b>                 |
| Trip is too long/distance too far                      | 10%                      | 6%                         | <1%                        |
| Need car before/after work                             | 9%                       | 4%                         | 11%                        |
| Live close to work, can walk, use other mode           | 3%                       | 2%                         | 3%                         |
| Need car for emergencies/overtime                      | <2%                      | <1%                        | 3%                         |
| Other***   | 6%                       | 13%                        | 5%                         |

\*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.

\*\*\* Note that respondents who said no train or bus service was available also were permitted to answer other reasons why they could not use bus or train

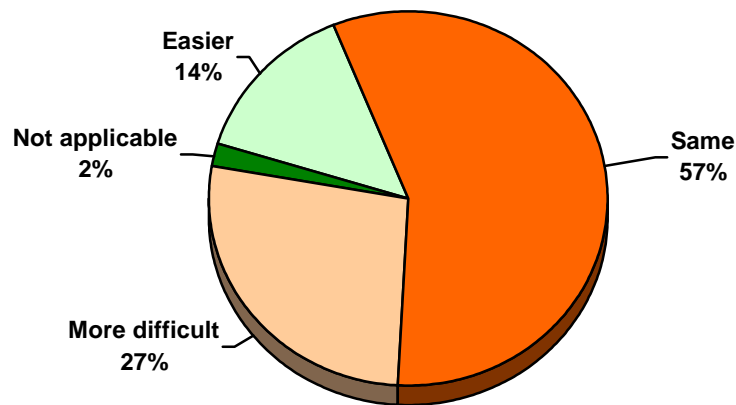
As illustrated, respondents cited some prominent reasons in each of the three categories. The top three reasons cited for each mode are shown in bold type. For example, about one in five respondents said they did not use the bus because it was not available (16%) or they did not know if it was available (3%). About half of all respondents said these were their reasons for not riding the train. “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 (48%) of respondents.

Respondents who did not use bus or train also noted several characteristics of the services as barriers to their use. The overwhelming reason in this group was “takes too much time,” but respondents also noted “don’t like to ride with strangers, prefer to be alone” and “service is/could be “unreliable.” Respondents also noted not wanting to ride with strangers as a deterrent to carpooling.

Common reasons in the personal preferences/needs category included “need my car for work” and “need my car before or after work.” “Irregular work schedules” was noted as a barrier to carpooling by 18% of respondents. “Trip is too long/too far” was named by 10% of respondents regarding bus use.

*Ease of Commute Compared to Last Year* – Respondents who did not telework 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 9, the majority of respondents (57%) said their commute is about the same. About a quarter (27%) said their commute was more difficult and 14% said their commute was easier. About two percent of respondents said they were not commuting in the Washington region a year ago, so could not provide a comparison.

Figure 9  
Commuter Easier, More Difficult, or Same as Last Year  
 (n=6,068)





Respondents who said their commute had changed were asked in what way it was easier or more difficult. The top section of Table 48 lists reasons that respondents’ commutes had improved and the bottom section shows the reasons that respondents’ commutes had worsened.

**Table 48**  
**Reasons for Easier or More Difficult Commute**

| Reasons                                 | Percentage |
|---|------------|
| <b>Easier Commute (n=810)</b>           |            |
| Shorter distance                        | 36%        |
| Trip is faster, takes less time         | 26%        |
| Route is less congested                 | 27%        |
| Trip is less stressful                  | 9%         |
| Changed work locations or work hours    | 5%         |
| 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                                   | 7%         |
| <b>More Difficult Commute (n=1,726)</b> |            |
| Route is more congested                 | 75%        |
| Longer distance                         | 12%        |
| Trip is slower, takes more time         | 12%        |
| Trip is more stressful                  | 7%         |
| Construction along route                | 7%         |
| Train, bus, Metro more crowded          | 3%         |
| Other                                   | 6%         |

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

Easier Commute – The most common reason for an easier commute was that it was shorter, cited by 36% of these respondents. This is likely due to a change in either a work location or home location. About a quarter of respondents said the trip was faster (26%) or the route they used was less congested (27%). One in ten respondents (9%) said the commute was less stressful. About one in ten respondents said their commute was easier because they had started using a different mode for commuting (e.g., started using bus, train, carpool, driving alone, walking, or bicycling).

More Difficult Commute – An overwhelming majority (75%) 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 (12%) or the trip took more time (12%). About seven percent said the trip was more stressful and a similar percentage said that construction was occurring along the route.

*Influence of Changes in Residence or Work Location* – Because it was expected that a commute might have become easier or more difficult because the origin and/or destination of the commute changed, all respondents were asked if they had made a change in their work location and/or home location in the past year. Table 49 displays results of commute ease for respondents who did and did not make a move.

**Table 49**  
**Commuter Compared to Last Year**  
by Made a Change in Work or Residence Location

| <b>Changed Home or Work Location</b> | <b>(n =__)</b> | <b>Easier</b> | <b>More Difficult</b> | <b>About the Same</b> |
|--------------------------------------|----------------|---------------|-----------------------|-----------------------|
| No change                            | 4,876          | 10%           | 26%                   | 63%                   |
| Yes                                  | 1,043          | 34%           | 33%                   | 33%                   |
| <b>Type of change made</b>           |                |               |                       |                       |
| Changed home                         | 336            | 26%           | 33%                   | 41%                   |
| Changed work                         | 504            | 38%           | 34%                   | 28%                   |
| Changed home and work                | 203            | 35%           | 30%                   | 35%                   |

About 17% made a change and 83% made no change. Eighty percent said they moved within the Washington metropolitan region. The other 20% moved from a location outside the Washington area. Because those who moved from outside the region could not provide a before-the-move comparison, they were excluded from the base for Table 49.

The percentages shown in the table suggest the ease or difficulty of the commute appears to have been related to moves for at least some of the respondents. The majority (63%) of respondents who did not move said their commutes were about the same. About 10% said their commute had improved and about a quarter (25%) said it had gotten more difficult. A similar percentage (33%) of respondents who moved said they had a more difficult commute. But the percentage of these respondents who said their commute had improved was much higher, 34%, 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.

The table also shows a breakdown of change in commute conditions by the type of move made: home only, work only, or both home and work. The differences between responses for these groups are small and with one exception are within the statistical margin of error. The only statistically significant dif-

ference was for the percentage of “about the same” for respondents who said they made only a home location change (41%) and the percentage who made only a work location change (28%).

Commuting as a Factor in Location Change Decisions – In recent years, anecdotal reports have suggested that some commuters might move their residences and/or seek new jobs at least in part because they wanted to make their commute easier or less costly. Several new questions were added to the SOC survey in 2007 to examine if commute factors were influencing residents of the area to make home or work location changes. Respondents who said they had made a change were asked what factors they considered in making the change and how important to their decision the ease of the trip to work was compared to other factors they considered. Table 50 displays the decision factors respondents mentioned.

**Table 50**  
**Factors Considered in Home or Work Location Changes**  
 Respondents who Made a Change in Work or Residence Location

| <b>Location Change Decisions</b>               | <b>Percentage<br/>(n=1,058)</b> |
|--|---------------------------------|
| <b>Commute Factors</b>                         |                                 |
| Length of ease of commute                      | 16%                             |
| Cost of commuting                              | 3%                              |
| Commuting options that would be available      | 3%                              |
| <b>Residential Factors</b>                     |                                 |
| Size of house                                  | 8%                              |
| Closeness to family or friends                 | 6%                              |
| Quality of neighborhood                        | 6%                              |
| Cost of living                                 | 5%                              |
| Cost of housing                                | 4%                              |
| Quality of schools, stay in same school system | 2%                              |
| Entertainment, shopping, services nearby       | 1%                              |
| <b>Job Factors</b>                             |                                 |
| Career advancement                             | 19%                             |
| Job satisfaction                               | 13%                             |
| Income, salary                                 | 11%                             |
| Job transfer                                   | 6%                              |
| Job opportunities for spouse                   | 3%                              |
| <b>Other</b>                                   | <b>11%</b>                      |

About two in ten respondents cited a commute-related factor as one factor that they considered in the moving decision. Length or ease of commute was cited by 16%; smaller percentages said the cost of commuting or the range of commuting options available at the new location had been a factor.

The job factor of career advancement was noted by 19% of respondents as a factor in the decision; job satisfaction (13%) and income/salary (11%) were named by at least one in ten respondents. About a third named a residential factor, such as the size of the house (8%), quality of the neighborhood (6%) or closeness to family and friends (6%) as factors they considered.

These respondents next were asked how important commuting factors had been in their decision, relative to the other factors they considered. Table 51 shows that a quarter (28%) said the commute factors were more important the others, four in ten (41%) said they were about equally important, and 25% said commuting factors were less important.

**Table 51**  
**Importance of Commute Ease Relative to Other Factors Considered**  
**in Home or Work Location Changes**

Respondents who Made a Change in Work or Residence Location  
 (n=981)

| <b>Importance of Commute Ease</b>          | <b>Percentage</b> |
|--|-------------------|
| More important than other factors          | 28%               |
| About the same importance as other factors | 41%               |
| Less important than other factors          | 25%               |
| Don't know                                 | 7%                |

Finally, employees who made a residential location change were asked if their employers had offered any information about financial incentives that might be available if the respondent moved to a home that was closer to the work location or moved closer to a bus stop or transit station.

These questions were designed to provide a baseline against which to measure the future impact of a new program Commuter Connections will be implementing during 2007. The “Live Near Your Work” program will encourage employers to inform employees of several state and/or federal financial incentives offered to employees who choose a home location that reduces the distance they travel to work or who choose a home location near a transit stop. The survey found that seven percent of respondents who had moved their homes had received information from their employers. Five percent said they receive information on financial incentives to move closer to transit.

### 3-E AWARENESS OF COMMUTE ADVERTISING AND SERVICES

#### Commuter Advertising Recall

The next set of questions in the survey inquired about respondents' awareness of commute information advertising. Just over half (52%) of all respondents said they had seen, heard, or read advertising about commuting in the six months prior to the survey. This was just slightly less than the 55% awareness that had been reported in the 2004 SOC survey.

*Message Recall* – These respondents were then asked what messages they recalled from this advertising. Approximately two-thirds (65%) could cite a specific message, approximately the same as the 63% who could recall a message in 2004. Table 52 lists messages respondents in the 2007 survey remembered and the percentage of respondents who cited each message. It also shows similar results for the 2004 and 2001 SOC surveys. The messages are divided into two categories: general rideshare and commute programs/services.

General Rideshare Messages – The top reason noted was a general rideshare message, “use the bus, train, Metrorail,” which was recalled by 18% of respondents. This was more than twice as high as the seven percent who named this reason in 2004 and 2001. Smaller numbers of respondents mentioned rideshare benefit messages in 2007: “it reduces traffic” (5%), “it would help the environment” (5%), “it saves time” (3%), and “it’s less stressful” (3%). Recall of all of these messages was essentially the same as in 2004, but below the recall noted in the 2001 survey.

Commuter Program/Service Messages – Commuters cited several commute program or service messages. About 14% mentioned “you can call for carpool/vanpool information” and seven percent said they had heard that “new trains or buses are coming.” These were similar percentages to those found for these messages in 2004.

One message that had dropped in awareness was that of Guaranteed Ride Home. In 2007, six percent volunteered this response, half the number who mentioned it in 2004. This is likely related to the change in Commuter Connections' regional marketing campaign, which curtailed GRH advertising as a specific message. Respondents also recalled other message specifically about Commuter Connections program or service, including, “call 1-800-745-RIDE/call Commuter Connections” (4%) and “Telework Center or teleworking” (3%). These percentages were about the same as were noted in 2004.

Table 52  
Recall and Influence of Advertising Messages

| Message Recalled                         | 2007 SOC*<br>(n=3,396) | 2004 SOC*<br>(n=4,014) | 2001 SOC*<br>(n=4,036) |
|--|------------------------|------------------------|------------------------|
| <b>General Ridesharing Messages</b>      |                        |                        |                        |
| Use the bus, train, Metrorail            | 18%                    | 7%                     | 7%                     |
| It reduces traffic                       | 5%                     | 3%                     | 5%                     |
| It would help the environment            | 5%                     | 2%                     | 4%                     |
| It saves time                            | 3%                     | 2%                     | 10%                    |
| It saves money                           | 3%                     | <1%                    | <1%                    |
| It is less stressful                     | 2%                     | 1%                     | 2%                     |
| Share a ride/ridesharing                 | <1%                    | <1%                    | 3%                     |
| <b>Commuter Program/Service Messages</b> |                        |                        |                        |
| You can call for carpool/vanpool info    | 14%                    | 17%                    | 9%                     |
| New trains or buses are coming           | 7%                     | 7%                     | 4%                     |
| Guaranteed Ride Home                     | 6%                     | 12%                    | 3%                     |
| Call 1-800-745-RIDE/Commuter Connections | 4%                     | 6%                     | 5%                     |
| HOV lanes                                | 3%                     | 2%                     | 12%                    |
| Telework Center/teleworking              | 3%                     | 3%                     | 2%                     |
| Employer would give Metrochek benefits   | 1%                     | 2%                     | 3%                     |
| None, don't know                         | 35%                    | 37%                    | 30%                    |
| Other **                                 | 10%                    | 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 four in ten (40%) said they remembered who sponsored the ad. These respondents mentioned the organizations listed in Table 53. The Washington Metropolitan Area Transit Authority (WMATA, Metro) was named by 20% of respondents. Commuter Connections or COG were named by nine percent of respondents, slightly less than the 13% who gave this response in 2004. Numerous other organizations were cited as sponsors in 2007, but each was named by less than one percent of respondents.

Table 53  
Recall of Advertising Sponsors  
 (n=2,275)

| Advertising Sponsor                        | Percentage |
|--|------------|
| Metro, WMATA                               | 20%        |
| Commuter Connections, MWCOG                | 9%         |
| Virginia Railway Express, VRE              | 0.9%       |
| Virginia Dept. of Transportation (VDOT)    | 0.8%       |
| District Dept. of Transportation (DDOT)    | 0.7%       |
| Arlington County Commuter Services         | 0.7%       |
| Maryland Mass Transit Administration (MTA) | 0.6%       |
| Fairfax County                             | 0.5%       |
| Don't remember, don't know                 | 60%        |
| Other *                                    | 14%        |

\* Each response in the “Other category” mentioned by less than one-half of one percent of respondents.

**Advertising Sources/Media** – Table 54 presents the primary sources or media through which respondents heard, saw, or read commute advertising.

About a third (35%) of respondents who recalled an ad said they heard it on the radio. This was a significant drop from the 55% who mentioned radio as their source in 2004. By contrast, substantially higher percentages of 2007 respondents noted that they saw the ad in a newspaper (22% in 2007 vs 12% in 2004) or on a sign on a transit vehicle or at a bus stop or Metro station (20% in 2007 vs 9% in 2004). In both 2007 and 2004, about a quarter (25%) said they saw the ad on television. A few respondents mentioned other sources.

**Advertising Source by Advertising Sponsor** – As might be expected, not all advertising sponsors used the same media to disseminate their messages. Table 54 also shows a comparison for sources mentioned by two advertising sponsors, Commuter Connections / COG and WMATA / Metro. As indicated, the media through which respondents said they heard of advertising was different for the two sponsors. Nearly two-thirds (64%) of respondents who mentioned CC/COG said they heard the ad on the radio, while only 24% of respondents who mentioned Metro said radio was the source. Conversely, half (50%) of respondents who mentioned Metro as the source noted they saw or heard this ad on a train/bus or in a train station or at a bus stop.

Table 54  
Advertising Source/Media  
 (n=2,275)

| Advertising Source/Media *                               | 2007 SOC vs 2004 SOC |          | By Ad Sponsor |       |
|--|----------------------|----------|---------------|-------|
|  | 2007 SOC             | 2004 SOC | COG/CC        | WMATA |
| Sample size (n= __)                                      | 2,275                | 4,133    | 225           | 449   |
| Radio  | 35%                  | 55%      | 64%           | 24%   |
| Television   | 25%                  | 25%      | 19%           | 25%   |
| Newspaper  | 22%                  | 12%      | 10%           | 17%   |
| Sign on transit vehicle, or at bus stop or Metro station | 20%                  | 9%       | 14%           | 52%   |
| At work  | 5%                   | <1%      | 3%            | 4%    |
| Website/internet   | 2%                   | 2%       | 5%            | 2%    |
| Roadside billboard/ad                                    | 2%                   | 2%       | 0%            | 1%    |
| Postcard in the mail                                     | 3%                   | 1%       | 2%            | 2%    |
| Don't remember   | 5%                   | 3%       | 8%            | 3%    |
| Other **   | 3%                   | 4%       | 2%            | 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.

### Commuter 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, the same percentage as in 2004. Table 55 presents the advertising messages that seemed more and less persuasive than average in 2007.

The most persuasive messages appealed to respondents’ personal interest or needs. A third of respondents said they were more likely to consider using an alternative after hearing ads about “saving the environment,” and a quarter who recalled ads for “it saves money,” “it is less stressful,” “use the bus, use Metrorail,” or “Guaranteed Ride Home.” 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 36% of bus riders, 25% of Metrorail riders, and 21% of carpoolers and vanpoolers said they were likely to consider using an alternative after hearing the ads, compared



with only 15% of respondents who were driving alone. 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.

Table 55  
Likely to Consider Using Alternative Modes  
After Seeing / Hearing Commute Advertising

| Advertising Message Recalled                      | (n=___)* | Percentage Likely to Consider Alternative |
|---|----------|---|
| It would help the environment                     | 149      | 32%                                       |
| It saves money                                    | 97       | 26%                                       |
| It is less stressful                              | 61       | 23%                                       |
| Use the bus, train, Metrorail                     | 548      | 23%                                       |
| Guaranteed Ride Home                              | 208      | 22%                                       |
| Employer would give Metrochek/SmarTrip benefits   | 26       | 20%                                       |
| It reduces traffic                                | 145      | 19%                                       |
| <b>All messages</b>                               |          | <b>18%</b>                                |
| Telework Center/teleworking                       | 77       | 17%                                       |
| New trains or buses are coming                    | 196      | 17%                                       |
| It saves time                                     | 66       | 16%                                       |
| Call 1-800-745-RIDE/Commuter Connections          | 143      | 15%                                       |
| Regional service available to help with commuting | 43       | 13%                                       |
| You can call for carpool/vanpool info             | 444      | 13%                                       |

\* Respondents who recalled ad message.

*Commuter 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 16% of these respondents said they did take some action. Specific actions noted are presented in Table 56.

The majority of respondents who took an action said they sought information about commuting, primarily on the internet (4%). Five percent said they inquired about a specific commute service, such as HOV lanes, GRH, or teleworking and two percent said they looked for a carpool partner.

Less than one percent said they tried or started using an alternative mode for commuting. This reflected change by only four respondents, so no further analysis can be done on this small sample. Of the four respondents, two started to use transit and two started carpooling. Prior to starting these new modes, three of the respondents had been driving alone to work and one did not report the previous mode.

**Table 56**  
**Actions Taken to Change Commute After Hearing / Seeing Commute Advertising**  
 (n=383)

| Actions Taken   | Percentage* |
|---|-------------|
| Sought info about commute service (e.g., GRH, HOV, telework)  | 5%          |
| Looked for commute info on the internet                       | 4%          |
| Looked for a carpool/vanpool partner                          | 2%          |
| Contacted local/regional organization for commute info        | 1%          |
| Changed route to work, started going to work earlier or later | 1%          |
| Asked family member or co-worker for commute info             | <1%         |
| Tried/started using alternative mode                          | <1%         |
|   |             |
| No action   | 84%         |
| Don't know  | 2%          |
| Other **  | 3%          |

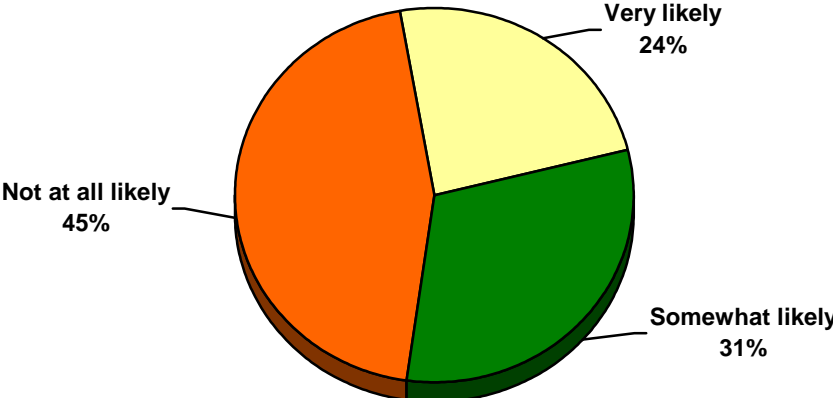
\* Might add to more than 100% because multiple responses were permitted.

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

***Influence of Ads on Commute Change Actions*** – More than two-thirds (67%) 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 Figure 10, 24% said they were very likely and 31% 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.

Figure 10  
Likely to Try Using an Alternative Mode Within the Next Year  
(n=50)



### 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 teleworking in the Washington region. In total, 51% of respondents said they knew such a number existed. This was higher than the 46% of respondents who said, in the 2004 SOC survey, that they knew a number to call for this information and higher still than the 33% of 2001 SOC survey respondents who said they knew a number or website existed.

The remaining respondents either said there was not such a phone number or website (31%) or that they did not know if a phone number or web site existed (18%).

*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 four in ten could name a specific number or web site. Table 57 summarizes the awareness of all numbers/web sites, as percentages of the regional population. About 11% named a WMATA phone number or web site. Commuter Connections was second only to WMATA as a regional information source, named by about two percent of all respondents. Other individual numbers or web sites were named by less than one percent of respondents who said they knew of such a resource.

When asked how they found out about the web sites/numbers they named, three in ten (30%) respondents said they learned about it from radio ad and 10% mentioned the television as the source. About one in ten (10%) cited the internet, 11% mentioned the employer, and 16% mentioned a sign or billboard. Twelve percent said they learned about the number or web site by word of mouth.

Table 57  
Recall of Regional Commuter Assistance Telephone Number or Web site  
 (2007 n=6,600, 2004 n = 7,200)

| Number or Web site                                    | 2007 SOC Percentage* | 2004 SOC Percentage* |
|---|----------------------|----------------------|
| Not aware of phone number/web site                    | 31%                  | 38%                  |
| Don't know if a phone number exists                   | 18%                  | 16%                  |
| Aware of phone number/web site, but cannot name it    | 30%                  | 31%                  |
| Aware of phone number/web site and can name it        | 21%                  | 15%                  |
| <b>Telephone numbers recalled:</b>                    |                      |                      |
| <b>1-800-745-RIDE (7433) Commuter Connections/COG</b> | <b>0.8%</b>          | <b>1.5%</b>          |
| 202-637-7000 METRO, WMATA                             | 3.5%                 | 1.4%                 |
| 301-565-5870 Montgomery Transit Info Call Center      | 0.4%                 | 0.2%                 |
| 703-324-1111 Fairfax County Ridesources               | 0.4%                 | 0.1%                 |
| 866-Ride-MTA  | 0.4%                 | N/A                  |
| <b>Web sites recalled:</b>                            |                      |                      |
| <b>www.mwcog.org</b>                                  | <b>0.2%</b>          | <b>0.2%</b>          |
| <b>www.commuterconnections.org</b>                    | <b>0.3%</b>          | <b>0.3%</b>          |
| <b>www.commuterconnections.com</b>                    | <b>1.0%</b>          | <b>1.0%</b>          |
| www.wmata.com   | 6.8%                 | 6.8%                 |
| www.vre.org   | 0.3%                 | 0.3%                 |
| www.MetroOpensDoors.com                               | 0.5%                 | N/A                  |
| www.Maryland.com (MARC)                               | 0.5%                 | N/A                  |
| Other**   | 4.7%                 | 3.0%                 |

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

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

**Awareness and Use of Commuter Connections Program**

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

As noted earlier, two 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 51% of respondents said they had heard of the program for a total of 53%. This was slightly

lower name recognition than was observed in 2004. In the 2004 SOC survey, two-thirds (66%) said they had heard of Commuter Connections, either unprompted or prompted.

*Referral Sources to Commuter Connections Program* – Table 58 displays the methods by which respondents reported learning about Commuter Connections in 2007 and in 2004. In 2007, four in ten (43%) respondents cited the radio as their source of information and about 16% named television. A similar percentage named television in 2004, but the percentage who named radio was considerably higher in 2004 than in 2007. Word of mouth / referrals (8%), sign/billboard (7%), and newspaper ads or articles (7%) each were named by about one in twelve respondents. Smaller percentages cited other source, including internet (3%), employer (4%), or brochure (1%). About 14% said they didn’t remember how they heard about Commuter Connections.

Table 58  
Commuter Connections Program Referral Sources

| Information Source               | 2007 SOC<br>Percentage<br>(n=3,614) | 2004 SOC<br>Percentage<br>(n=4,133) |
|----------------------------------|-------------------------------------|-------------------------------------|
| Radio                            | 43%                                 | 56%                                 |
| Television                       | 16%                                 | 19%                                 |
| Word of mouth, friend, co-worker | 8%                                  | 5%                                  |
| Sign/billboard                   | 7%                                  | 5%                                  |
| Newspaper ads/article            | 7%                                  | 4%                                  |
| Internet                         | 3%                                  | 2%                                  |
| Employer                         | 4%                                  | 2%                                  |
| Sign on transit vehicle          | 2%                                  | N/A                                 |
| Brochure                         | 1%                                  | 1%                                  |
| Don’t know                       | 14%                                 | 10%                                 |
| Other *                          | 3%                                  | 4%                                  |

\* Each response in “Other category” mentioned by less than one percent of respondents.

*Awareness and Use of Commuter Connections’ Services* – Respondents who knew of Commuter Connections were asked what services the organization provided. Their responses are shown in Table 59. Respondents largely cited services that Commuter Connections actually does provide. About one third (39%) said they didn’t know specific services, but almost half knew the organization offered either general rideshare information (24%) or help finding a carpool or vanpool partner (22%). A quarter (23%) knew that Commuter Connections sponsored a GRH program, much less than said they knew about this program in 2004. About six percent said Commuter Connections offered transit route and schedule information, which can be accessed through links on Commuter Connections’ web site.

**Table 59**  
**Awareness of Commuter Connections Services**

| <b>Commuter Connections Services</b>    | <b>2007 SOC Percentage<br/>(n=3,614)</b> | <b>2004 SOC Percentage<br/>(n=4,133)</b> |
|---|--|--|
| Guaranteed Ride Home (GRH)              | 23%                                      | 40%                                      |
| Rideshare (carpool/vanpool) information | 24%                                      | 28%                                      |
| Help finding carpool/vanpool partners   | 22%                                      | 16%                                      |
| Transit route/schedule information      | 6%                                       | 5%                                       |
| Telework information                    | 1%                                       | 2%                                       |
| Park & Ride information                 | 1%                                       | N/A                                      |
| Don't know                              | 39%                                      | 36%                                      |
| Other *                                 | 3%                                       | 1%                                       |

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

Respondents who knew of Commuter Connections also were asked if they had contacted the program or visited a Commuter Connections or COG website in the past year and if so, what information or services they were seeking. Five percent of respondents who knew of Commuter Connections had contacted the program. Table 60 lists the information respondents said they were seeking in this contact.

**Table 60**  
**Information and Services Sought in Contact to Commuter Connections**  
(n=200)

| <b>Commuter Connections Services</b>             | <b>Percentage</b> |
|--|-------------------|
| Transit route/schedule information               | 33%               |
| Rideshare (carpool/vanpool) information          | 21%               |
| Guaranteed Ride Home (GRH)                       | 19%               |
| Help finding carpool/vanpool partners            | 14%               |
| Driving directions                               | 6%                |
| MetroChek / SmarTrip                             | 3%                |
| Telework information                             | 1%                |
| Park & Ride lot information, parking information | 1%                |
| Other *  | 9%                |

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

The largest share of respondents who contacted Commuter Connections said they were seeking transit route or schedule information (33%). About two in ten were looking for general rideshare (car-pool/vanpool) information and 14% said they were looking for help finding a carpool or vanpool partner (14%). Two in ten (19%) said they were looking for information about Guaranteed Ride Home

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

Finally, respondents were asked about their awareness and use of local jurisdiction commuter programs that delivered commute assistance services in the areas where they lived and/or worked. Table 61 presents the percentage of respondents who said they had heard of each of the nine organizations, when prompted with the organizations’ names.

Table 61  
**Heard of and Used Local Jurisdiction Commute Assistance Program**

| Organization   | (n=___) | Percentage       |                      |
|--|---------|------------------|----------------------|
|  |         | Aware of Program | Used Program Service |
| Alexandria Rideshare (City of Alexandria, VA)  | 746     | 28%              | <1%                  |
| Arlington County Commuter Services, The Commuter Store (Arlington County, VA)  | 879     | 37%              | 7%                   |
| Tri-County Council of Southern Maryland (Calvert and Charles Counties, MD)   | 1,223   | 35%              | 2%                   |
| Fairfax County RideSources (Fairfax County, VA)  | 1,331   | 11%              | 1%                   |
| TRANSIT Services of Frederick County (Frederick County, MD)  | 626     | 47%              | 4%                   |
| Loudoun County Office of Transportation Services (Loudoun County, VA)  | 662     | 31%              | 5%                   |
| Montgomery County Commuter Services, Bethesda Transportation Solutions, North Bethesda Transportation Center (Montgomery County, MD) | 923     | 13%              | 1%                   |
| RideSmart (Prince Georges County, MD)  | 886     | 16%              | 1%                   |
| PRTC OmniMatch (Prince William County, VA)   | 630     | 49%              | 9%                   |

Awareness of Local Programs – As shown awareness of these local programs ranged from 11% to 49% of respondents who were asked about a particular program. Six of the nine programs were known to at least a quarter of their target area respondents and four were known to a third or more.

Use of Local Jurisdiction Services – Table 61 also shows the percentage of respondents who said they had contacted the organizations. This again is the percentage of all respondents who lived or worked in the area served by the program. Nine percent of respondents in the PRTC OmniMatch area said they had contacted this organization and seven percent of respondents who lived or worked in Arlington County



said they contacted Arlington County Commuter Services or The Commuter Store. Five percent of respondents in Loudoun County and four percent of commuters in Frederick County contacted the commuter service organizations in their areas. All other local organizations had lower contact levels.

Respondents who had contacted a local jurisdiction program were asked what information or services they were seeking. The services desired are shown in Table 62. By far, the most prominent service sought by respondents was transit information, sought by 60% of respondents who contacted a local program. Much smaller percentages said they were looking for rideshare information (8%) or help finding a carpool or vanpool partner (6%). The predominance of transit information is reasonable, given that several of the local programs are administered by transit organizations

**Table 62**  
**Information and Services Sought from Local Commute Assistance Programs**  
 (n =223)

| <b>Commuter Connections Services</b>             | <b>Percentage</b> |
|--|-------------------|
| Transit route/schedule information               | 60%               |
| Rideshare (carpool/vanpool) information          | 8%                |
| Help finding carpool/vanpool partners            | 6%                |
| Travel directions                                | 6%                |
| MetroChek / SmarTrip                             | 4%                |
| Guaranteed Ride Home (GRH)                       | 2%                |
| Park & Ride lot information, parking information | <1%               |
| Other *  | 18%               |

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

### 3-G EMPLOYER-PROVIDED COMMUTER ASSISTANCE SERVICES

#### 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 2007. Results also are presented for 2004 and 2001, as observed in the 2004 and 2001 SOC surveys. It is important to note that in 2007 and 2004, the series of questions on this topic were different from those asked in 2001. In 2001, respondents were asked if the employer offered each of a series of commute services, then were asked, in a single question, to name any services they had used. In 2004 and 2007, 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 2007 and 2004 than was noted in 2001, with the single, non-service specific, question about service use.

*Incentives/Support Services* – Over half of the respondents (54%) said their employer offered one or more incentives or support services. This is essentially the same percentage as offered these services in 2004 and slightly higher than the percentage that offered incentives or support services in 2001. The percentages for individual services are shown in Table 63.

Table 63  
Alternative Mode Incentives and Support Services Offered by Employers – 2007, 2004, 2001

| Alternative Mode<br>Incentives and Support Services | Employer Offered Service * |                       |                       |
|---|----------------------------|-----------------------|-----------------------|
|   | 2007 SOC<br>(n=6,076)      | 2004 SOC<br>(n=6,866) | 2001 SOC<br>(n=6,860) |
| Metrochek/other subsidies for transit/vanpool       | 33%                        | 31%                   | 29%                   |
| Information on commute options                      | 20%                        | 22%                   | 25%                   |
| Bike/pedestrian facilities or services              | 17%                        | 14%                   | 9%                    |
| Preferential parking for CP/VP                      | 16%                        | 16%                   | 19%                   |
| GRH for emergencies/unscheduled overtime            | 12%                        | 12%                   | 19%                   |
| Financial incentives/subsidies for CP               | 3%                         | 4%                    | 7%                    |
| None – employer doesn’t offer any services          | 46%                        | 47%                   | 49%                   |

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

About four in ten (39%) respondents said their employers offered one or two of these services. An additional 15% said their employers offered three or more services. The most commonly offered services

were Metrochek/other subsidies for transit/vanpool, provided by 33% of employers, and information on commuter transportation options, offered by 20% of employers. About one in six respondents said their employers offered services for bikers and walkers (17%), preferential parking (16%), or GRH (12%). Only about three percent said their employers offered carpool subsidies.

As shown by the third and fourth columns of the table, availability of transit/vanpool subsidies and bike/pedestrian facilities appeared to have risen slightly between 2001 and 2007, as reported in the 2001 SOC survey, while availability of commute information and preferential parking appear to have dropped slightly. The percentage of respondents who said their employers offered GRH dropped between 2001 and 2004, but had no change between 2004 and 2007. The lower availability of employer-sponsored GRH could indicate a shift 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 displayed in Table 64.

**Table 64**  
**Parking Facilities / Services Offered by Employers – 2007, 2004, 2001**

| <b>Parking Facilities and Services</b>     | <b>Employer Offered Service</b> |                              |                              |
|--|---------------------------------|------------------------------|------------------------------|
|  | <b>2007 SOC</b><br>(n=5,426)    | <b>2004 SOC</b><br>(n=6,866) | <b>2001 SOC</b><br>(n=6,860) |
| Free on-site parking                       | 65%                             | 66%                          | 65%                          |
| Free off-site parking                      | 4%                              | 3%                           | 3%                           |
| Employee pays all parking charges          | 21%                             | 21%                          | 23%                          |
| Employee and employer share parking charge | 7%                              | 6%                           | 6%                           |
| Parking discounts for CP/VP*               | 15%                             | 14%                          | 14%                          |

\* Note that percentages of parking discounts for CP/VP are calculated on a base of respondents who do not have free parking available. These sample sizes were (2007 n=1,674; 2004 n=1,752; 2001 n=1,985)

The majority of respondents (65%) said their employers provided “free parking” at the worksite. An additional 4% 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 7% paid a portion of the cost with the balance paid by their employers. The availability of free parking appears to be the same as in 2004 and 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; 85% of federal employees said they had commuter services, compared with 58% of respondents who worked for non-profit organizations, and 40% of respondents who worked for state/local agencies. Respondents who worked for private employers were least likely to have incentives/support services; only 45% had services.

Table 65 present a comparison of the percentages of employers that offered various incentives/support services and parking services by employer type.

**Table 65**  
**Commuter Services/Benefits Offered**  
by Employer Type

| <b>Commuter Service/Benefit</b>                 | <b>Percentage of Employers Offering Services *</b> |                               |                              |                             |
|---|--|-------------------------------|------------------------------|-----------------------------|
|   | <b>Federal</b><br>(n=1,338)                        | <b>State/local</b><br>(n=758) | <b>Non-profit</b><br>(n=638) | <b>Private</b><br>(n=3,037) |
| <b>Incentives/Support Services</b>              |  |                               |                              |                             |
| Metrochek/transit/VP subsidy                    | 76%  | 18%                           | 37%                          | 20%                         |
| Commute information                             | 40%  | 17%                           | 18%                          | 13%                         |
| Preferential parking                            | 39%  | 10%                           | 9%                           | 9%                          |
| Bike/walk services                              | 30%  | 16%                           | 19%                          | 12%                         |
| GRH   | 11%  | 9%                            | 13%                          | 13%                         |
| Carpool subsidy                                 | 8%   | 2%                            | 4%                           | 2%                          |
| <b>Parking Facilities/Services</b>              |  |                               |                              |                             |
| Free parking (on-site or off-site)              | 53%  | 83%                           | 61%                          | 71%                         |
| Employee pays some or all of the parking charge | 39%  | 15%                           | 34%                          | 23%                         |
| No parking/don't know                           | 8%   | 2%                            | 5%                           | 6%                          |

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

Commuter 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 76% of Federal employees, but to only one-third of non-profit employees and 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; availability of this service was not significantly different at any employer type.

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 53% of respondents who worked for Federal agencies and 61% of respondents who worked for a non-profit said their employer provided free parking. The remaining respondents either had no parking at all or had to pay all or part of the cost of parking.

ing. By contrast, 83% of respondents who worked for state and local agencies and 71% 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 (37%) of respondents who worked for employers with 100 or fewer employees and half (52%) of respondents who worked for employers with 101-250 employees said they had any services. By contrast, two-thirds (69%) 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 66 compares availability of specific commuter assistance services by employer size.

**Table 66**  
**Commuter Services/Benefits Offered**  
by Employer Size (number of employees)

| <b>Commuter Service/Benefit</b>                 | <b>Percentage of Employers Offering Services *</b> |                           |                           |                            |
|---|--|---------------------------|---------------------------|----------------------------|
|   | <b>1-100</b><br>(n=2,752)                          | <b>101-250</b><br>(n=749) | <b>251-999</b><br>(n=857) | <b>1,000+</b><br>(n=1,408) |
| <b>Incentives/Support Services</b>              |  |                           |                           |                            |
| Metrochek/transit/VP subsidy                    | 23%  | 31%                       | 47%                       | 60%                        |
| Commute information                             | 13%  | 18%                       | 26%                       | 37%                        |
| Preferential parking                            | 10%  | 11%                       | 16%                       | 36%                        |
| GRH   | 19%  | 11%                       | 13%                       | 11%                        |
| Bike/walk services                              | 13%  | 17%                       | 25%                       | 31%                        |
| Carpool subsidy                                 | 1%   | 2%                        | 5%                        | 12%                        |
|   |  |                           |                           |                            |
| <b>Parking Services</b>                         |  |                           |                           |                            |
| Free parking (on-site or off-site)              | 76%  | 75%                       | 64%                       | 57%                        |
| Employee pays some or all of the parking charge | 21%  | 22%                       | 33%                       | 39%                        |
| No parking, don't know                          | 3%   | 3%                        | 3%                        | 4%                         |

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

Commuter 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/vanpool subsidies, commute information, and preferential parking, services offered by one-third of employers with 1,000 or more employees, but fewer than two in ten employers with 100 or fewer employees. The one exception to this rule was for GRH, which had

exactly the reverse trend; 19% of small employers offered GRH, compared with only 11% of employers with 1,000 or more employees.

Parking Services – Respondents who worked for large employers were less likely to have free parking. Fewer than six in ten (57%) 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, the analysis examined availability of services by the location of respondents’ work locations, divided into three categories, representing concentric rings around the central core of Alexandria, Arlington County, and the District of Columbia. The inner ring included Fairfax, Montgomery, and Prince George’s counties. The outer ring included Calvert, Charles, Frederick, Loudoun, and Prince William counties and any location outside this area.

Commuter Services / Benefits – As shown in Table 67, the pattern of commuter services offered by location in the region showed a definite trend for most services. Nearly all services were far more likely to be offered in the core jurisdictions, two-thirds of respondents who worked for a core area employer were offered transit subsidies, compared to a third of respondents who worked in the inner ring, and only four percent of respondents who worked in the outer ring.

**Table 67**  
**Commuter Services Offered**  
by Employer Location

| Commuter Service/Benefit                        | Percentage of Employers Offering Service * |                         |                         |
|---|--|-------------------------|-------------------------|
|   | Core<br>(n=2,473)                          | Inner Ring<br>(n=2,070) | Outer Ring<br>(n=1,448) |
| <b>Incentives/Support Services</b>              |  |                         |                         |
| Metrochek/transit subsidy                       | 65%  | 31%                     | 4%                      |
| Commute information                             | 24%  | 18%                     | 11%                     |
| Preferential parking                            | 18%  | 15%                     | 9%                      |
| GRH   | 12%  | 12%                     | 12%                     |
| Bike/walk services                              | 22%  | 16%                     | 9%                      |
| Carpool subsidy                                 | 4%   | 3%                      | 2%                      |
| <b>Parking Services</b>                         |  |                         |                         |
| Free parking (on-site or off-site)              | 41%  | 86%                     | 92%                     |
| Employee pays some or all of the parking charge | 48%  | 10%                     | 5%                      |
| No parking, don’t know                          | 11%  | 4%                      | 3%                      |

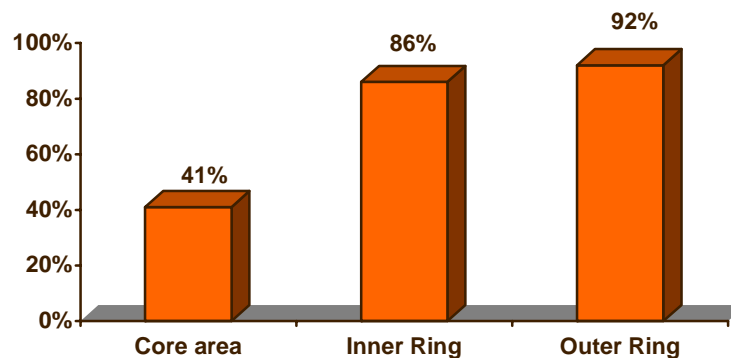
\* Might add to more than 100% because multiple responses were permitted.

Commute information, preferential parking, and bike/walk services also showed a pattern of highest availability in the core area, lesser availability in the inner ring, and significantly lower availability in the outer ring. The only service that did not follow this pattern was GRH, which had a consistent level of availability throughout all three areas.

Parking Services – Dramatic differences between respondents who worked in different parts of the region also are evident for parking availability. As can be seen in Figure 11, only four in ten (41%) respondents employed in the regional core said they had free parking on-site or off-site, compared to nearly nine in ten (86%) respondents who worked in the inner ring and more nine in ten (92%) of respondents who worked in the outer ring.

Figure 11  
Free Parking Availability by Work Area

Core area n = 1,715, Inner ring n=1,999, Outer ring n = 2,145



### Use of Commuter Assistance Services/Benefits

Respondents whose employers offered incentives/support services were asked if they had ever used these services. These results are provided in Table 68.

The most commonly used incentives/support services were commute information, used by 46% of respondents whose employers offered this service and Metrochek/transit or vanpool subsidy, used by 40% of respondents who had access to this benefit. About a quarter (24%) said they had used GRH and one in five had used preferential parking. Of respondents who were offered bike/walk services, 12% used this benefit and 15% of respondents whose employers offered carpool subsidies had used them.

Table 68  
Employer-Provided Incentives/Support Services  
 Employees Who Used Services When Offered

| Incentive/Support Service     | Respondents Who Used Services when Offered |              |
|-------------------------------|--|--------------|
|                               | (n=__)**                                   | Percentage * |
| Metrochek, VP/transit subsidy | 786  | 40%          |
| Commute information           | 548  | 46%          |
| Preferential parking          | 180  | 20%          |
| GRH                           | 205  | 24%          |
| Bike/walk services            | 130  | 12%          |
| Carpool subsidy               | 37   | 15%          |

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

\*\* Base equals the number of respondents whose employers provide these services

*Commuter Mode by Commuter Assistance Services/Benefits Offered* – Table 69 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 (62%) than were respondents whose employers did not provide these services (78%). 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; 19% 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.

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 central core of the region were much more likely than were employers in the inner or outer rings to offer commuter assistance services and drive alone rates were much lower for respondents who work in the core (49%) than for residents who work in either the inner ring (82%) or outer ring (86%).



**Table 69**  
**Current Primary Commute Mode**  
 by Commuter Services/Benefits Offered

| Services/Benefits Offered | (n=___) | Current Primary Commute Mode |       |     |       |     |
|---------------------------|---------|------------------------------|-------|-----|-------|-----|
|                           |         | DA                           | CP/VP | Bus | Train | B/W |
| <b>Incentives/Support</b> |         |                              |       |     |       |     |
| Yes                       | 3,242   | 62%                          | 9%    | 5%  | 19%   | 3%  |
| No                        | 2,834   | 78%                          | 5%    | 4%  | 6%    | 2%  |
| <b>Free Parking *</b>     |         |                              |       |     |       |     |
| Yes                       | 4,063   | 83%                          | 6%    | 3%  | 4%    | 2%  |
| No                        | 1,926   | 48%                          | 10%   | 8%  | 26%   | 3%  |

\* Free on-site or off-site parking

But respondents who work in the core area could be faced with greater impediments to driving alone. For example, respondents who work in the core area travel an average of 39 minutes to work, compared to 33 minutes for respondents working in the inner ring and 20 minutes for respondents who work in the outer ring. And respondents in the core also might experience greater congestion levels and have greater availability of commute options, such as transit, than would be experienced by workers outside this area. Any of these factors might have been at least as important in influencing respondents' commute mode choices.

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; 83% of respondents who had free parking drove alone, compared with less than half (48%) 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.

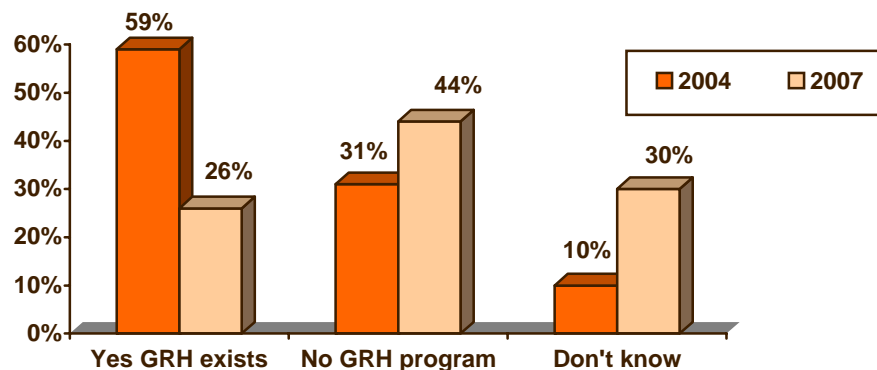
### 3-H GUARANTEED RIDE HOME

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 12, about a quarter (26%) replied there was such a program, 44% mentioned there was no such program, and the remaining 30% were unsure. The figure also shows GRH awareness for 2004. As shown, awareness of GRH was much lower in 2007 than in 2004. In the 2004 survey, 59% of respondents said a regional GRH program existed.

Figure 12  
Awareness of Regional GRH Program – 2007 and 2004  
 (n=6,867)



Awareness of GRH by Commute Mode – As shown in Table 70, awareness of GRH services varied by the commute modes respondents were using at the time of the survey. Respondents who primarily rode a commuter train were much more likely than were other respondents to be aware of the regional GRH program, but the sample size for this mode is small. Awareness was similar for users of other modes, with the exception of respondents who biked or walked to work. They were less likely to know about GRH than were other mode users.

Table 70  
Awareness of Regional GRH Program  
 by Current Primary Mode

| Current Primary Mode           | Percentage Aware of GH Program |          |          |
|--------------------------------|--------------------------------|----------|----------|
|                                | 2007 SOC                       | 2004 SOC | 2001 SOC |
| Drive alone (2007 n = 3,005)   | 26%                            | 61%      | 19%      |
| Carpool/vanpool (2007 n = 352) | 29%                            | 66%      | 26%      |
| Bus (2007 n = 216)             | 22%                            | 52%      | 22%      |
| Metrorail (2007 n = 437)       | 26%                            | 55%      | 24%      |
| Commuter train (2007 n = 34)   | 56%                            | 55%      | 24%      |
| Bike/walk (2007 n = 103)       | 15%                            | 43%      | 13%      |

*Use of GRH* – Two percent of regional commuters 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.

*Sponsor of GRH Program* – The 341 respondents who had registered for or used any GRH service were asked who sponsored this service. Nearly six in ten (57%) respondents said their employers sponsored the programs they had used. Note that the base for this distribution includes 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.

About a third (37%) of respondents noted Commuter Connections or MWCOG/COG as the sponsor of the program. This was an increase from the 21% who mentioned Commuter Connections as the sponsor in 2004 and the 13% who had mentioned Commuter Connections in the 2001 SOC survey. Two percent named VRE commuter rail as the sponsor.

### 3-I NEW REGIONAL COMMUTE PROGRAM CONCEPTS

Commuter Connections is currently developing or considering implementing new regional commuter assistance services and used the SOC as an opportunity to explore commuters’ potential interest in the services. The results of these question are presented below.

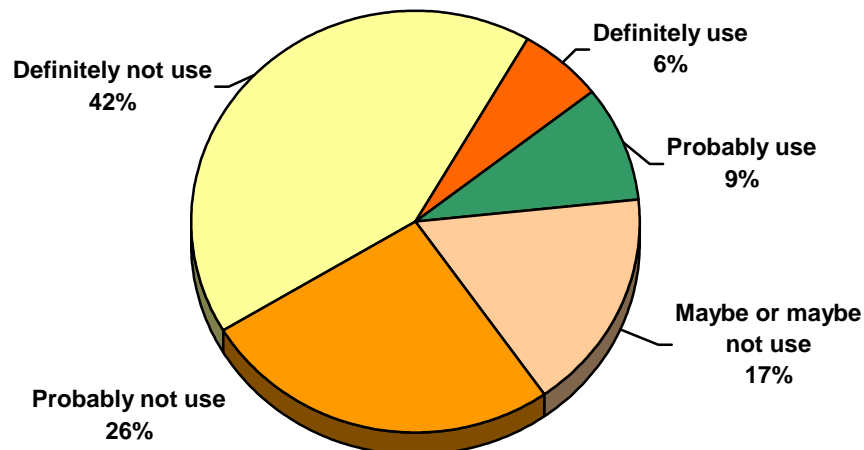
#### Internet Ridematching

The first of the programs, current under development, is an internet-based ridematching system, in which commuters who want a carpool or vanpool partner will be able to enter information about their home and work location, work hours, and other information about their commute and themselves and search an online database for commuters who have similar travel patterns and want to carpool or vanpool.

Survey respondents were read a description of this service and asked how likely they would be to use a services like this if it was available in the Washington region and commuters who participated were guaranteed that their personal contact information would be kept confidential.

As shown in Figure 13, about 15% of respondents said they would “definitely use” or “probably use” the ridematching service. Seventeen percent said they would “maybe or maybe not” use it. But the majority of respondents said they were unlikely to use the service; a quarter said they would “probably not use” it and 42% said they would “definitely not use” it.

Figure 13  
Likely to Use Internet Ridematching  
(n=6,054)



Respondents who said they would “probably not use” or “definitely not use” the service were asked why they would not be interested. Table 71, which presents these results, indicates that most respondents would not find the service useful because they were not interested in carpooling or vanpooling. About four in ten (38%) of respondents said they could not carpool or vanpool due to personal circumstances. Six percent said they were concerned about privacy or didn’t want to provide personal information on the internet.

**Table 71**  
**Reasons for Not Being Interested in Internet Ridematching**  
 (n=4,068)

| <b>Reason</b>  | <b>Percentage*</b> |
|--|--------------------|
| Not interested in carpooling or vanpooling                           | 53%                |
| Cannot carpool or vanpool due to personal circumstances              | 38%                |
| Concerned about privacy, don’t want personal information on internet | 6%                 |
| Already carpooling   | 3%                 |
| No access to internet  | 2%                 |
| Other  | 3%                 |

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

Respondents who said they would “definitely use,” “probably use,” or “maybe or maybe not use” the service were asked what forms of contact information they would be willing to provide to other commuters. Table 72 shows that more than half (58%) of respondents were willing to share their email address and a quarter (24%) were willing to provide a phone number. But two in ten were not willing to provide any of this contact information.

**Table 72**  
**Willingness to Provide Contact Information for Internet Ridematching**  
 (n=1,920)

| <b>Contact Information</b>                     | <b>Percentage*</b> |
|--|--------------------|
| Email address                                  | 58%                |
| Phone number                                   | 24%                |
| Postal address                                 | 14%                |
| Not willing to provide any of this information | 22%                |
| Don’t know                                     | 5%                 |

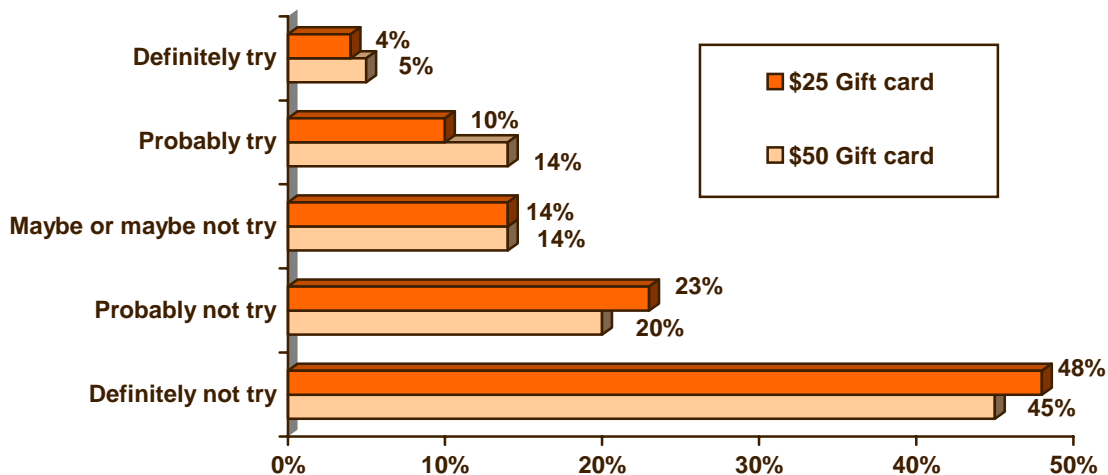
\* Might add to more than 100% due to multiple responses were permitted

**Financial Incentive**

The second program, currently being considered by Commuter Connections, would offer a financial benefit to commuters who would carpool. The benefit tested was a monthly gift card that could be used for purchases at area merchants. The program as described was assumed to provide an ongoing benefit, with no time limit.

Respondents who were driving alone full-time were asked first how likely they would be to try carpooling to receive a \$25 monthly gift card. As shown in Figure 14, about four percent of respondents said they would definitely try carpooling and another 10% said they would probably try carpooling to receive the \$25 gift card. About 14% said they would maybe or maybe not try carpooling. The remaining 71% of respondents said they were not likely to try carpooling.

**Figure 14**  
**Likely to Try Carpooling to Receive \$25 or \$50 Monthly Gift Card**  
 (n=4,316)



Respondents were then asked their likelihood to carpool if the value of the card was \$50. Figure 14 also shows these results. A slight increase was noted in respondents’ interest; at the \$50 level, about five percent of respondents said they would definitely try carpooling and 14% said they probably would try carpooling. Two-thirds (65%) of respondents said they still were not interested and were not likely to try carpooling to receive the \$50 card.

### 3-J 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 in the past two years. Of those who had ever seen a kiosk, approximately one in seven (14%) had used one of these kiosks to obtain commute or other transportation information in the past two years. This equated to about 1.4% of the total regional commuters. Respondents reported using kiosks in the locations listed in Table 73 below.

**Table 73**  
**Location of Kiosks Used**  
(n=85)

| <b>Kiosk Location</b>     | <b>Percentage*</b> |
|---------------------------|--------------------|
| Springfield Mall (VA)     | 11%                |
| Ballston Common Mall (VA) | 5%                 |
| Tysons Corner Center (VA) | 5%                 |
| Montgomery County (MD)    | 2%                 |
| Union Station (DC)        | 17%                |
| Fairfax County (VA)       | 1%                 |
| Pentagon City Mall (VA)   | 5%                 |
| Fair Oaks Mall (VA)       | 2%                 |
| Don't know                | 20%                |
| Other                     | 32%                |

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

*Information Obtained from Kiosks* – Respondents cited a variety of types of information that they obtained from the kiosks. These results are detailed in Table 74.

Table 74  
Information Obtained from Kiosks  
 (n=85)

| Information                               | Percentage* |
|---|-------------|
| <b>Transportation/Commute Information</b> |             |
| Transit route/schedule info               | 51%         |
| Maps and guides                           | 19%         |
| General rideshare information             | 5%          |
| Springfield construction information      | 3%          |
| Traffic information (SmartTraveler)       | 2%          |
| Carpool/vanpool matchlist                 | <1%         |
| <b>Other Information</b>                  |             |
| Mall/retail center information            | 5%          |
| Other**                                   | 16%         |

\* 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 half of respondents (51%) and maps and guides, cited by 19% of respondents. Smaller percentages of respondents noted general rideshare information (5%), information on the Springfield interchange construction, or traffic information (SmartTraveler) (2%).

**Influence of Kiosk Information on Commute Behavior**

Respondents who said they had used a kiosk (n=85) 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 a quarter (26%) of respondents 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 75 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 75**  
**Type of Transportation Tried After Obtaining Information from Kiosk**  
 (n=18)

| <b>Type of Transportation</b> | <b>Number of Respondents*</b> |                          |
|-------------------------------|-------------------------------|--------------------------|
|                               | <b>Before Using Kiosk</b>     | <b>After Using Kiosk</b> |
| Drive alone                   | 12                            | N/A                      |
| Train                         | 3                             | 11                       |
| Bus                           | 1                             | 8                        |
| Carpool/vanpool               | 1                             | 3                        |
| Other                         | 2                             | 0                        |

\*Number of respondents 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 76, the majority of respondents used these new alternative modes only temporarily. Nine of the 18 respondents used the alternative mode for three months or less.

**Table 76**  
**Length of Time Using Alternative Modes**  
 After Obtaining Information from Kiosk  
 (n=18)

| <b>Length of Time</b> | <b>Number of Respondents*</b> |
|-----------------------|-------------------------------|
| Less than 1 month     | 2                             |
| 1–3 months            | 7                             |
| 4-9 months            | 1                             |
| Over 9 months         | 6                             |
| Don't Know            | 2                             |

\*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 2007 survey would be compared against past results as measured in the 2004 and 2001 SOC surveys, the most recently performed regional commute surveys 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 2008. 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 2008.

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
- New regional commuter service concepts
- InfoExpress kiosks

### Commuter Patterns

*Use of drive alone appears to have fallen slightly since 2004.*

- Drive alone continued to be the most popular commute mode in the Washington metropolitan region. About 71.0% of weekly commute trips made to worksites outside the home were made by driving alone. This represented a decrease from the 74.1% of weekly trips that were drive alone in 2004.
- Weekly trips made by all alternative modes increased from 2004 to 2007. Train use increased from 12.8% in 2004 to 13.5% and bus use grew from 4.7% to 5.2%. Carpool and vanpool trips increased from 6.1% to 7.6% of weekly trips. Bike/walk use increased slightly from 2.4% to 2.7% of weekly commute trips.
- More than a quarter (26.9%) of regional commuters said they used an alternative mode (carpool, vanpool, public bus, buspool, Metrorail, commuter rail, bicycle, or walk) as their primary mode, that is, the mode they used most days in a typical week. An additional 3.5% of commuters used an alternative mode one or two days per week, resulting in three in ten (30.4%) of commuters using an alternative at least once per week.

- The most popular alternative mode was train, which was used by 12.6% of respondents as their primary mode. An additional 1.4% of commuters said they used the train one or two days per week.
- Bus was the primary commute mode for 4.7% of respondents. An additional 0.7% occasionally rode the bus to work.
- Carpooling/vanpooling was used by 7.0% of commuters most days during the week and 1.0% used these modes 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 7% of carpoolers/vanpoolers “casual” carpooled (slug).

*Regional commuters continue to try new alternative modes.*

- Approximately 14% of 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, fewer than the 22% who said in the 2004 survey that they tried another mode.
- Train was the mode mentioned most often; 52% of respondents said they had used or tried the train. One-third (32%) of respondents who tried/used another alternative mode tried the bus and 11% had tried carpooling. These were essentially the same percentages of trial and/or temporary use of alternatives as were observed in both 2004 and 2001.
- Prior to starting to use their current modes, about a third (34%) of respondents who were using alternative modes previously drove alone to work. About a third (35%) had used a different alternative mode. The remaining respondents said they either had always used the alternative mode (23%) or were not working in the metropolitan area then (15%).

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

- About 17% of the 2007 respondents said they started using their current alternative mode within the past year. But nearly two-thirds (63%) of respondents who used alternative modes said they had used these modes for more than two years and 40% had used the modes for five or more years. The average time using alternative modes was 80 months. This was a significant increase over the 70 months estimated in the 2004 SOC survey and 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 (28%) 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. A third (35%) of 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 remained the same as in 2004.*

- Respondents traveled on average of 16.3 miles and 35 minutes in 2007, essentially the same as in 2004 (16.5 miles and 35 minutes). But we note that the 2007 survey excluded Stafford County, VA, which has been included in the 2004 sample. Because Stafford County had longer than aver-

age commute distances in the 2004 survey, eliminating the county from the sample could have affected the average results in 2007.

## Telework

### *Teleworking grew substantially between 2004 and 2007, but potential exists for additional telework growth.*

- About 18.7% of regional commuters said they teleworked at least occasionally. This percentage is based on workers who were not self-employed and would otherwise travel to a worksite outside their homes if not teleworking.
- The percentage of regional telework, increased substantially from the 2004 level of 12.8%. And telework incidence grew in nearly every demographic and employer segment in which telework is feasible.
- The 2007 survey also showed that an additional 24% 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.”

### *Telework is concentrated in certain demographic and employment groups.*

- Teleworkers were statistically more likely to be: between 35 and 54 years old, of white ethnic background, with household incomes above \$60,000, and commute distance greater than 30 miles.
- Teleworkers 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.
- Telework incidence among federal agency workers continues to grow. In 2007, 16% of respondents who worked for federal agencies teleworked, compared to 12% in 2004 and only seven percent in 2001.
- The potential for additional telework seems to be primarily in the sub-groups in which telework is now common.

### *“Informal” telework arrangements predominate, but formal programs have increased since 2004.*

- About 19% of all respondents (both teleworkers and non-teleworkers) said their employer had a formal telework program and 22% said telework is permitted under informal arrangements between a supervisor and employee. Formal programs were most common at Federal agencies and among large employers.
- Among current teleworkers, nearly four in ten (39%) said they teleworked under a formal arrangement. The remaining teleworkers worked under an informal agreement with their supervisor. This suggests employers are more willing to craft individual agreements for selected employees than to institutionalize telework. But formal programs have increased over the past six

years. In 2004, 32% of teleworkers had a formal arrangement and in 2001, the percentage was only 27%. This appears to signal a greater acceptance of formal telework.

*Most teleworkers telework from home.*

- The overwhelming majority of teleworkers (95%) teleworked exclusively from home. The remaining five percent teleworked from a satellite office provided by an employer, a telework center, or both home and other location.

*The average frequency of telework seems to have increased slightly from 2004.*

- Teleworkers teleworked about 1.5 days per week on average. This was an increase in telecommute frequency from the 1.3 days per week estimated in the 2004 survey and the 1.2 days per week calculated in the 2001 survey.

*Teleworkers get information on telework from a variety of sources.*

- More than half of the teleworkers surveyed said they obtained information on telework from a “special program at work” and one in eight heard about it from “word of mouth.” About one in four said they “initiated request on my own.”
- Seven percent of telecommuters surveyed said they received telecommute information directly from Commuter Connections or MWCOG. This was slightly higher than the five percent who noted COG or Commuter Connections in 2004.
- An additional two 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.

*Additional workers occasionally work away from the main workplace for part of a day.*

- About 13% of respondents said they did not telework, but occasionally worked for part of a day away from their main workplace. About three-quarters said they typically worked at home but 20% said they worked at a client’s/customer’s office or another office of the respondent’s employer. On average, these work arrangements were used less frequently than was telework; the average frequency of “work away from the main workplace” was 0.7 days per week.

**Awareness and Attitudes Toward Transportation Options**

*A large percentage of respondents reported that either bus or train service operated in their home area.*

- Respondents were asked to name bus and train companies that provided service in the areas where they lived and worked. More than eight in ten (84%) said either bus or train operated in their home area and 78% said some transit was available in the area where they worked.

- About half of respondents said Metrobus operated near their home (49%) and a similar percentage (53%) said it operated in the area where they worked. Nearly as many respondents said that Metrorail operated: 45% said it operated in their home area and 51% said Metrorail operated where they worked.
- About half of respondents (52%) said they lived within ½ mile of a bus stop and 68% said they lived within a mile. Train station access was less convenient; only 17% lived within one mile of a train station. The average distances were 1.5 miles to the nearest bus stop and 6.4 miles to the nearest train station. But respondents who lived in the core jurisdictions of the District of Columbia, Alexandria, and Arlington said bus access was an average of 0.3 miles away and a train station was 1.5 miles away on average.

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

- More than a quarter of respondents (28%) 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 (27%) of commuters who had access to HOV lanes used them and half (50%) 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 21 minutes for each one-way trip.

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

- About four in ten respondents (39%) said they knew the locations of Park & Ride lots along their route to work. Of those who knew the locations, 19% said they had used these lots when commuting during the past year. These respondents equate to about seven percent of the regional population. These results were nearly identical to those observed in 2004.

*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” (31%), that they “need car for work” (16%), or that there was “no service available in home/work area” (16%).
- “No service available” was the primary reasons for not using the train (27%). Smaller percentages of commuters said they did not use the train because the train “takes too much time” (22%) 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” (48%). Other reasons were that the commuters had “irregular work schedules” (18%) or “need car for work” (9%).

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

- About a quarter (27%) of 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 (75%).

- About 14% of respondents said their commute was easier than last year. The primary reasons were that the trip was a shorter distance (36%), took less time (26%), or was less congested (27%). 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.

*Respondents considered ease of commuting when making job or home changes.*

- About 17% of respondents said they made a job or home change in the past year. More than one in five of these respondents said they considered a commuting factor, such as the ease or cost of commuting to the new location, when making their location decision and 28% said commute ease was more important than other factors in the decision.

### Awareness of Commute Advertising

*Awareness of commute information advertising remained high, but different messages are recalled than in 2004.*

- Over half (52%) of respondents said they had seen, heard, or read advertising for commuting in the six months prior to the survey and two-thirds of these respondents could cite a specific advertising message. This was approximately the same result as was observed in the 2004 survey.
- Recall of most messages remained the same as in 2004, with some exceptions. Awareness of general rideshare messages, such as “use the bus, train, or Metrorail” increased from 2004, but awareness of Guaranteed Ride Home messages dropped substantially, from 12% in 2004 to six percent in 2007. This is likely due to the absence of GRH advertising in the past year.
- About four in ten respondents who had heard ads could name the sponsor. WMATA was named by 20% as the advertising sponsor and Commuter Connections was named by nine percent.

*Commuter 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. This was the same percentage as was observed in 2004.
- The most persuasive messages appealed to respondents’ personal interest or needs. A third of respondents said they were more likely to consider using an alternative after hearing ads about “saving the environment,” and a quarter who recalled ads for “it saves money,” “it is less stressful,” “use the bus, use Metrorail,” or “Guaranteed Ride Home.”
- Respondents who were using alternative modes were more likely to be influenced by the advertising. More than a third of bus riders, 25% of Metrorail riders, and 21% of carpoolers/vanpoolers said they were likely to consider alternative modes after hearing the ads, compared with 15% of commuters who drove alone.
- About 16% of 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 comprised slightly 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 regional commute service organization.
- More than two-thirds (67%) of respondents who took an 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.*

- About half (51%) of respondents said they knew of a telephone number or web site they could use to obtain commute information. This was slightly higher than the 46% who knew of these resources in 2004 and considerably higher than the 33% of respondents who knew of these resources in 2001
- About 21% of respondents could name a specific number or web site; 11% named a Metro/Wmata phone number or website and two percent named a phone number or website administered by Commuter Connections.

#### *Awareness of Commuter Connections remains high but has fallen since 2004.*

- In 2007, about 55% of all regional commuters said they had heard of an organization in the Washington region called Commuter Connections. This was a decline from the 66% who knew of Commuter Connections in 2004.
- Respondents largely cited services that Commuter Connections actually does provide. About four in ten (39%) respondents said they didn't know specific services, but almost half knew the organization offered either general rideshare information (24%) or help finding a carpool or vanpool partner (22%). These was slightly higher awareness for rideshare assistance compared to 2004, but awareness of the GRH program fell substantially. In 2007, 23% of respondents knew that Commuter Connections sponsored a GRH program, but the percentage had been 40% in 2004.

#### *Most local jurisdiction services are known to at least a quarter of their target commuters.*

- Respondents were asked about local commute assistance services provided in the counties where they lived and worked. Awareness of these programs ranged from 11% to 49% of respondents who were asked the questions. Six of nine programs examined were known to at least a quarter of the target area respondents and four were known to a third or more. Between one and nine percent of the target respondents said they had used these services.

### Commuter Assistance Services Provided by Employers

#### *Availability of worksite commute assistance services is about the same as in 2004.*

- Over half of respondents (54%) said their employers offered one or more alternative mode incentives or support services to employees at their worksites. This is the same percentage as was noted in the 2004 survey.



- The most commonly offered services were Metrochek/transit/vanpool subsidies (33% of employers) and commute information (20% of employers). About one in six respondents said their employers offered preferential parking (16%), services for bikers and walkers (17%), or GRH (12%), again these were essentially the same percentages as were observed in 2004.
- Respondents who worked for federal agencies were most likely to have incentive/support services available (85%), compared with 40-60% 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. And incentives and support services were far more common among respondents who worked in the core area jurisdictions (Alexandria, Arlington, and District of Columbia); eight in ten of these respondents had access to services compared to about half of those in the inner ring (Fairfax, Montgomery, and Prince George's Counties) and four in ten of those in jurisdictions outside these areas.

*Most commuters continue to have free worksite parking.*

- The majority of respondents (65%) said their employers offered free, on-site or off-site parking, about the same percentage as that reported in 2004 (66%) and 2001 (65%).
- Federal agency employees were least likely to have free parking (53%) compared with more than 70% of employees working for private firms and 83% of respondents who worked for state/local governments. Free parking also was much less common in the core area of the region. Only four in ten of respondents who worked in these areas had free parking, compared with at least three-quarters of other respondents.

*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 46% and 40% of employees who had access to these incentives.
- Driving alone was less common for commuters who had access to incentive/support services. Only 62% of commuters with these services drove alone to work, compared with 78% 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 (48%) of respondents who did not have free parking drove alone, compared with 83% of respondents who did have free parking.

Guaranteed Ride Home

*Awareness of GRH has fallen substantially since 2004, but Commuter Connections appears to have a larger share of the GRH market.*

- About a quarter (26%) of regional respondents knew there was a regional GRH program. This was a large decrease from the 59% who said they knew of such a program in 2004.
- Respondents who primarily used commuter rail were much more likely to know about GRH than were other respondents. Awareness of the program was similar for users of other modes.

- Two percent of respondents said they registered for or used a GRH service within the past two years. About a third (37%) noted Commuter Connections as the sponsor, an increase over the 21% who named Commuter Connections in 2004 and the 13% who mentioned Commuter Connection in 2001.

### New Regional Commute Program Concepts

#### *One in six respondents was interested in internet ridematching.*

- Fifteen percent of respondents said they would be interested in using a self-service internet-based ridematching system to find a carpool or vanpool partner. Of those who were not interested, the primary reasons were that they did not want to carpool or vanpool (53%) or that they could not carpool or vanpool due to personal circumstances (38%).
- More than half of respondents who were interested in the service said they would be willing to provide an email address and a quarter said they would provide a phone number.

#### *One in five drive alone respondents would consider carpooling to receive a \$50 monthly gift card.*

- Fifteen percent of respondents who drove alone full-time said they would definitely or probably try carpooling to receive a \$25 monthly gift card that they could use at area merchants. When the value of the card was increased to \$50, the percent who were interested increased to 19%.

### Kiosks

#### *Information kiosks offer commuters an additional outlet for transportation information.*

- About one in ten (11%) respondents said they had seen a transportation information kiosks in the Washington area. Of these respondents, one in seven (14%), 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 (51%) and maps and guides (19%).
- More than a quarter (26%) of respondents who had used a kiosk said the information had influenced their decision to try a new alternative mode.
- About 66% 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 2007 SOC Results with 2004 and 2001 SOC Results

## APPENDIX A – SURVEY DATA EXPANSION

Survey responses from the State of the Commute 2007 were expanded numerically to align the sampled survey results with published, employment information for the study area. The process developed for the 11-area, Washington, DC metropolitan region is described below in detail.

Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics (LAUS) for January – March, 2007 were used to expand responses to employed persons. This methodology is the same as the method used for the 2004 State of the Commute. Additionally, interviews were tested for bias for the distribution of race/ethnicity. As a result, the distribution for race/ethnicity was adjusted for three jurisdictions.

**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 – 2007) | Working HH Sample (# Surveyed) | Rounded Worker Expansion Factor | Total Worker Estimates |
|------------------------|--|--------------------------------|---------------------------------|------------------------|
| Alexandria City, VA    | 86,287   | 600                            | 144                             | 86,400                 |
| Arlington Co., VA      | 125,917  | 600                            | 210                             | 126,000                |
| Calvert Co., MD        | 45,901   | 600                            | 77                              | 46,200                 |
| Charles Co., MD        | 72,521   | 603                            | 120                             | 72,360                 |
| District of Columbia   | 299,246  | 600                            | 499                             | 299,400                |
| Fairfax Co., VA        | 578,691  | 601                            | 963                             | 578,763                |
| Frederick Co., MD      | 120,628  | 602                            | 200                             | 120,400                |
| Loudoun Co., VA        | 150,207  | 603                            | 249                             | 150,147                |
| Montgomery Co., MD     | 505,685  | 600                            | 843                             | 505,800                |
| Prince George's, MD    | 436,397  | 600                            | 727                             | 436,200                |
| Prince William Co., VA | 192,829  | 601                            | 321                             | 192,921                |
| Total                  | 2,614,309  | 6,610                          |                                 | 2,614,591              |

Estimates of employed workers were obtained from BLS for each jurisdiction in the study area for the first quarter of 2007, 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 Montgomery County, MD, the BLS estimate of 505,685 workers is divided by 600 surveys to obtain a representation of 843 workers per complete survey. When 843 is multiplied by 600 surveys, the resulting estimate of 505,800 workers is produced for Montgomery County, MD.

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 46,200 workers in Calvert County would have the same representation as the estimated 578,763 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 2004 analysis, the distribution for race/ethnicity was compared with published statistics. This was particularly important for the District of Columbia, where the survey distribution of ethnicity was shown to be skewed. All 11 jurisdictions were tested using the Chi Squared test. In addition to the District of Columbia, Alexandria City, VA, Arlington County, VA, and Fredrick County, MD were found to be significantly different than the published distribution.

The population distribution from the U.S. Census Bureau, Census 2000 Redistricting Data (P.L. 94-171) Summary File, Table 1 “Population by Race and Hispanic or Latino Origin for 18 Years and Over” was used for the bias adjustment. Although not an identical match, the 18 years and over population data allowed an acceptable comparison for workers 16 years and over from the survey.

The results after adjusting for race/ethnicity are shown in Table A-2. Expansion factors applied to survey results reflect the U.S. Census race/ethnicity distribution after the bias adjustment. Non-response for the race/ethnicity question is distributed in the same proportion as the valid percent.

Table A-2 – Bias Adjustment Factor

| <b>Survey Area</b>   | <b>Hispanic</b> | <b>White</b> | <b>African-American</b> | <b>All Others</b> |
|----------------------|-----------------|--------------|-------------------------|-------------------|
| Alexandria City, VA  | 234             | 110          | 242                     | 302               |
| Arlington Co., VA    | 315             | 171          | 354                     | 392               |
| District of Columbia | 475             | 324          | 710                     | 623               |
| Frederick Co., MD    | 74              | 211          | 245                     | 116               |

The integer portion of the expansion factor is used. After adjustment, the working households are redistributed to more accurately reflect the ethnicity of the area.

### 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 2007 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

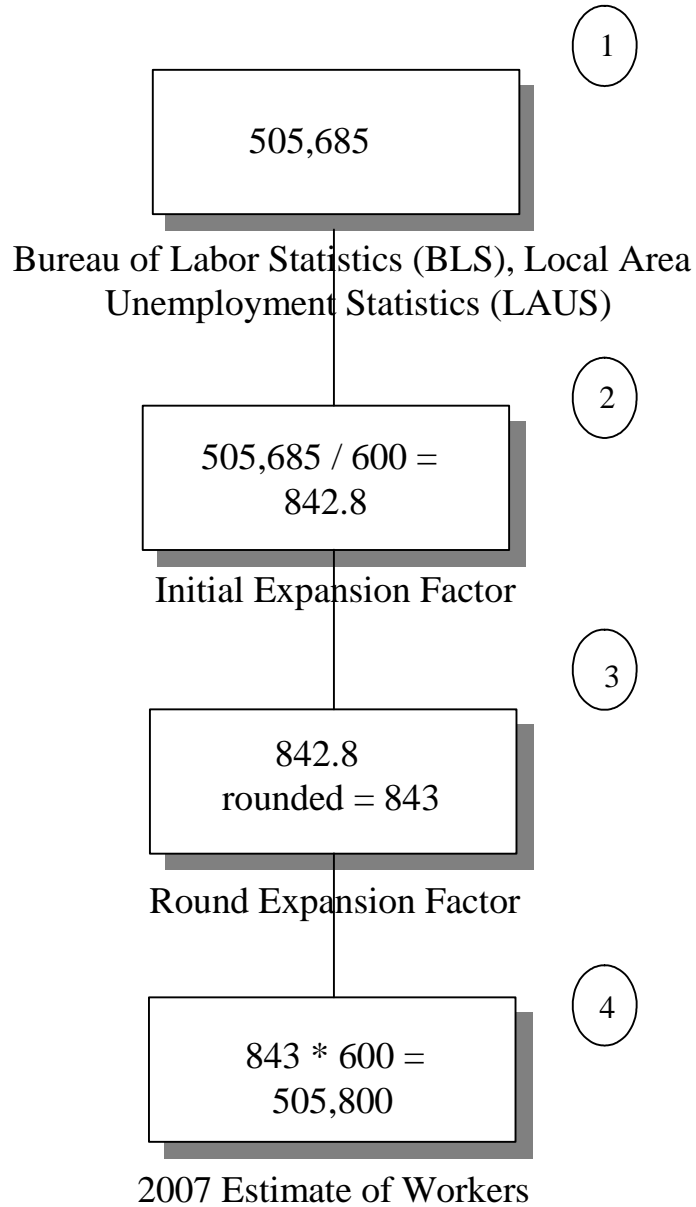
| <b>Sub-Area or Sub-Population</b>   | <b>Sample Size</b> | <b>Level of Confidence</b> |
|-------------------------------------|--------------------|----------------------------|
| <b><i>Geographic Sub-Areas</i></b>  |                    |                            |
| Study Region – Eleven Areas         | 6,610              | 95% ± 1.2%                 |
| Study Portion of Virginia           | 3,005              | 95% ± 1.8%                 |
| Study Portion of Maryland           | 3,005              | 95% ± 1.8%                 |
| District of Columbia                | 600                | 95% ± 4.0%                 |
| Individual County or City Level     | 600                | 95% ± 4.0%                 |
| <b>Sub-Area or Sub-Population</b>   | <b>Sample Size</b> | <b>Level of Confidence</b> |
| <b><i>Sub-Populations</i></b>       |                    |                            |
| Telecommuters                       | 1,134              | 95% ± 2.9%                 |
| Carpoolers (with casual)/Vanpoolers | 520                | 95% ± 4.3%                 |
| Transit Users                       | 1,038              | 95% ± 3.0%                 |
| Bike Users or Walkers               | 183                | 95% ± 7.2%                 |
| Kiosk Users                         | 85                 | 95% ± 10.6%                |
| Commuters Aware of GRH              | 1,646              | 95% ± 2.4%                 |

### 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 and Alexandria City, VA, Arlington County, VA, the District of Columbia, and Fredrick County, MD were adjusted for race bias in sampling.

# EXPANSION FOR WORKING HOUSEHOLDS

## Example: Montgomery County, MD



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<sup>1</sup> Estimate of employment January - March, 2007

<sup>2</sup> Initial expansion factor per SOC 2007 survey

<sup>3</sup> Rounded expansion factor = 843

<sup>4</sup> Final Estimate of Workers in Montgomery County, Md

**APPENDIX B – STATE OF THE COMMUTE 2007  
FINAL DIALING DISPOSITION**

|               |                             | <b>Total<br/>Count</b> |
|---------------|-----------------------------|------------------------|
| New<br>Result | Answering Machine           | 10,960                 |
|               | No Answer                   | 21,187                 |
|               | Call Backs                  | 1,663                  |
|               | Busy                        | 4,673                  |
|               | Over quota                  | 90                     |
|               | <b>Total Lives</b>          | <b>38,573</b>          |
|               | Not in service              | 28,160                 |
|               | Business                    | 7,577                  |
|               | Fax                         | 9,518                  |
|               | Refusals                    | 16,814                 |
|               | Other language              | 1,061                  |
|               | Terminates during interview | 778                    |
|               | Terminates – screened out   | 5,610                  |
|               | Never available             | 509                    |
|               | Blocked Number              | 3,713                  |
|               | <b>Total Deads</b>          | <b>73,740</b>          |
|               | <b>Total Completes</b>      | <b>6,610</b>           |
|               | <b>Total Sample</b>         | <b>118,923</b>         |

Total Dialings: 411,449

Average Number of Dialings per Complete: 62.2



## Disposition by Jurisdiction Table

| Final Disposition            | Alexandria City | Arlington     | Calvert      | Charles       | District of Columbia | Fairfax County | Frederick    | Loudoun      | Montgomery   | Prince George's | Prince William | Total          |
|------------------------------|-----------------|---------------|--------------|---------------|----------------------|----------------|--------------|--------------|--------------|-----------------|----------------|----------------|
| <b>LIVES</b>                 |                 |               |              |               |                      |                |              |              |              |                 |                |                |
| Answering Machine            | 395             | 573           | 902          | 1,576         | 1,074                | 762            | 1,143        | 775          | 1,299        | 1,325           | 1,136          | 10,960         |
| No Answer                    | 2,421           | 2,596         | 1,044        | 1,916         | 3,294                | 1,428          | 1,574        | 1,731        | 1,528        | 2,290           | 1,365          | 21,187         |
| Call Backs                   | 76              | 52            | 193          | 282           | 133                  | 49             | 198          | 188          | 43           | 210             | 239            | 1,663          |
| Busy                         | 289             | 537           | 64           | 275           | 619                  | 296            | 513          | 502          | 480          | 645             | 453            | 4,673          |
| Over Quota                   | 12              | 20            | 3            | 7             | 4                    | 4              | 7            | 6            | 3            | 8               | 16             | 90             |
| <b>Total Lives</b>           | <b>3,193</b>    | <b>3,778</b>  | <b>2,206</b> | <b>4,056</b>  | <b>5,124</b>         | <b>2,539</b>   | <b>3,435</b> | <b>3,202</b> | <b>3,353</b> | <b>4,478</b>    | <b>3,209</b>   | <b>38,573</b>  |
| <b>DEADS</b>                 |                 |               |              |               |                      |                |              |              |              |                 |                |                |
| Not in Service               | 3,579           | 2,852         | 2,144        | 4,118         | 2,981                | 2,312          | 1,782        | 1,590        | 2,164        | 2,818           | 1,820          | 28,160         |
| Business/Fax                 | 1,844           | 1,650         | 1,222        | 1,839         | 2,185                | 1,352          | 1,305        | 1,486        | 1,432        | 1,691           | 1,089          | 17,095         |
| Refusals                     | 1,282           | 1,350         | 1,797        | 2,288         | 1,432                | 1,132          | 1,600        | 1,379        | 1,344        | 1,811           | 1,399          | 16,814         |
| Other Language               | 132             | 133           | 27           | 59            | 96                   | 143            | 30           | 103          | 128          | 121             | 89             | 1,061          |
| Terminate - During interview | 67              | 55            | 68           | 80            | 76                   | 74             | 64           | 61           | 82           | 82              | 69             | 778            |
| Terminate - Screened out     | 402             | 464           | 557          | 1,009         | 645                  | 355            | 459          | 326          | 454          | 574             | 365            | 5,610          |
| Never Available              | 41              | 45            | 48           | 68            | 53                   | 34             | 35           | 52           | 43           | 74              | 16             | 509            |
| Blocked Number               | 185             | 166           | 395          | 817           | 374                  | 193            | 280          | 274          | 256          | 730             | 43             | 3,713          |
| <b>Total Deads</b>           | <b>7,532</b>    | <b>6,715</b>  | <b>6,258</b> | <b>10,278</b> | <b>7,842</b>         | <b>5,595</b>   | <b>5,555</b> | <b>5,271</b> | <b>5,903</b> | <b>7,901</b>    | <b>4,890</b>   | <b>73,740</b>  |
| <b>Total Completes</b>       | <b>600</b>      | <b>600</b>    | <b>600</b>   | <b>603</b>    | <b>600</b>           | <b>601</b>     | <b>602</b>   | <b>603</b>   | <b>600</b>   | <b>600</b>      | <b>601</b>     | <b>6,610</b>   |
| <b>Total Sample</b>          | <b>11,325</b>   | <b>11,093</b> | <b>9,064</b> | <b>14,937</b> | <b>13,566</b>        | <b>8,735</b>   | <b>9,592</b> | <b>9,076</b> | <b>9,856</b> | <b>12,979</b>   | <b>8,700</b>   | <b>118,923</b> |

**APPENDIX C – SURVEY QUESTIONNAIRE**

**Greater Washington, D.C., State of the Commute Survey – FY07**

V11 – 2/5/07 – Changes after Pre-test

**INTRODUCTION**

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

**SCREENING QUESTIONS**

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

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

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

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

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

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

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

**EMPLOYMENT STATUS AND HOME/WORK LOCATION**

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

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

1a What is your home zip code?

\_\_\_\_\_

**AUTOCODE COUNTY FOR CHANTILLY**

IF Q1a = 20151, AUTOCODE Q2 = 6 (Fairfax), THEN SKIP TO Q3

IF Q1a = 20152, AUTOCODE Q2 = 8 (Loudoun), THEN SKIP TO Q3

**AUTOCODE ALEXANDRIA (EXCEPT 22311)**

IF Q1a = 22301, 22302, 22304, 22305, OR 22314, AUTOCODE Q2 = 1 (Alexandria), THEN SKIP TO Q3

IF Q1a = 22303, 22306, 22307, 22308, 22309, 22310, OR 22315, AUTOCODE Q2 = 6 (Fairfax), THEN SKIP TO Q3

**AUTOCODE TAKOMA PARK, MD, TAKOMA DC**

IF Q1a = 20903, 20910, 20912, 20913, AUTOCODE Q2 = 9 (Montgomery), THEN SKIP TO Q3

IF Q1a = 20011 OR 20012, AUTOCODE Q2 = 5 (DC), THEN SKIP TO Q3

**AUTOCODE LAUREL**

IF Q1a = 20707 OR 20708, AUTOCODE Q2 = 10 (Prince Georges), THEN SKIP TO Q3

IF Q1a = 20723 OR 20724, AUTOCODE Q2 = 12 (Other –out of area), THEN THANK AND TERMINATE

AUTOCODE SILVER SPRING (EXCEPT 20903)

IF Q1a = 20901, 20902, 20904, 20905, 20906, OR 20910, AUTOCODE Q2 = 9, THEN SKIP TO Q3

AUTOCODE STERLING

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

AUTOCODE FAIRFAX AND FALLS CHURCH CITIES

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

AUTOCODE WALDORF (EXCEPT Q20601)

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

AUTOCODE MANASSAS, MANASSAS PARK

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

IF Q1a = ANY OTHER ZIP CODE, ASK Q2

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

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

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

3 In what county (or independent city) do you work? **(IF "ALL OVER", ASK: Where do you work the most?)**

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

## COMMUTE PATTERNS

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

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

\_\_\_\_\_ days  
\_\_\_\_ "0", not currently working (**GO BACK TO QS5**)

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

\_\_\_\_\_ days  
\_\_\_\_ "0", (**CODE AS WKALL, THEN SKIP TO Q57**)

6 And how many weekdays do you commute to a work location outside your home? (**IF RESPONDENT SAYS, "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**)

7 At what time do you usually arrive at work? (**DO NOT READ**)

- 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

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

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

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

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

10 Do you telecommute every weekday you work?

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

- 11 Do you work a compressed or flexible work schedule, for example, a full-time work week in fewer than five days or a schedule with flexible start and end times?
- 1 yes (**CONTINUE**)
  - 2 no (**SKIP TO Q13**)
- 12 What type of schedule do you use? (**DO NOT READ, UNLESS NEEDED TO CLARIFY**)
1. 4/40 (4 10-hour days per week, 40 hours)
  2. 9/80 (9 days every 2 weeks, 80 hours)
  3. 3/36 (3 12-hour days per week, 36 hours - police, fire, hospitals)
  4. flex-time or flexible work hours (core hours with flexible start & stop)
  5. Work 5 or more days per week, 35 or more hours per week (RECODE Q11 = 2)
  6. other (SPECIFY) \_\_\_\_\_

**INSTRUCTIONS BEFORE Q13**

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

- 13 Now I want to ask you about telecommuting, also called teleworking. For purposes of this survey, “telecommuters” are defined as “wage and salary employees who at least occasionally work at home or at a telework or satellite center during an entire work day, instead of traveling to their regular work place.” Based on this definition, are you a telecommuter?
- 1 yes
  - 2 no (**SKIP TO Q14a**)
  - 9 DK/Ref (**SKIP TO Q14a**)

- 13a Does your employer have a formal telecommuting program at your workplace or do you telecommute under an informal arrangement between you and your supervisor?
- 1 formal program
  - 2 informal arrangement
  - 3 N/A
  - 9 DK/Ref

**IF TELEALL AND Q5 = 1, AUTOCODE Q14 = 4, THEN SKIP TO INSTRUCTIONS BEFORE Q15**

**IF TELEALL AND Q5 = 2, AUTOCODE Q14 = 5, THEN SKIP TO INSTRUCTIONS BEFORE Q15**

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

- 14 How often do you usually telecommute? (**DO NOT READ**)
- 1 occasionally for special project
  - 2 Less than one time per month/only in emergencies (e.g., sick child, snowstorm)
  - 3 1-3 times a month
  - 4 one day a week
  - 5 two days a week
  - 6 3 or more times a week
  - 7 other (**SPECIFY**) \_\_\_\_\_
  - 9 DK/Ref.

**SKIP TO Q15**

- 14a Do you at least occasionally work at home or at a location other than your central work place during your normal work hours? (**IF ASKED:** Normal work hours means the hours that you work, which may or may not be the normal business hours of your employer.)
- 1 yes
  - 2 no (**SKIP TO Q14d**)
  - 9 DK/Ref (**SKIP TO Q14d**)

14b On these days, where do you typically work? (DO NOT READ RESPONSES)

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

14c How often do you usually work at this or these locations? (DO NOT READ)

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

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

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

**IF Q14a = 1, AUTOCODE Q14e = 1, THEN SKIP TO Q14f**

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

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

**IF Q14c = 1, 2, 3, OR 7, AUTOCODE Q14f = 1, THEN SKIP TO Q15**

**IF Q14c = 4, 5, OR 6, AUTOCODE Q14f = 2, THEN SKIP TO Q15**

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

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

### **CURRENT COMMUTE PATTERNS**

#### **INSTRUCTIONS BEFORE Q15**

IF HOMEALL FROM Q9, DON'T ASK Q15. AUTO FILL Q15, RESPONSE 18 = Q5, THEN SKIP TO Q61

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

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

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

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

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

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

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

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

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

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

Number of minutes \_\_\_\_\_

Time varies \_\_\_\_\_

888 Don't know

999 Refuse



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

Number of miles \_\_\_\_\_

888 Don't know

999 Refuse

**USE OF ALTERNATIVE MODES**

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

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

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

**CODE MONTHS FOR EACH MODE CURRENTLY USED**

**IF LESS THAN ONE MONTH, CODE 1 MONTH**

**IF RESPONDENT SAYS "always used" OR "only used" FOR ANY <MODE Q15>, CODE MONTHS AS 666.**

**IF RESPONDENT SAYS, "don't know" FOR ANY <MODE Q15>, CODE MONTHS AS 999**

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

**DEFINE RECENT MODE = Q18 MODE WITH FEWEST MONTHS**

**IF TIE FOR RECENT MODE, DESIGNATE BOTH MODES AS RECENT MODE**

**IF Q18 = 666 FOR RECENT MODE, AUTOCODE Q19a = 20, THEN SKIP TO Q20**

19a Before starting to <RECENT MODE Q15> to work, what type or types of transportation did you use to get to work? (**ALLOW MULTIPLE MODES 1 – 15, 19. DO NOT ACCEPT MULTIPLES FOR 16, 17, 18, 20, 21 OR 99**)

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

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

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

20 What were the reasons you began using <RECENT MODE Q15>? (**DO NOT READ; CHECK ALL THAT APPLY**) (**Probe for the 3 most important and only record 3**)

Personal circumstances/preferences

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

Commuter Services/Programs

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

Information/Promotion

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

- 88 Don't know
- 99 Refuse

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

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

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

- 1 compressed work schedule day off
- 2 telecommute
- 3 drive alone
- 4 motorcycle
- 5 carpool, including carpool with family member, dropped off
- 6 casual carpool (slugging)
- 7 vanpool
- 8 buspool
- 9 bus
- 10 Metrorail
- 11 MARC
- 12 VRE
- 13 AMTRAK, other train
- 14 bicycle
- 15 walk
- 16 N/A
- 17 N/A
- 18 N/A
- 19 taxi
- 20 N/A
- 21 N/A
- 99 don't know, refused

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

\_\_\_\_\_ months (**CONVERT YEARS TO MONTHS**)  
0 less than one month  
888 occasionally (tried one, emergency use)  
999 still using (**ASK Q25**)  
-997 Don't know

**SET Q23LONG = Q24, LONGEST DURATION**

**IF Q24 = STILL USING FOR ANY MODE, THAT MODE = Q23 LONG**

**IF Q24 = 888 (occasionally) FOR ANY MODE, THAT MODE = Q23LONG, UNLESS RESPONDENT MENTIONED BOTH OCCASIONAL MODE AND OTHER MODE, THEN USE OTHER MODE**

**SKIP TO Q26**

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

\_\_\_\_\_ DAYS PER MONTH  
**99 don't know, refused**

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

Personal circumstances/preferences

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

Commute Services/Programs

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

Information/Promotion

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

- 88 Don't know
- 99 Refuse

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

27 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**

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

\_\_\_\_\_ total people in pool (must be more than 1)

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

- 29 How do you get from home to where you meet your <Q15 ALT MODE: carpool, vanpool, buspool, bus, or train>?
- 1 picked up at home by car/van pool (**SKIP TO INSTRUCTIONS BEFORE Q34**)
  - 2 drive alone to driver's home or drive alone to passenger's home
  - 3 drive to a central location, like park & ride, or train or subway station
  - 4 dropped off or another car/van pool
  - 5 bicycle
  - 6 motorcycle
  - 7 walk
  - 8 I am the driver of car pool/van pool (**SKIP TO INSTRUCTIONS BEFORE Q34**)
  - 9 bus/transit
  - 10 other (**SPECIFY**) \_\_\_\_\_
- 30 How many miles is it one way from your home to where you meet your <Q15 ALT MODE: carpool, vanpool, buspool, bus, or train>? (**IF LESS THAN 1 MILE, ENTER 0.5**)
- \_\_\_\_\_ miles

## TELECOMMUTE

### INSTRUCTIONS BEFORE Q34

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

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

- 34 How long have you been telecommuting?
- \_\_\_\_\_ months (CONVERT YEARS TO MONTHS)  
999 Don't know/refused

### IF TELEALL, AUTOCODE Q36 = 1, THEN SKIP TO Q40

- 36 Where do you work when you telecommute? Do you work at home, in a telework center, a satellite office provided by your employer, or someplace else? (**IF NECESSARY:** Telework Centers are federally funded facilities located around the Washington area that allow government and non-government employees to work closer to home some or all of the time.)
- 1 Home (**SKIP TO Q40**)
  - 2 Telework Center
  - 3 Both home and Telework Center
  - 4 Satellite office provided by employer
  - 5 Both home and satellite office
  - 6 Business service center (Kinkos) or other "retail" location
  - 7 Both home and business service center (Kinkos) or other "retail" location
  - 8 Library or community center
  - 9 Both home and library or community center
  - 10 Executive office suites
  - 11 Both home and executive office suites
  - 12 other location (**SPECIFY**) \_\_\_\_\_

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

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

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

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

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

40 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 INTRO TO Q44)
- 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

**IF Q40 = 5, AUTOCODE Q42 = 1, THEN INSERT "advertising" AS <Q40 REASON> IN Q42**

**IF Q40 = 6, AUTOCODE Q42 = 2, THEN INSERT "a special program at work" as <Q40 REASON> IN Q42**

**IF Q40 = 13, AUTOCODE Q42 = 4, THEN INSERT "information from Commuter Connections or the Council of Governments" AS <Q40 REASON> IN Q42**

42 **IF ANY RESPONSES AUTOCODED IN Q42, ASK,** "You mentioned <Q40 REASON> as a reason you started to telecommute. Did you learn about telecommuting from any other source?"

**IF NO RESPONSES AUTOCODED IN Q42, ASK,** "How did you find out about telecommuting?" (DO NOT READ)

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

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

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

- 1 yes (SKIP TO **INTRO BEFORE Q44**)
- 2 no
- 9 DK/Ref

#### **AVAILABILITY OF TRANSPORTATION OPTIONS**

**IF TELEALL, SKIP TO Q61**

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

44 Regardless of whether or not you use them, what train or bus companies provide service in the area where you live? (**DO NOT READ; PROBE WELL FOR BOTH BUS AND TRAIN; ACCEPT MULTIPLE RESPONSES FOR 2-12 AND FOR 14-19**)

##### Buses

- 1 No buses provide service (DO NOT ALLOW MULTIPLES WITH 2-12)
- 2 Alexandria DASH
- 3 Fairfax Connector
- 4 Fairfax Cue
- 5 Loudoun Commuter Bus
- 6 Metrobus
- 7 MTA bus
- 8 Omni Ride
- 9 Ride On
- 10 "The Bus"
- 11 TransIT Bus
- 12 Bus (PROBE FOR NAME) \_\_\_\_\_

##### Train

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



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

Number of miles \_\_\_\_\_

Number of blocks \_\_\_\_\_

999 Don't know

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

Number of miles \_\_\_\_\_

Number of blocks \_\_\_\_\_

999 Don't know

44c What train or bus companies provide service in the area where you work? (DO NOT READ; PROBE FOR BOTH BUS AND TRAIN, ALLOW MULTIPLE RESPONSES FOR 2-12 AND FOR 14-19)

Buses

1 No buses provide service (DO NOT ALLOW MULTIPLES WITH 2-12)

2 Alexandria DASH

3 Fairfax Connector

4 Fairfax Cue

5 Loudoun Commuter Bus

6 Metrobus

7 MTA bus

8 Omni Ride

9 Ride On

10 "The Bus"

11 TransIT Bus

12 Other Bus (PROBE FOR NAME) \_\_\_\_\_

Trains

13 No trains provide service (DO NOT ALLOW MULTIPLES WITH 14-18)

14 AMTRAK/ACELA

15 MARC (Maryland commuter rail)

16 MetroRail/subway

17 Virginia Railway Express (VRE)

18 Other Train (PROBE FOR NAME) \_\_\_\_\_

19 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, AUTOCODE Q47 = 2, THEN SKIP TO Q54**

47 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)

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

\_\_\_\_\_ minutes

999 DK/Ref.

- 51 Did the HOV lane influence your decision to use your current way of commuting?
- 1 Yes
  - 2 No
  - 9 Refused/Don't know
- 52 Do you know the locations of Park 'n Ride lots along the route that you take to work?
- 1 yes
  - 2 no (**SKIP TO INSTRUCTIONS BEFORE Q54**)
  - 3 there aren't any (**SKIP TO INSTRUCTIONS BEFORE Q54**)
  - 8 Don't know (**SKIP TO INSTRUCTIONS BEFORE Q54**)
  - 9 Refuse (**SKIP TO INSTRUCTIONS BEFORE Q54**)
- 53 In the past year have you used Park 'n Ride lots when commuting to work?
- 1 yes
  - 2 no
  - 9 DK/Ref.

#### ATTITUDES TOWARD TRANSPORTATION MODES

##### INSTRUCTIONS BEFORE Q54

If Q15 = 8, 9 **OR** Q29 = 9, **SKIP TO Q55**

If Q23 = 8, 9 **AND** Q24 = 999 (still using), **SKIP TO Q55**

If Q44 = 1 **OR** Q44c = 1, **AUTOCODE Q54 = 1 AND AUTOCODE Q55 = 1, THEN SKIP TO Q56**

- 54 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), SKIP TO Q56**

**If Q23 = 10, 11, 12, 13 AND Q24 = 999 (still using), SKIP TO Q56**

55 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 Q29 = 1, 4, OR 8 SKIP TO Q57**

**If Q23 = 5, 6, 7 AND Q24 = 999 (still using), SKIP TO Q57**

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

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

#### **CURRENT COMMUTE COMPARED TO LAST YEAR**

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

- 1 easier (**ASK Q58**)
- 2 more difficult (**ASK Q59**)
- 3 about the same (**SKIP TO Q60**)
- 4 not applicable (**SKIP TO Q60**)
- 9 DK/Ref (**SKIP TO Q60**)

58 In what way is it easier?

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

59 In what way is it more difficult?

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

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

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

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

- 1 Yes
- 2 No
- 9 DK/Refused

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

Commute Factors

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

Residential Factors

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

Job Factors

- 11 Income, salary
- 12 Job satisfaction
- 13 Career advancement
- 14 Job opportunities for spouse
  
- 15 Other (SPECIFY) \_\_\_\_\_
- 19 DK/Refused

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

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

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

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

- 1 Yes
- 2 No
- 9 DK/Refused

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

- 1 Yes
- 2 No
- 9 DK/Refused

**AWARENESS OF ADVERTISING**

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

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

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

- 1 none (**SKIP TO Q81**)
- 2 that you should rideshare, carpool, vanpool) (**NOT ACCEPTABLE ANSWER; PROBE FOR WHY AND RECORD ELSEWHERE**)
- 3 that new trains and/or buses are coming
- 4 that you can call for carpool or vanpool info
- 5 call 1-800-745-RIDE / call Commuter Connections
- 6 Commuter Choice Maryland
- 7 contact the Commuter Connections website (www.commuterconnections.org, www.commuterconnections.com)
- 8 it saves money
- 9 it saves time
- 10 it is less stressful
- 11 guaranteed ride home (GRH)
- 12 employer would give me MetroChek benefits, SmartTrip benefits
- 13 it would help the environment
- 14 it reduces traffic
- 15 it saves wear and tear on the car
- 16 Ozone Action Days / Code Red Days
- 17 Telework Center / telecommuting
- 18 HOV lanes
- 19 regional services/programs are available to help with commute
- 20 Springfield interchange reconstruction
- 21 Wilson bridge reconstruction, Bridge Bucks
- 22 use the bus or train, use Metrobus
- 23 Way to Go, Way to Go Arlington
- 24 other (SPECIFY) \_\_\_\_\_
- 99 DK/Ref. (**SKIP TO Q81**)

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

- 1 Commuter Connections
- 2 Metropolitan Washington Council of Governments, MWCOG, COG
- 3 Metro, WMATA
- 4 MARC, Maryland Commuter Rail
- 5 VRE, Virginia Railway Express
- 6 VDOT (Virginia Department of Transportation)
- 7 DDOT (District of Columbia Department of Transportation)
- 8 MDOT (Maryland Department of Transportation)
- 9 VDRPT, Virginia Department of Rail and Public Transportation
- 10 Maryland State Highway Administration
- 11 MTA, Maryland Mass Transit Administration
- 12 Maryland Department of the Environment
- 13 WABA, Washington Area Bicycling Association
- 14 Arlington County Commuter Services
- 15 other (specify) \_\_\_\_\_
- 99 DK/Ref.

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

- 1 Commuter Connections website
- 2 other website, internet (specify \_\_\_\_\_)
- 3 radio
- 4 TV
- 5 postcard in mail
- 6 newspaper
- 7 in train station
- 8 on train or bus
- 9 at work
- 10 other (\_\_\_\_\_)
- 19 DK/Ref.

**IF HOMEALL, SKIP TO Q81**

**IF TELEALL, SKIP TO Q81**

**IF WKALL, SKIP TO Q81**

Attitude changes/actions taken after hearing ads

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

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

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

No action

- 1 didn't take any action (**SKIP TO Q81**)

Sought information

- 2 looked for commute information on the internet
- 3 asked friend, family member, or co-worker for commute information (referral)
- 4 contacted a local or regional organization for commute information
- 5 looked for a carpool or vanpool partner
- 6 called a transit operator to ask about schedules or routes
- 7 asked employer about telecommuting opportunities
- 8 asked employer about 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 Q81**)
  
- 99 DK/Ref (**SKIP TO Q81**)

*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**

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

Personal circumstances/preferences

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



Commuter Services/Programs

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

Information/Promotion

- 35 advertising
  - 36 initiated request/looked for information on my own
  - 37 info. From Commuter Connections/Council of Governments/COG/800 number
  - 38 Commuter Connections Website
  - 39 other Website
  - 40 word of mouth/recommendation
  - 41 information from transit agency
  - 42 saw highway sign
  - 43 yellow pages, phone book
  - 44 Other \_\_\_\_\_
  - 88 Don't know
  - 99 Refused
- 

**IF Q67 = 35 (advertising), CODE Q68 = 1, DO NOT ASK Q68**

68 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**

69 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**

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

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

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

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

*Autofill mode duration for respondents currently using alternative mode (Q15) named in Q66*

**IF Q66 EQ 19 AND Q15 = 5 OR 6, AUTOFILL Q71 = "still using," THEN SKIP TO Q72a**

**IF Q66 EQ 20 AND Q15 = 7, AUTOFILL Q71 = "still using," THEN SKIP TO Q72a**

**IF Q66 EQ 21 AND Q15 = 8 OR 9, AUTOFILL Q71 = "still using," THEN SKIP TO Q72a**

**IF Q66 EQ 22 AND Q15 = 10, 11, 12, 13, AUTOFILL Q71 = "still using," THEN SKIP TO Q72a**

**IF Q66 EQ 23 AND Q15 = 14,15, AUTOFILL Q71 = "still using," THEN SKIP TO Q72a**

**IF Q66 EQ 24 AND Q15 = 2, AUTOFILL Q71 = "still using," THEN SKIP TO Q72a**

*Autofill duration for respondents who tried alt mode named in Q66 in past two years (Q23)*

**IF Q66 = 19 AND Q23 = 5 OR 6, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72a**

**IF Q66 = 20 AND Q23 = 7, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72a**

**IF Q66 = 21 AND Q23 = 8 OR 9, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72a**

**IF Q66 = 22 AND Q23 = 10, 11, 12, OR 13, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72a**

**IF Q66 = 23 AND Q23 = 14 OR 15, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72a**

**IF Q66 = 24 AND Q23 = 2, ANY DAY, AUTOFILL Q71 = Q24, THEN ASK Q72a**

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

\_\_\_\_\_ months (**CONVERT YEARS TO MONTHS**)

\_\_\_\_\_ less than one month

\_\_\_\_\_ occasionally (tried one, emergency use) (**SKIP TO Q81**)

\_\_\_\_\_ still using

999 DK/Ref.

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

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

**FOR EACH MODE MENTIONED IN Q72a, ASK...**

72b About how many days per week did you use <MODE FROM Q72a>?

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

**IF 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 at that time?"**

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

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

#### AWARENESS OF COMMUTE PROGRAMS/SERVICES

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

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

- 1 Yes
- 2 No (**ASK Q86**)
- 9 DK/Ref (**ASK Q86**)

83 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. 301-770-POOL  | Montgomery County Commuter Services              |
| 5. 240-777-RIDE  | Montgomery County Commuter Services              |
| 6. 202-637-7000  | METRO (Washington Metro. Area Transit Authority) |
| 7. <a href="http://www.mwcog.org">www.mwcog.org</a>                                    | Commuter Connections (COG)                       |
| 8. <a href="http://www.commuterconnections.org">www.commuterconnections.org</a>        | Commuter Connections (COG)                       |
| 9. <a href="http://www.commuterconnections.com">www.commuterconnections.com</a>        | Commuter Connections (COG)                       |
| 10. <a href="http://www.vre.org">www.vre.org</a>                                       | Virginia Railway Express (VRE)                   |
| 11. <a href="http://www.commuterdirect.com">www.commuterdirect.com</a>                 | Arlington County Commuter Services               |
| 12. <a href="http://www.commuterpage.com">www.commuterpage.com</a>                     | Arlington County Commuter Services               |
| 13. 703-228-RIDE   | Arlington County Commuter Services               |
| 14. <a href="http://www.springfieldinterchange.com">www.springfieldinterchange.com</a> | Springfield Interchange (VDOT)                   |
| 15. <a href="http://www.maryland.com">www.maryland.com</a>                             | Maryland Mass Transit Admin. (MTA)               |
|  | MARC Commuter Rail                               |
| 16. <a href="http://www.wmata.com">www.wmata.com</a>                                   | WMATA, Metro                                     |
| 17. <a href="http://www.HOVcalculator.com">www.HOVcalculator.com</a>                   | VDOT   |
| 18. <a href="http://www.commuterchoicemaryland.com">www.commuterchoicemaryland.com</a> | Commuter Choice Maryland                         |
| 19. 866-RIDE-MTA (1-800-743-3682)  |  |
| 20. Other (SPECIFY) _____  |  |

84 Have you used this number or website 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, 14, SKIP TO Q86**

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

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

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

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

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

87 How did you learn about Commuter Connections? **(DO NOT READ; ACCEPT MULTIPLE RESPONSES)**

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

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

- 1 guaranteed ride home
- 2 rideshare (carpool/vanpool) information
- 3 help finding carpool/vanpool partners, matchlists
- 4 transit schedule/route information
- 5 HOV lane information
- 6 park & ride lot information, parking information
- 7 telecommute information
- 8 bicycle/walking information
- 9 road construction information
- 10 kiosks, InfoExpress
- 11 Metrochek, SmartTrip
- 12 other (specify) \_\_\_\_\_
- 88 don't know
- 99 Refuse

**IF Q83 = 1 OR 6, AND Q84 = 1 FOR ONE OR BOTH OF THOSE PROGRAMS, AUTOCODE Q88a = 1, THEN SKIP TO Q88c (Define Local Program)**

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

- 1 Yes
- 2 No (**SKIP TO Q88c**)
- 8 Don't know (**SKIP TO Q88c**)
- 9 Refuse (**SKIP TO Q88c**)

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

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

**Define Local Program for Q88c - Q88f**

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

IF Q2 = 1 OR Q3 = 1 (Alexandria), INSERT Alexandria Rideshare as <PROGRAM> in Q88c - Q88f

IF Q2 = 2 OR Q3 = 3 (Arlington), INSERT Arlington County Commuter Services or The Commuter Store as <PROGRAM> in Q88c - Q88f

IF Q2 = 3 OR Q3 = 4 (Calvert), INSERT Tri-County Council for Southern Maryland as <PROGRAM> in Q88c - Q88f

IF Q2 = 4 OR Q3 = 5 (Charles), INSERT Tri-County Council for Southern Maryland as <PROGRAM> in Q88c - Q88f

IF Q2 = 6 OR Q3 = 7, 8, OR 9 (Fairfax Co, Ffx City, Falls Church), INSERT Fairfax County RideSources as <PROGRAM> in Q88c - Q88f

IF Q2 = 7 OR Q3 = 10 (Frederick), INSERT TransIT Services of Frederick County as <PROGRAM> in Q88c - Q88f

IF Q2 = 8 OR Q3 = 12 (Loudoun), INSERT Loudoun County Office of Transportation Services as <PROGRAM> in Q88c - Q88f

IF Q2 = 9 OR Q3 = 15 (Montgomery), INSERT Montgomery County Commuter Services, Bethesda Transportation Solutions, or North Bethesda Transportation Center as <PROGRAM> in Q88c - Q88f

IF Q2 = 10 OR Q3 = 16 (Prince Georges), INSERT RideSmart as <PROGRAM> in Q88c - Q88f

IF Q2 = 11 OR Q3 = 13, 14, OR 17 (Prince William, Manassas, Manassas Park), INSERT PRTC OmniMatch as <PROGRAM> in Q88c-Q88f

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

88d Have you heard of an organization or service called <PROGRAM>?

**IF YES AND Q88c = 2 OR 7, CLARIFY WHICH PROGRAM OR PROGRAMS ARE KNOWN. THEN CODE THAT/THOSE PROGRAMS IN 88d**

- 1 Alexandria Rideshare
  - 2 Arlington County Commuter Services, The Commuter Store
  - 3 Tri-County Council of Southern Maryland (Calvert, Charles)
  - 4 Fairfax County RideSources
  - 5 TransIT Services of Frederick County
  - 6 Loudoun County Office of Transportation Services
  - 7 Montgomery County Commuter Services, Bethesda Transportation Solutions, North Bethesda Transportation Center
  - 8 RideSmart (Prince Georges)
  - 9 PRTC OmniMatch (Prince William)
- 88 Don't know (SKIP TO Q88g)  
99 Refuse (SKIP TO Q88g)

**ASK Q88e FOR ANY RESPONSE CODED YES IN Q88d**

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

- 1 Alexandria Rideshare
  - 2 Arlington County Commuter Services, The Commuter Store
  - 3 Tri-County Council of Southern Maryland (Calvert, Charles)
  - 4 Fairfax County RideSources
  - 5 TransIT Services of Frederick County
  - 6 Loudoun County Office of Transportation Services
  - 7 Montgomery County Commuter Services, Bethesda Transportation Solutions, North Bethesda Transportation Center
  - 8 RideSmart (Prince Georges)
  - 9 PRTC OmniMatch (Prince William)
- 88 Don't know (SKIP TO Q88g)  
99 Refuse (SKIP TO Q88g)

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

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

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

88g **IF Q83 = 11, AUTOCODE Q88g = 2, THEN SKIP TO Q88h**

**IF Q83 = 12, AUTOCODE Q88g = 1, THEN SKIP TO Q88h**

Have you heard of a service called CommuterPage.com or CommuterDirect.com?

- 1 yes, know CommuterPage.com
- 2 Yes, know CommuterDirect.com
- 3 no (**SKIP TO Q88c**)
- 8 Don't know (**SKIP TO Q88c**)
- 9 Refuse (**SKIP TO Q88c**)

88h **IF Q84 = 1 for CommuterDirect.com or CommuterPage.com, AUTOCODE Q88h = 1, THEN SKIP TO Q89**

Have you used one of these services in the past year?

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

## **EMPLOYER SERVICES**

**IF HOMEALL SKIP TO Q105**

**IF TELEALL SKIP TO Q105**

89 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**)

89a Have you received or used this information from your employer?

- 1 yes
- 2 no
- 9 DK/Ref

90 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**)

90a Have you used this free parking?

- 1 yes
- 2 no
- 9 DK/Ref

**SKIP TO Q93**

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

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

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

- 1 yes
- 2 No (**SKIP TO Q93**)
- 9 Don't know/Ref (**SKIP TO Q93**)

92a Have you used this parking discount?

- 1 yes
- 2 no
- 9 DK/Ref

93 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**)

93a Have you used one of these special spaces?

- 1 yes
- 2 no
- 9 DK/Ref

94 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**)

94a Have you used the transit or vanpool subsidy?

- 1 yes
- 2 no
- 9 DK/Ref

95 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**)

95a Have you used the carpool subsidy?

- 1 yes
- 2 no
- 9 DK/Ref



- 96 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**)
- 96a Have you used any of these facilities or programs?
- 1 yes
  - 2 no (**SKIP TO Q97**)
  - 9 DK/Ref (**SKIP TO Q97**)
- 96b 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
- 97 And last, does your employer provide guaranteed rides (GRH) home in case of emergencies or unscheduled overtime? (**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**)
- 97a 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**

- 102 Do you know if there is a regional GRH or Guaranteed Ride Home program available in the event of unexpected emergencies and unscheduled overtime for commuters who rideshare or use public transportation?
- 1 yes, there is
  - 2 no , there isn't (**SKIP TO Q104a**)
  - 9 DK/Ref (**SKIP TO Q105**)

**IF Q97a = 1, CODE Q103 = 1, CODE Q104 = 2, THEN SKIP TO Q104a**

- 103 In the past two years, have you registered for or used any guaranteed Ride Home service?
- 1 Yes
  - 2 No (**SKIP TO Q104a**)
  - 9 DK/Ref (**SKIP TO Q104a**)
- 104 Who sponsored or offered the service? (**DO NOT READ**)
- 1 Commuter Connections/Council of Governments/COG
  - 2 Employer
  - 3 VRE
  - 4 TMA (TyTran)
  - 5 Other \_\_\_\_\_
  - 9 Don't know/Refuse

## **NEW PROGRAM OPTIONS**

104a In some U.S. cities, commuters can find carpool partners through an internet website. Commuters who want to carpool enter information about when and where they work and a phone number or email address where they can be contacted. They also can search for other commuters who have similar travel and want to carpool.

If a service like this was available in the Washington metro area and your personal information was kept confidential, how likely would you be to use it? Would you ...definitely use it, probably use it, maybe or maybe not use it, probably not use it, or definitely not use it?

- 1 definitely use **(SKIP TO Q104c)**
- 2 probably use **(SKIP TO Q104c)**
- 3 maybe or maybe not use **(SKIP TO Q104c)**
- 4 probably not use
- 5 definitely not use
- 9 DK/Ref **(DO NOT READ, SKIP TO Q104d)**

104b For what reasons would you not be interested in using this service? **(DO NOT READ RESPONSES; CHECK ALL THAT APPLY)**

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

### **SKIP TO Q104d**

104c Would you be willing to provide any of the following information on this website for other commuters to use to contact you...? **(READ CHOICES 1 - 3) (ALLOW MULTIPLE RESPONSES, 1 – 3)**

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

104d **IF Q15 = 5-15, ANY DAY, SKIP TO Q105**

Suppose commuters who carpool to work could receive a monthly \$25 gift card for purchases at area merchants. How likely would you be to try carpooling to receive the gift card? Would you ... definitely try, probably try, maybe or maybe not try, probably not try, or definitely not try carpooling?

- 1 definitely try **(SKIP TO Q105)**
- 2 probably try **(SKIP TO Q105)**
- 3 maybe or maybe not try
- 4 probably not try
- 5 definitely not try
- 9 DK/Ref **(DO NOT READ)**

104e What if the monthly gift card was for \$50? In this case, would you ... definitely try, probably try, maybe or maybe not try, probably not try, or definitely not try carpooling?

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

## KIOSKS

- 105 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 (**SKIP TO Q113**)
  - 9 DK/Ref. (**SKIPT O Q113**)
- 106 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 (**SKIP TO Q113**)
  - 9 DK/Ref. (**SKIP TO Q113**)
- 107 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 Pentagon
  - 5 Reston Town Center
  - 6 Springfield Mall
  - 7 Tysons Corner Center
  - 8 Union Station
  - 9 Montgomery County (White Flint Mall, County Executive Building)
  - 10 Fairfax County (libraries, government center, etc.)
  - 11 United States Department of Agriculture - Alexandria,
  - 12 United States Department of Agriculture, Washington, DC
  - 13 Dulles Town Center
  - 14 Manassas Mall
  - 15 Pentagon City Mall.
  - 16 Hoffman Center, Alexandria
  - 17 Mitre Corp, McLean, VA
  - 18 Other \_\_\_\_\_
  - 99 DK/Ref.
- 108 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**

109 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 (**SKIP TO Q113**)
9. DK/Ref. (**SKIP TO Q113**)

110 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 \_\_\_\_\_

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

\_\_\_\_\_ months (**CONVERT YEARS TO MONTHS**)

112 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**

- 113 In total, how many motor vehicles, in working condition, including automobiles, trucks, vans, and highway motorcycles are owned or leased by members of your household? \_\_\_\_\_
- 114 How many persons live in your home? Please count yourself, family and friends, and anyone who may be unrelated to you such as live-in housekeepers or boarders.
- \_\_\_\_\_ persons
- 88 Don't know (**SKIP TO Q118**)  
99 Refuse (**SKIP TO Q118**)

**IF Q114 = 1, AUTOCODE 1114a = 0, AUTOCODE Q115 = 1, THEN SKIP TO Q116**

- 114a And how many of these household members are under the age of 16?
- \_\_\_\_\_ household members
- 888 Don't know  
999 Refuse

**IF TELEALL OR HOMEALL SKIP TO Q119**

Now I have a few last questions for classification purposes.

- 118 First, about how many employees work at your worksite? Is it . . . (**READ CHOICES**)
- 1 1 – 25
  - 2 26-50
  - 3 51-100.
  - 4 101-250
  - 5 251-999.
  - 6 1,000 or more
  - 9 DK/Ref.

- 119 What is your occupation? \_\_\_\_\_

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

- 120 What type of employer do you work for? Is your employer a federal agency, a state or local government agency, a non-profit organization or association, a private employer, or are you self-employed?
- 1 federal agency
  - 2 state, or local government agency
  - 3 non-profit organization/association
  - 4 private sector employer
  - 5 self-employed
  - 6 other (SPECIFY) \_\_\_\_\_
  - 9 DK/Ref.

- 120a What is your zip code at work? \_\_\_\_\_

- 121 Which of the following groups includes your age? (**READ CHOICES**)
- 1 under 18
  - 2 18 - 24
  - 3 25 - 34
  - 4 35 - 44
  - 5 45 - 54
  - 6 55 - 64
  - 7 65 or older
  - 9 Refused (**DON'T READ**)

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

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

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

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

124 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!

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**(RECORD SEX:)** 1 male 2 female

**(RECORD LANGUAGE OF INTERVIEW:)** 1 English 2 Spanish

## APPENDIX D – INSTRUCTIONS AND DEFINITION OF TERMS FOR 2007 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, Q18, Q19a, 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 rides 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, Q97, Q97a, Q99, Q102–Q104, etc.:**

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

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

**Q13, Q14, Q36, Q62: Telework Centers.** Federally funded facilities located around the Washington area that allow government and non-government employees to work closer to home some or all of the time.

**Q20, Q26, Q46-Q51, Q58, Q62, Q66, Q67, Q81, Q88, Q108:**

**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, Dave Harper, Scot Evans

**Flexible working hours (Flex-time)**

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

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

**Q36. List of Telework Centers for SOC 2007****Maryland**

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

**Virginia**

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

**Washington, D.C.**

15. Executive Office Club

**West Virginia**

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

## APPENDIX E – COMPARISON OF KEY SOC RESULTS – 2007, 2004, AND 2001

### Current Travel Information

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

|               | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|---------------|-------------|-------------|-------------|
| DA/Motorcycle | 66.9%       | 71.4%       | 70.3%       |
| CP            | 6.4%        | 5.6%        | 6.9%        |
| VP            | 0.2%        | 0.3%        | 0.5%        |
| Bus           | 4.9%        | 4.4%        | 4.5%        |
| Metrorail     | 12.0%       | 11.5%       | 11.5%       |
| Commuter Rail | 0.7%        | 0.9%        | 0.8%        |
| Bike/walk     | 2.5%        | 2.2%        | 2.3%        |
| CWS           | 0.6%        | 0.7%        | 0.9%        |
| Telework      | 5.1%        | 2.3%        | 2.3%        |

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

|               | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|---------------|-------------|-------------|-------------|
| DA/Motorcycle | 71.0%       | 74.1%       | 72.6%       |
| CP/VP         | 7.6%        | 6.1%        | 7.6%        |
| Bus           | 5.2%        | 4.7%        | 4.6%        |
| Train         | 13.55       | 12.8%       | 12.7%       |
| Bike/walk     | 2.7%        | 2.3%        | 2.4%        |

- **Time of arrival at work**

|                     | <u>2007</u> |       | <u>2004</u> |       | <u>2001</u> |
|---------------------|-------------|-------|-------------|-------|-------------|
| 5 am to 6:59 am     | 15%         | } 91% | 14%         | } 90% | 91%         |
| 7 am to 7:59 am     | 24%         |       | 24%         |       |             |
| 8 am to 8:59 am     | 31%         |       | 34%         |       |             |
| 9 am to 9:59 am     | 21%         |       | 18%         |       |             |
| <hr/>               |             |       |             |       |             |
| 10 am to 5:59 pm    | 7%          | } 9%  | 8%          | } 10% | 9%          |
| 6 pm to midnight    | 1%          |       | 1%          |       |             |
| 12:01 am to 4:59 am | 1%          |       | 1%          |       |             |

- **Average length of commute**

|          | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|----------|-------------|-------------|-------------|
| Distance | 16.3 miles  | 16.5 miles  | 15.5 miles  |
| Time     | 35 minutes  | 34 minutes  | 32 minutes  |

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

|          | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|----------|-------------|-------------|-------------|
| No       | 67%         | 69%         | 72%         |
| Yes      | 33%         | 31%         | 28%         |
| 4/40     | 1%          | 2%          | 3%          |
| 9/80     | 2%          | 3%          | 2%          |
| Flextime | 27%         | 26%         | 22%         |

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

|                                  | <u>2007</u>      | <u>2004</u>      | <u>2001</u> |
|----------------------------------|------------------|------------------|-------------|
| 1 – 11 months                    | 17%              | 23%              | 28%         |
| 12 – 24 months                   | 21%              | 23%              | 23%         |
| <hr/>                            |                  |                  |             |
| 25 – 36 months                   | 10%              | 9%               | 49%         |
| 37 – 60 months                   | 13%              | 12%              |             |
| More than 60 months              | 39%              | 33%              |             |
|                                  | 62%              | 54%              |             |
| <b>Average duration (months)</b> | <b>80 months</b> | <b>70 months</b> | <b>N/A</b>  |

- **Carpool/Vanpool occupancy**

|              | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|--------------|-------------|-------------|-------------|
| Carpool/slug | 2.5         | 2.6         | 2.6         |
| Vanpool      | 9.6         | 10.0        | 11.4        |

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

|                                | <u>2007</u>      | <u>2004</u>      | <u>2001</u>      |
|--------------------------------|------------------|------------------|------------------|
| Picked-up at home              | 12%              | 15%              | 16%              |
| Drive to driver's home         | 10%              | 11%              | 11%              |
| Drive to central location      | 18%              | 18%              | 14%              |
| Another pool/dropped off       | 1%               | 1%               | 1%               |
| Walk                           | 35%              | 39%              | 39%              |
| Drive CP/VP                    | 10%              | 6%               | 9%               |
| Bus/transit                    | 12%              | 9%               | 10%              |
| <b>Average access distance</b> | <b>3.1 miles</b> | <b>3.1 miles</b> | <b>2.6 miles</b> |

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

|                              | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|------------------------------|-------------|-------------|-------------|
| Changed jobs                 | 18%         | 16%         | 5%          |
| Save money                   | 18%         | 14%         | 21%         |
| Save time                    | 13%         | 18%         | 20%         |
| Always used                  | 11%         | 7%          | 2%          |
| No parking / parking expense | 9%          | 3%          | 4%          |
| No vehicle available         | 8%          | 11%         | 19%         |
| Moved residence              | 8%          | 9%          | 3%          |
| Avoid congestion             | 5%          | 7%          | 8%          |
| Convenient / close to work   | 4%          | 1%          | 4%          |
| Gas prices too high          | 4%          | 0%          | 0%          |
| Tired of driving             | 4%          | 6%          | 8%          |

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

|                                 | <u>2007</u> | <u>2004</u> |
|---------------------------------|-------------|-------------|
| Not in Washington area then     | 15%         | 17%         |
| Always used this mode           | 23%         | 12%         |
| Made a change from another mode | 62%         | 71%         |
| Previous modes used             |             |             |
| Drive alone                     | 55%         | 56%         |
| Metr rail                       | 18%         | 11%         |
| Bus                             | 15%         | 15%         |
| Carpool/Vanpool                 | 10%         | 10%         |
| Bike/walk                       | 6%          | 8%          |
| CWS/Telework                    | 6%          | 4%          |
| Commuter Rail                   | 2%          | 1%          |

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

|                                 | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|---------------------------------|-------------|-------------|-------------|
| Yes                             | 14%         | 22%         | 24%         |
| <u>Other Alternatives Tried</u> |             |             |             |
| Carpool/casual carpool          | 11%         | 14%         | 14%         |
| Vanpool                         | 0%          | 1%          | <1%         |
| Bus                             | 32%         | 32%         | 33%         |
| Metr rail                       | 45%         | 11%         | 13%         |
| Commuter Rail                   | 7%          | 1%          |             |
| Bike/walk                       | 15%         | 13%         | 9%          |

} 52%      } 12%

## Telecommute

- **Telecommute incidence in region** – all commuters (workers who are not self-employed and working only at home)

|                                  | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|----------------------------------|-------------|-------------|-------------|
| % regional workers telecommuting | 18.7%       | 12.8%       | 11.3%       |
| Home-based telecommuters         | 95%         | 95%         | 98%         |

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

|                               | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|-------------------------------|-------------|-------------|-------------|
| Employers with formal program | 19%         | 15%         | N/A         |
| Employers with informal TC    | 22%         | 20%         | N/A         |

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

|  | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|--|-------------|-------------|-------------|
| Non-telecommuters (percent of total commuters)     | 81%         | 87%         | 89%         |
| Job responsibilities allow TC (“could TC”)         | 30%         | 25%         | 31%         |
| Interested in TC if offered (“could and would TC”) | 24%         | 19%         | 21%         |

- **Telecommute frequency** – current telecommuters

|                               | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|-------------------------------|-------------|-------------|-------------|
| Occasionally/special projects | 10%         | 10%         | 17%         |
| < once per month/emergency    | 8%          | 12%         | 12%         |
| 1 – 3 times per month         | 26%         | 32%         | 28%         |
| 1 day per week                | 18%         | 15%         | 16%         |
| 2 days per week               | 16%         | 12%         | 9%          |
| 3 or more times per week      | 22%         | 19%         | 16%         |
| <b>Mean (days per week)</b>   | <b>1.5</b>  | <b>1.3</b>  | <b>1.1</b>  |

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

|                     | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|---------------------|-------------|-------------|-------------|
| Less than one year  | 14%         | 22%         | 23%         |
| One to two years    | 29%         | 27%         | 29%         |
| More than two years | 58%         | 51%         | 48%         |

- **Reasons for telecommuting** – current telecommuters

|                                       | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|---------------------------------------|-------------|-------------|-------------|
| Save time                             | 10%         | 19%         | 14%         |
| New option became available           | 22%         | 18%         | 14%         |
| Personal circumstances (e.g. weather) | 16%         | 10%         | 4%          |
| Get more work done                    | 11%         | 9%          | 12%         |
| Convenient                            | 12%         | 8%          | 3%          |
| Stay with family or children          | 8%          | 7%          | 12%         |
| Changed jobs                          | 8%          | 6%          | 6%          |
| Tired of driving                      | 4%          | 6%          | 7%          |
| Save money                            | 3%          | 4%          | 7%          |
| Special program at work               | 7%          | 4%          | 7%          |
| Pressure/encouragement from employer  | 4%          | 4%          | 9%          |
| Initiated request on my own           | 6%          | 10%         | 7%          |
| Quiet/uninterrupted                   | 4%          | 4%          | 5%          |
| Avoid congestion                      | 4%          | 5%          | 5%          |

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

|  | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|--|-------------|-------------|-------------|
| Program at work/employer provided info | 55%         | 56%         | 34%         |
| Word of mouth                          | 13%         | 18%         | 18%         |
| Initiated request on my own            | 23%         | 16%         | 26%         |
| <b>Commuter Connections/COG</b>        | <b>1%</b>   | <b>5%</b>   | <b>6%</b>   |
| Advertising                            | 2%          | 3%          | 6%          |

## Awareness/Attitudes Toward Transportation Options

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

|  | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|--|-------------|-------------|-------------|
| Commuters with lane available on route to work | 29%         | 29%         | 27%         |
| Use lanes                                      | 27%         | 8%          | 7%          |
| Average time saving – one way trip             | 21 min.     | 25 min.     | 22 min.     |

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

|                            | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|----------------------------|-------------|-------------|-------------|
| Know locations of P&R lots | 38%         | 40%         | 42%         |
| Used P&R in past year      | 7%          | 7%          | 7%          |

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

|  | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|--|-------------|-------------|-------------|
| Trips takes too much time                            | 31%         | 32%         | 27%         |
| Need car for work                                    | 16%         | 15%         | 19%         |
| No bus service, don't know if service available      | 19%         | 16%         | 21%         |
| Work schedule irregular                              | 8%          | 8%          | 7%          |
| Trip too long – distance too far                     | 10%         | 7%          | 7%          |
| Bus unreliable/late                                  | 5%          | 5%          | 5%          |
| Need car before or after work                        | 9%          | 5%          | 6%          |
| Don't like riding with strangers, prefer to be alone | 6%          | 4%          | 3%          |

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

|  | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|--|-------------|-------------|-------------|
| No train service, don't know if service              | 30%         | 38%         | 43%         |
| Trips takes too much time                            | 22%         | 21%         | 16%         |
| Need car for work                                    | 16%         | 14%         | 18%         |
| Trip too long – distance too far                     | 6%          | 6%          | 5%          |
| Work schedule irregular                              | 7%          | 5%          | 5%          |
| Need car before or after work                        | 8%          | 4%          | 4%          |
| Don't like riding with strangers, prefer to be alone | 5%          | 2%          | 2%          |
| Too expensive  | 4%          | 4%          | 5%          |

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

|  | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|--|-------------|-------------|-------------|
| Don't know anyone to CP/VP with                      | 48%         | 47%         | 48%         |
| Work schedule irregular                              | 18%         | 20%         | 18%         |
| Need car for work                                    | 9%          | 12%         | 12%         |
| Need car before or after work                        | 11%         | 7%          | 7%          |
| Doesn't save time                                    | 5%          | 5%          | 4%          |
| Takes too much time                                  | 5%          | 4%          | 4%          |
| Don't like riding with strangers, prefer to be alone | 4%          | 4%          | 4%          |

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

|  | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|--|-------------|-------------|-------------|
| Easier                                   | 14%         | 14%         | N/A         |
| More difficult                           | 27%         | 29%         | N/A         |
| About the same                           | 57%         | 54%         | N/A         |
| <u>Reasons commute is easier</u>         |             |             |             |
| Shorter distance                         | 36%         | 44%         | N/A         |
| Route less congested                     | 27%         | 19%         | N/A         |
| Faster trip, less time                   | 28%         | 21%         | N/A         |
| Less stressful                           | 9%          | 9%          | N/A         |
| Started going to work earlier / later    | 5%          | 5%          | N/A         |
| Started using bus, train to work         | 4%          | 4%          | N/A         |
| Started driving alone to work            | 4%          | 4%          | N/A         |
| <u>Reasons commute is more difficult</u> |             |             |             |
| Route more congested                     | 75%         | 81%         | N/A         |
| Longer distance                          | 12%         | 11%         | N/A         |
| Slower trip, more time                   | 12%         | 11%         | N/A         |
| More stressful                           | 7%          | 5%          | N/A         |
| Construction on route to work            | 7%          | <1%         | N/A         |

## Advertising/Messages

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

|  | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|--|-------------|-------------|-------------|
| Yes                                    | 51%         | 55%         | 55%         |
| <u>Ad messages recalled</u>            |             |             |             |
| Use bus/train, Metro                   | 18%         | 7%          | 7%          |
| You can call for CP/VP info            | 14%         | 17%         | 9%          |
| New buses/trains coming                | 7%          | 7%          | 4%          |
| GRH                                    | 6%          | 12%         | 3%          |
| It would help the environment          | 5%          | 2%          | 4%          |
| It reduces traffic                     | 5%          | 3%          | 5%          |
| Call Commuter Connections, CC web site | 4%          | 6%          | 5%          |
| Telecommuting                          | 3%          | 3%          | 2%          |
| It saves money                         | 3%          | <1%         | <1%         |
| It saves time                          | 3%          | 2%          | 10%         |
| HOV lanes                              | 3%          | 2%          | 12%         |



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

|   | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|---|-------------|-------------|-------------|
| More likely to consider RS/transit  | 18%         | 18%         | 28%         |
| Took actions to change commute  | <1%         | 2%          | N/A         |
| Advertising encouraged action taken<br>(of respondents who took action)       | 67%         | 68%         | N/A         |
| <u>Actions taken</u>  |             |             |             |
| Sought commute info (internet, family,<br>commute organization, other source) | 0.7%        | 1.6%        | N/A         |
| Tried alt mode  | < 0,1%      | 0.2%        | N/A         |

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

|   | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|---|-------------|-------------|-------------|
| Know regional number/web site available | 51%         | 46%         | 33%         |
| Named CC as source (unprompted)         | 4%          | 6%          | 5%          |
| Used CC number/web site in past year    | 3%          | 1%          | N/A         |

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

|   | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|---|-------------|-------------|-------------|
| Yes – unprompted (named CC w/o prompt)                | 2%          | 6%          | 5%          |
| Yes – prompted (knew of CC with prompt)               | 53%         | 66%         | N/A         |
| <u>CC services recalled (respondents aware of CC)</u> |             |             |             |
| GRH   | 19%         | 40%         | N/A         |
| CP/VP, ridematch info                                 | 24%         | 28%         | N/A         |
| Help finding CP/VP partners                           | 22%         | 16%         | N/A         |
| Transit information                                   | 6%          | 5%          | N/A         |
| Telecommute info                                      | 1%          | 2%          | N/A         |

## Employer Services

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

|  | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|--|-------------|-------------|-------------|
| Free on-site parking                           | 65%         | 66%         | 65%         |
| Free off-site parking                          | 4%          | 3%          | 3%          |
| Employee pays full parking charge              | 21%         | 21%         | 23%         |
| Employer pays part of parking charge           | 7%          | 6%          | 6%          |
| CP/VP parking discount (when parking not free) | 15%         | 14%         | 14%         |

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

|                                   | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|-----------------------------------|-------------|-------------|-------------|
| Discount/free transit pass        | 33%         | 31%         | 29%         |
| Information on commute options    | 20%         | 22%         | 25%         |
| Preferential parking for CPVP     | 16%         | 16%         | 19%         |
| Bike/ped facilities or services   | 17%         | 14%         | 9%          |
| GRH                               | 12%         | 12%         | 19%         |
| CP financial incentive            | 3%          | 4%          | 7%          |
| None – employer doesn't offer any | 46%         | 47%         | 49%         |

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

|                                 | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|---------------------------------|-------------|-------------|-------------|
| Discount/free transit pass      | 41%         | 41%         | 31%         |
| Information on commute options  | 46%         | 45%         | 3%          |
| Preferential parking for CPVP   | 20%         | 20%         | 2%          |
| Bike/ped facilities or services | 12%         | 16%         | 3%          |
| Bike lockers or racks           | 8%          | 11%         | 17%         |
| Personal showers/lockers        | 6%          | 9%          | 10%         |
| GRH                             | 25%         | 25%         | 18%         |
| Parking discounts for CP/VP     | 27%         | 28%         | N/A         |
| CP financial incentive          | 15%         | 18%         | 3%          |

\* Note that in 2004 and 2007, this series of questions was asked differently than in 2001. In 2001, respondents were asked if the employer offered each of the services listed above, then were asked a general question to name any services they had used. In 2004 and 2007, respondents were asked a two-question series about each service: did the employer offer it and, if it was offered, did the respondent use that service. It is likely that the 2001 approach could have resulted in lower recall of use for some services in 2004 than was noted in 2001, with the single, non-service specific, question about service use.

## Kiosks

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

|  | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|--|-------------|-------------|-------------|
| Seen kiosks in past two years                      | 11%         | 11%         | 15%         |
| Used kiosks for commute info                       |             |             |             |
| Of respondents who saw kiosks                      | 14%         | 13%         | 13%         |
| Of all respondents                                 | 1.4%        | 1.3%        | 2%          |
| <u>Info obtained (respondents who used kiosks)</u> |             |             |             |
| Transit route/schedule info                        | 51%         | 46%         | 46%         |
| Rideshare info                                     | 5%          | 18%         | 18%         |
| Maps and guides                                    | 19%         | 7%          | 21%         |
| SmartTraveler                                      | 2%          | 4%          | 2%          |
| GRH info   | 0%          | 2%          | 4%          |
| Carpool/vanpool matchlist                          | 1%          | 1%          | 3%          |

- **Used info to try alt mode** (respondents who obtained commute info from kiosks, note sample sizes are small for all years: 2001 – 27 respondents, 2004 – 18 respondents, and 2007 – 18 respondents)

|                            | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|----------------------------|-------------|-------------|-------------|
| Yes                        | 26%         | 17%         | 22%         |
| <u>Alt Modes Tried</u>     |             |             |             |
| Bus                        | 42%         | 45%         | 41%         |
| Train                      | 49%         | 41%         | 37%         |
| Carpool/vanpool            | 10%         | 8%          | 26%         |
| Bike                       | 0%          | 6%          | 0%          |
| <u>Previous Modes Used</u> |             |             |             |
| Drive alone                | 68%         | 76%         | 52%         |
| Bus                        | 8%          | 6%          | 4%          |
| Train                      | 11%         | 4%          | 19%         |
| Carpool/vanpool            | 1%          | 8%          | 26%         |
| Bike                       | 0%          | 2%          | 0%          |

## Demographics

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

|           | <u>Residence</u> |             |             | <u>Employment</u> |             |             |
|-----------|------------------|-------------|-------------|-------------------|-------------|-------------|
|           | <u>2007</u>      | <u>2004</u> | <u>2001</u> | <u>2007</u>       | <u>2004</u> | <u>2001</u> |
| DC        | 12%              | 11%         | 12%         | 30%               | 29%         | 30%         |
| MD        | 45%              | 45%         | 48%         | 32%               | 32%         | 32%         |
| VA        | 43%              | 44%         | 41%         | 36%               | 37%         | 34%         |
| Other/Ref | 0%               | 0%          | 0%          | 2%                | 2%          | 4%          |

- **Employer type** – all respondents

|                         | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|-------------------------|-------------|-------------|-------------|
| Federal agency          | 20%         | 22%         | 20%         |
| State/local government  | 12%         | 13%         | 14%         |
| Non-profit organization | 11%         | 10%         | 10%         |
| Private sector          | 47%         | 49%         | 50%         |
| Self-employed           | 10%         | 7%          | 7%          |

- **Employer size** – all respondents

|                     | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|---------------------|-------------|-------------|-------------|
| 1 – 25 employees    | 26%         | 25%         | 30%         |
| 26 – 50 employees   | 10%         | 12%         | 12%         |
| 51 – 100 employees  | 12%         | 12%         | 11%         |
| 101 – 250 employees | 13%         | 13%         | 12%         |
| 251 – 999 employees | 15%         | 15%         | 14%         |
| 1,000 employees     | 24%         | 25%         | 22%         |

- **Age** – all respondents

|             | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|-------------|-------------|-------------|-------------|
| Under 24    | 4%          | 7%          | 10%         |
| 25 – 34     | 16%         | 21%         | 23%         |
| 35 – 44     | 28%         | 28%         | 29%         |
| 45 – 54     | 30%         | 27%         | 25%         |
| 55 – 64     | 18%         | 14%         | 10%         |
| 65 or older | 4%          | 3%          | 3%          |

- **Gender** – all respondents

|        | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|--------|-------------|-------------|-------------|
| Female | 54%         | 55%         | 54%         |
| Male   | 46%         | 45%         | 46%         |

- **Income** – all respondents

|                       | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|-----------------------|-------------|-------------|-------------|
| Under \$20,000        | 2%          | 2%          | 3%          |
| \$20,000 – \$29,999   | 4%          | 4%          | 6%          |
| \$30,000 – \$39,999   | 5%          | 8%          | 9%          |
| \$40,000 – \$59,999   | 12%         | 14%         | 18%         |
| \$60,000 – \$79,999   | 14%         | 17%         | 19%         |
| \$80,000 – \$99,999   | 15%         | 16%         | 15%         |
| \$100,000 – \$119,999 | 14%         | 14%         | 30%         |
| \$120,000 – \$139,999 | 9%          | 7%          |             |
| \$140,000 – \$159,999 | 7%          | 5%          |             |
| \$160,000 or more     | 18%         | 13%         |             |

} 48%      } 39%

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

|                        | <u>2007</u> | <u>2004</u> | <u>2001</u> |
|------------------------|-------------|-------------|-------------|
| Hispanic/Latino        | 9%          | 6%          | 6%          |
| White                  | 62%         | 64%         | 61%         |
| Black/African-American | 22%         | 23%         | 23%         |
| Asian                  | 4%          | 5%          | 5%          |
| Other/Mixed            | 3%          | 2%          | 5%          |