



COMMUTER CONNECTIONS

GUARANTEED RIDE HOME (GRH) PROGRAM

2013 GRH DRAFT SURVEY REPORT

Prepared for:

**Metropolitan Washington Council of Governments
Commuter Connections Program**

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SECTION 1 INTRODUCTION

This report presents the results of a Guaranteed Ride Home (GRH) survey of 2,374 commuters who currently participate or who have participated in the Commuter Connections regional Guaranteed Ride Home (GRH) Program operated by the Metropolitan Washington Council of Governments (MWCOG) for commuters who work in the metropolitan Washington region. MWCOG, through the National Capitol Region Transportation Planning Board (TPB), introduced the Commuter Connections GRH Program in 1997 to eliminate one barrier to using alternative modes, commuters' fear of being without transportation in the case of an emergency. The program provides up to four free rides home per year in a taxi, rental car, public transit, or a combination of these modes, in the event of an unexpected personal emergency or unscheduled overtime.

Commuter Connections undertook the survey described in this report for two purposes:

- Identify and examine commute and demographic characteristics of commuters participating in GRH.
- Collect data needed to estimate reductions in vehicle trips, vehicle miles traveled, and emissions reduced as a result of commuters' participation in the GRH Program.

This report covers the first of these two objectives. The report focuses on how the survey was conducted and what results were obtained. The second objective, the estimate of travel and air quality impacts of the program, will be addressed in an evaluation to be conducted in the spring of 2014. That evaluation will assess impacts of GRH and other Transportation Emission Control Measures (TERMs).

This report is divided into four 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 four appendices, including:

- Appendix A – Disposition of dialing results
- Appendix B – Survey questionnaire
- Appendix C – Respondent alert letters
- Appendix D – Results from 2010, 2007, 2004, and 2001 GRH Surveys – Comparison on Key Questions

SECTION 2 SURVEY AND SAMPLING METHODOLOGY

SURVEY GOALS

The primary goal of the GRH survey is to examine characteristics of GRH Program participants. Commuter Connections introduced GRH in January 1997. Since that time, Commuter Connections has collected data on GRH applicants through periodic surveys conducted to assess travel and air quality impacts of GRH participants. The 2013 GRH survey is the fifth such survey; previous GRH surveys were conducted in 2001, 2004, 2007, and 2010.

The survey is designed to examine three key research questions regarding potential travel changes that might be influenced or assisted by the GRH program. Specifically, the survey explores if the GRH program:

- Encourages commuters who drive alone to work to shift to alternative modes
- Encourages commuters who use alternative modes to use these modes more days per week
- Encourages commuters who use alternative modes to use them for a longer period of time

SAMPLE SELECTION PROCESS

The set of eligible respondents for this survey included any commuter who registered or participated in the GRH program between March 16, 2010 and March 15, 2013. Commuters who had active and valid registration status at the time of the survey were considered “current or Active registrants.” But some commuters who had participated in the program during the sample period had let their registrations expire and a small number had their registrations cancelled by Commuter Connections. These registrants were considered to be “past or Inactive registrants.”

A small percentage of commuters in the database never registered, but participated in the program under a “one-time exception” rule that allows commuters who otherwise meet the program requirements to receive one GRH trip without prior registration. These participants were designated “one-time exception” users. All three groups of participants were eligible for the survey.

In March 2013, the combined GRH database contained 29,893 records for the designated survey period. To prepare the database for the survey, CIC Research first removed duplicate records for commuters who re-registered for the program at the end of a year and were given a new status code and a new record. CIC also observed duplicate records with slight differences in name, but with the same telephone number or address. When all duplicates were removed, the remaining database contained 28,293 records.

For GRH surveys administered prior to 2010, applicants were sampled randomly from among all applicants entered in the database during the evaluation period, and telephone interviews were then conducted. In 2010 and 2013, Commuter Connections’ opted to conduct interviews by Internet if the applicant had provided an email address for contact and to conduct telephone interviews only with applicants who had not provided an email contact. For this reason, “past/Inactive” and “current/Active” participants were divided into Internet and telephone access groups, resulting in four sample groups. 1) Current-Telephone, 2) Past-Telephone, 3) Current-Internet, and 4) Past-Internet.

For the 2013 GRH survey, the evaluation team interviewed participants a total of 2,638 participants among the four groups. The sampling plan divided the required 2,638 completed interviews into Internet and telephone access groups, as well as past registrant and current registrant groups. Commuter Connections’ online GRH system could be used to survey only current participants, because it required respondents to access the survey through their GRH accounts. This group of Current-Internet applicants comprised a total of 1,332 interviews. The LDA/CIC team was assigned to complete the remaining three sample groups: Past-Telephone (66 interviews), Past-Internet (1,200 interviews) and Current-Telephone (40 interviews).

Shown below is a summary of the target quotas and populations for the four sample groups.

Table 1
Sample Group Quotas and Population

Sample Group	Target Quota	Population
Telephone Administration		
Current Participants	40	1,128
Past Participants	66	1,855
Internet Administration		
Current Participants	1,332	13,317
Past Participants	1,200	11,996
TOTAL – All Groups	2,638	28,296

QUESTIONNAIRE DESIGN

LDA Consulting, with input from COG/TPB staff and CIC Research, designed both the Internet and telephone questionnaires used in the survey. The questionnaires collected data on eight major topics:

- Registration status
- Current commute patterns
- Commute patterns before participating in GRH (Pre-GRH)
- Commute patterns while participation in GRH (During-GRH)
- Influence of GRH on commute choices
- Use of other, non-GRH services provided by Commuter Connections and other organizations
- Use of and satisfaction with GRH trips and the GRH Program
- Participant demographics

The questionnaire was designed for two forms of administration: telephone and Internet. The full set of questions was included in each form, but minor wording and format changes were made to the Internet version for visual administration.

Prior to conducting the full survey, pretests were conducted for both the telephone and Internet surveys. For the telephone survey, an initial sample of 200 randomly-selected current program participants was drawn from the database and 15 pretest interviews were completed between March 20 and 22. For the Internet survey of current participants, an initial sample of 300 was randomly drawn from the active database. On April 4, COG sent to these applicants the pretest letter of introduction containing a link to the survey. A total of 18 interviews were completed via the Internet for the pretest. Review of the results indicated that only minor changes were needed to the questionnaire and the survey instruments were finalized. A copy of the final internet questionnaire is presented in Appendix B.

SURVEY ADMINISTRATION

Telephone Interviews

Once the pretest was completed and the questionnaire finalized, an introductory letter was designed and mailed to all past and current participants who were included in the telephone survey, to introduce them to the upcoming study. The letter was mailed on April 24, 2013 by COG/TPB staff. Copies of this document can be found in Appendix C. Interviews were conducted in CIC's telephone survey facilities, using the CATI (computer-assisted telephone interviewing) system and Voxco software.

Prior to beginning the full telephone survey effort, interviewer-training sessions were held. Issues discussed in the session included:

- An explanation of the purpose of the study and 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
- Review of skip-patterns to familiarize interviewers with questionnaire flow
- Practice session on CATI systems in full operational mode

Telephone calls were made between May 6 and May 22, 2013. Interviewers made all weekday calls from 1:00 p.m. to 8:45 p.m. EDT and all weekend calls from 1:00 p.m. to 7:00 p.m. EDT. Calls were first directed to the respondent's work number. If contact was unsuccessful, the respondent was called at home. If the call was answered by an answering machine, at least five more attempts were made to contact the respondent. A minimum of six attempts were made to contact each "live" sample point.

All interviewing was conducted at CIC's offices with survey supervisors present. Survey supervisors were responsible for overseeing the CATI server, checking quotas, editing call-back appointment times, monitoring interviews, answering questions, and reviewing completed surveys. To insure data quality, the survey supervisors conducted periodic random monitoring. Other quality assurance checks were done once the data was collected.

A starting sample of 1,955 current and past sample points were activated for the telephone survey, but only 1,350 were needed to complete the total quota of 106 surveys. This was comprised of 66 surveys completed with past participants, and 40 surveys completed with current participants. This sample group had a refusal rate of 3.9%.¹ An average of 27.2 call attempts was made for each completed interview. A disposition of telephone dialing results can be found in Appendix A.

Internet Interviews

After the Internet questionnaire was finalized, an introductory letter was designed to introduce registrants who had provided an email address to the survey and request their participation. Following the Internet pretest, CIC compiled a list of the remaining 13,017 current registrants and 11,996 past registrants. COG staff emailed the letter of introduction to all of these sample points inviting them to complete the Internet survey. The letter included a direct, clickable link to the survey. Appendix C includes a copy of the Internet letter. Commuter Connections received "invalid/undeliverable email" returns from 354 current sample points and 783 past sample points.

Two reminder letters were emailed to all prospective participants who had not yet responded to the survey. A total of 2,268 internet surveys were completed. These were comprised of 1,285 current registrants and 983 past registrants.

¹ Refusal rates are calculated as the number of initial refusals, plus the number terminated during the interview, divided by the total sample. See Appendix A.

WEIGHTING OF SURVEY DATA

After all interviews were completed, the data were weighted to align the survey results with the total population of GRH participants during the evaluation period. The criterion used to weight the survey data was “type” of GRH participant. This variable denotes if the participant is currently registered for GRH or was registered in the past. The following table shows the relationship between the sample and the total participation group for the weighting variable – type of GRH participant.

Type of GRH Participant	Sample Group	Total Population
Current participant/registrant (Includes one-time exceptions)	56%	51%
Past participant/registrant	44%	49%

The differences between these groups test statistically significant, thus were weighted to realign participant responses to the population groups. As anticipated, the sample group contained a higher proportion of current participants and a lower proportion of past participants, when compared to the total respondent group.

Table 2
Comparison of Sample Group and Total Population Distribution

Type of GRH Participant	Sample Group		Total Population
	n = ___	Percentage	Percentage
Current Participants			
Telephone participants	40	1.7%	4.0%
Internet participants	1,285	54.1%	47.0%
Total Current Participants:	1,325	55.8%	51.0%
Past Participants			
Past telephone participants	66	2.8%	6.6%
Past Internet participants	983	41.4%	42.4%
Total Past Participants:	1,049	44.2%	49.0%
TOTAL – ALL PARTICIPANTS	2,374	100.0%	100.0%

Level of Confidence for Analysis

The level of confidence for the study was calculated using the finite population correction factor. Completion of 2,374 interviews from a population of 27,156 (28,293 less undeliverable emails of 1,137) resulted in a level of confidence of 95% \pm 1.9% for the 2013 Washington GRH Applicant survey.

NON-RESPONSE SURVEY

After the completing the GRH survey, a non-response survey was conducted to determine if participants who did not respond to the survey invitation were different from those who did respond. A total of 12,029 sample points were eligible for inclusion in the non-response survey. These sample points were made up of current participants who had valid email addresses and did not respond to the Internet survey.

The questionnaire used for the non-response survey included nine key questions selected from the GRH survey, as well as four additional questions used to help determine why the respondent did not reply to the original interview request. A total of 300 sample points were loaded into the CATI program and 67 current participants were contacted via the telephone and administered the abbreviated, non-response survey. The sample size for the non-response survey results has a 90 percent confidence level and 10.0% error rate coupled with the inclusion of a population correction factor. Statistical comparisons were made on the following six areas:

- Currently registered for Commuter Connection's GRH program
- Number of weekdays working
- Current commute mode
- Age of respondent
- Ethnicity of respondent
- Household income of respondent

Findings from the non-response survey included the following:

- A significantly higher proportion of Internet survey respondents said they work a compressed work schedule (17%) or telework (28%) than was observed for telephone non-respondents (3% and 12% respectively). One possible explanation for this difference is that Internet participants might have misunderstood some aspect of this schedule option, whereas telephone participants have the opportunity to ask questions if they do not fully understand category inclusions. Additionally, telephone interviewers know to clarify schedules that are not commonly reported to be sure they are accurate.
- A significantly lower proportion of Internet survey respondents said they vanpool to work (14.4%) than was observed for telephone non-respondents (23.9%).
- The distributions of Internet and telephone non-respondents are significantly different for racial background. Current participants surveyed by Internet indicate a significantly higher proportion of White participants (79%), and a significantly lower proportion of African-American (13%) as well as Asian participants (5%) compared with telephone non-respondent survey participants (61%, 26%, and 11% respectively).
- There is no distributional difference between the Internet and telephone non-respondent survey participants with respect to the age or income categories, or the number of days they work.

Additional Telephone Questions Administered to the Non-Response Set for Current Internet Participants

The response to the emailed invitation sent to current participants in the online database was substantially lower than expected. To explore why this response rate was low, four additional questions were added to the survey instrument administered to these follow-up telephone survey participants regarding their receipt and actions taken after receiving the invitation. Results from these questions are as follows:

- Recall receiving invitation – Of the 67 non-respondent participants surveyed, two in ten (19%) recalled receiving the Commuter Connections GRH survey via an email, four in ten (40%) did not recall receiving the email, and an additional four in ten (40%) were unsure if they had received it.
- Open Email – Slightly more than half (54%) of the non-respondent participants who recalled receiving the email said they opened it; the remaining 46% did not open the email,

- Why Not Open Email – Six of the 13 non-respondent participants who remembered getting the email from GRH did not open it. Two of the six were “too busy/didn’t get around to it,” one replied they “couldn’t get it to open,” one had not “gotten to it yet,” one is blind and finds it “hard to click on the survey attachment,” and one was unsure why they didn’t open it.
- Why Not Respond – The seven non-respondent participants who did open the email were asked why they did not respond to the Web survey invitation. Five of the seven participants (71%) were “too busy/didn’t get around to it,” one replied they had “filled the survey out online,” and one “had trouble finding surveys in the past and it probably happened this time.”

COMPARISON OF RESULTS – TELEPHONE VS. INTERNET

Using the same six areas as selected for statistical comparison in the non-response survey, CIC Research compared results from the total of all telephone surveys completed (n = 106), with the total of all Internet surveys completed (n = 2,268). The differences found include the following:

- Participants surveyed via the Internet (89%) are significantly more likely to respond that they are currently registered for the Commuter Connections GRH program, than are those surveyed via the telephone (77%).
- A significantly higher proportion of Internet survey respondents (14%) than telephone respondents (1%), said they work a compressed work schedule.
- There is a significant distributional difference between the Internet and telephone survey participants with respect to the age categories.
- Significantly fewer Internet survey participants (4%) than telephone survey participants (8%) consider themselves to be Latino, Hispanic or Spanish.
- A significantly greater proportion of Internet participants are of White ethnicity (78%) compared with telephone participants (65%), while a significantly smaller proportion of Internet participants are of African-American ethnicity (14%) compared with telephone participants (26%).

SECTION 3 SURVEY RESULTS

Following are key results from each section of the survey. Survey result percentages presented in the results tables and figures show percentages weighted to the total applicant population, but also show the raw number of respondents (e.g., n=__) to which the weighting factor was applied for that question.

Where relevant, survey results are compared for sub-groups of respondents and with corresponding data for the 2001, 2004, 2007, and 2010 Washington region GRH surveys, when these data are available. These comparisons are presented in the appropriate sub-sections and in Appendix D.

- Demographics of the sample
- GRH participation characteristics
- GRH information sources
- Current commute patterns for GRH participants
- Commute patterns before and during participation in GRH
- Influence of GRH on commute choices
- Use of other, non-GRH services provided by Commuter Connections and other organizations
- Use of and satisfaction with GRH trips and the GRH Program

CHARACTERISTICS AND DEMOGRAPHICS OF THE SAMPLE

Home and Work Location

As shown in Table 3, in the 2013 survey, the majority of respondents live in Virginia (60%). Slightly more than one-third (36%) live in Maryland. Two percent of respondents live in the District of Columbia and the same percentage live in another state. The distribution by work state is considerably different. More than six in ten respondents (61%) work in the District of Columbia and almost three in ten (28%) work in Virginia. The remaining 11% work in Maryland. These home and work distribution percentages were essentially the same as in the 2007 and 2010 surveys.

Table 3
Home and Work States

State	GRH 2013 (n = 2,374)		GRH 2010 (n = 1,032)		GRH 2007 (n=1,001)	
	Home State	Work State	Home State	Work State	Home State	Work State
District of Columbia	2%	61%	1%	63%	1%	60%
Maryland	36%	11%	32%	11%	34%	10%
Virginia	60%	28%	65%	26%	64%	30%
Other	2%	0%	2%	0%	1%	0%

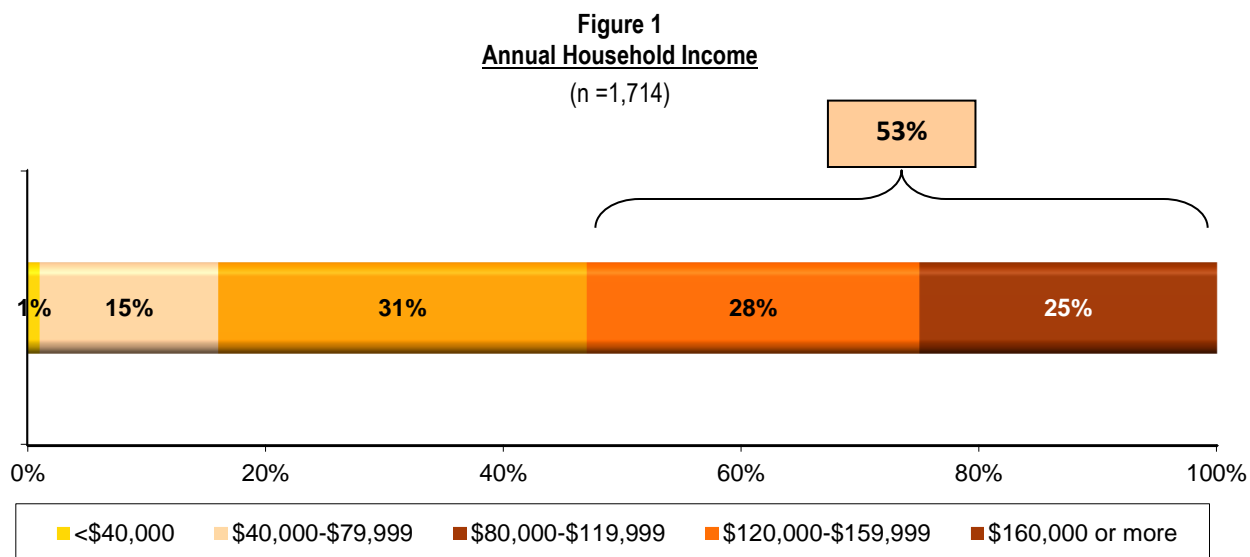
Top home Maryland and Virginia locations for 2013 GRH registrants, each with at least 4% of total respondents, include:

Virginia Counties	Percentage	Maryland Counties	Percentage
Prince William County	19%	Montgomery County	6%
Fairfax County	12%	Anne Arundel County	5%
Stafford County	8%	Frederick County	5%
Loudoun County	7%	Charles County	4%
Spotsylvania County	4%	Howard County	4%
		Prince George's County	4%

Demographics

The survey asked respondents four demographic questions: gender, income, age, and ethnic group. Respondents were about evenly divided into male (52%) and female (48%) respondents. Details of other characteristics are presented below.

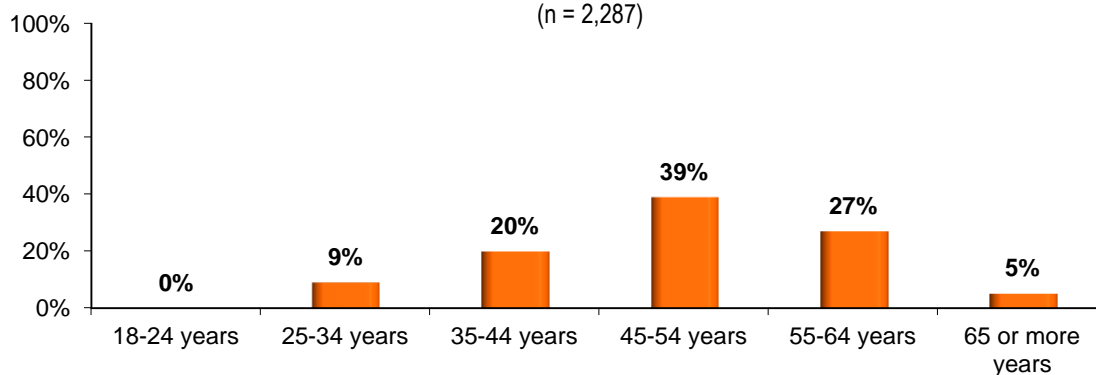
Income – Figure 1 presents the distribution of respondents' annual household income. GRH participants have quite high annual household incomes. More than eight in ten respondents (84%) have household incomes of \$80,000 or more and 53% have incomes of \$120,000 or more.



Age – GRH participants are clustered in the middle and older age brackets (Figure 2). About six in ten (59%) are between the ages of 35 and 54 years old. Approximately one in ten (9%) is under 35 and one-third (32%) are 55 years or older.

Figure 2
Respondent Age Distribution

(n = 2,287)



Ethnic Background – Lastly, as shown in Table 4, Caucasians/Whites and African-Americans represent the two largest ethnic group categories of GRH survey respondents, 73% and 16% respectively. Asians account for about 6% and Hispanics represent 5% of respondents.

Table 4
Ethnic Background

(n = 2,018)

Ethnic Group	Percentage
African-American / Black	16%
Causasian / White	73%
Asian	6%
Hispanic	5%

REGISTRATION INFORMATION

Registration Status

As noted earlier, to facilitate respondents' understanding of survey questions the GRH database population was divided into categories by their registration status. Table 5 presents the distribution of respondents by these categories.

More than seven in ten (72%) respondents said they are currently registered for GRH. About three in ten (28%) said they had been registered in the past, but are not currently participating. Less than 1% said they never registered; they participated as one-time exceptions.

Table 5
Registration Status as Defined by Respondent (during survey interview)
 (n = 2,374)

Registration Status	Percentage
Current registrants	72%
Past registrants	28%
One-time exceptions	<1%

The survey asked numerous questions relating to the times “before” and “while” participating in GRH. For this reason, respondents’ registration status is defined by both their actual status, as defined in the database, and by their perception of their status. This perceived status was used in the survey interview to ensure that respondents were asked questions that would make sense to them. But a substantial portion of respondents defined their registration status differently than was shown in the GRH database. Table 6 shows the distribution of respondents by these two status definitions.

Table 6
Registration Status as Defined by Respondent by Status Defined in Database

Registration Status Defined in GRH Database	Registration Status Perceived by Respondent	
	Current	Past
Current registrants (n = 1,275)	95%	5%
Past registrants (n = 1,098)	50%	50%

As shown, 95% of respondents whose database status is current correctly identified their status as current. The remaining 5% said they were no longer registered for the program, although their registration is actually current; they had registered or re-registered less than one year before the survey was conducted. Some of these respondents might have made a commute change since their last registration/re-registration date that would make them ineligible for GRH, such as reducing their use of alternative modes to less than twice per week. Because these respondents considered themselves no longer registered, they were treated in the survey interview as “past registrants.”

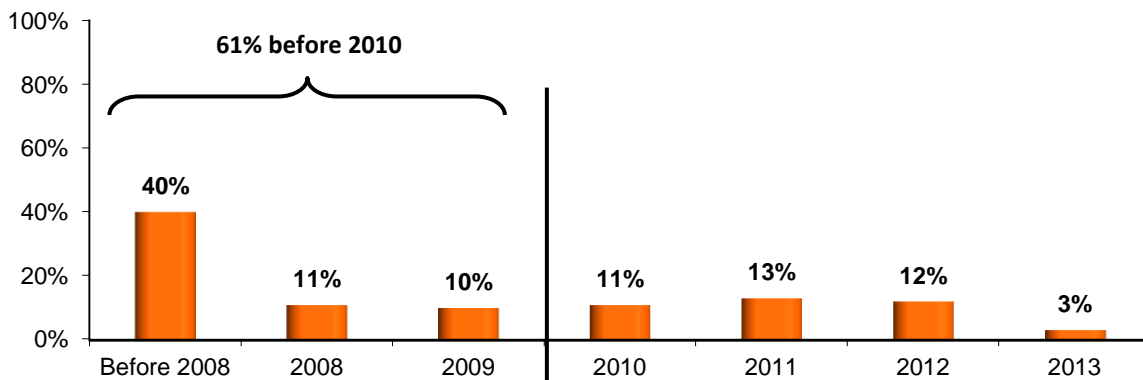
A larger issue is the 50% of respondents whose registrants has expired, but who think they are still registered. It is possible these respondents do not realize they need to re-register each year, so assume they are still eligible for the program. These respondents were treated as “currently registered” in the survey and throughout the report.

Year of Registration

Respondents were asked the year they first joined the program. The GRH Program was implemented in 1997, but continues to attract new participants each year. Respondents in this survey were selected from those who had registered or re-registered between March 2010 and March 2013. As shown in Figure 3, about six in ten (61%) surveyed respondents said they first registered before 2010. Eleven percent registered in 2010, 13% registered in 2011, and 15% registered in 2012. A small percentage said they registered in 2013, but because the GRH survey interviews were conducted in May and June 2013, registration figures for 2013 include only registrants who joined

GRH between January 1 through March 15. Note also, that 426 respondents, 18% of the total surveyed, could not remember when they registered. They are not included in the base for the distribution shown in Figure 3, however, it is likely many of these respondents would have registered at least several years ago .

Figure 3
Year First Registered for GRH Program
(n = 1,945)



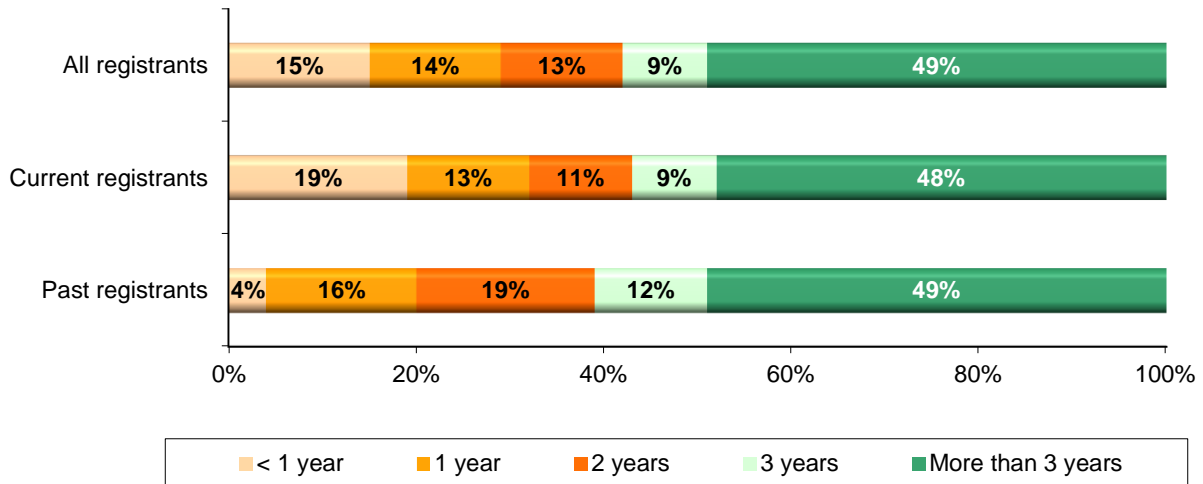
Participation in Other GRH Programs

When asked if they had participated in another GRH program prior to joining Commuter Connections' program, 45 respondents, less than 2%, said they had participated previously in another program. Twenty-one of these respondents indicated they had participated in a GRH program sponsored by their employer, nine participated in a "local government program", and 15 participated in an "other" program.

Time Participating in GRH

Figure 4 shows how long respondents have been registered for the GRH Program, or in the case of past registrants, how long they were registered. About seven in ten (71%) of all respondents participated or have been participating for two or more years. Not surprisingly, the comparison of GRH duration for current and past registrants shows that a larger percentage of current registrants are new to the program – 32% have been registered for one year or less, compared to 20% of past registrants.

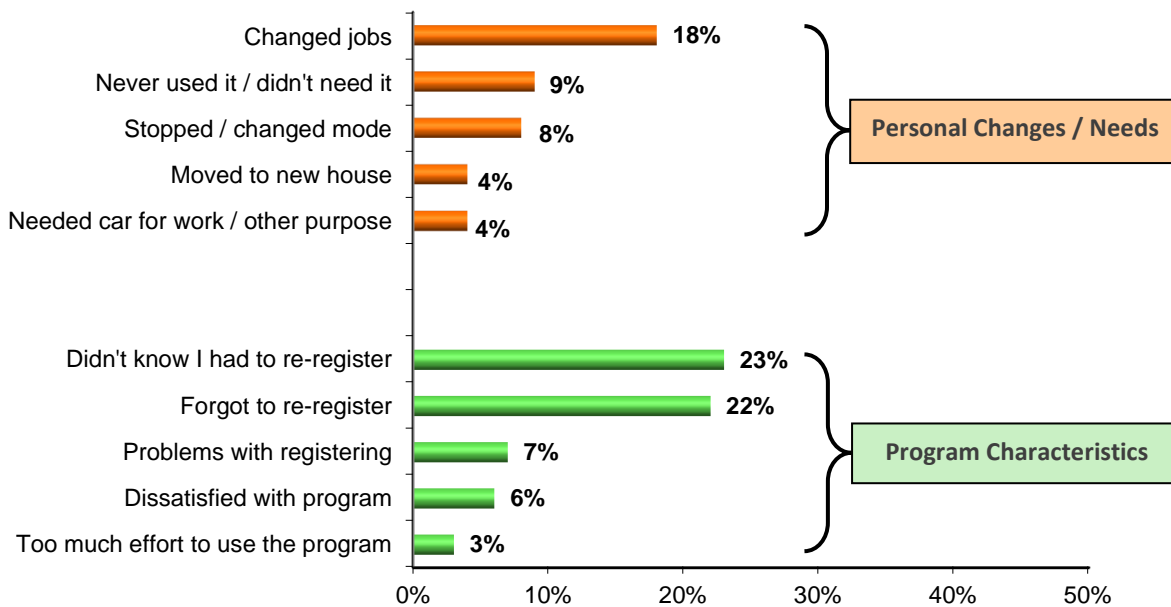
Figure 4
Length of Time Registered in GRH Program By Survey Registration Status
 (All registrants n = 1,926; Current registrants n = 1,462; Past Registrants n = 598)



Reasons for Not Re-registering

Past registrants were asked why they did not re-register for GRH Program when their registration expired. Figure 5 presents common reasons for not re-registering, divided into two categories: reasons associated with personal circumstances of the registrant and reasons associated with the GRH program.

Figure 5
Reasons Past Registrants Did Not Re-Register
 (n = 402)



A commonly mentioned program reason for not re-registering is that respondents hadn't gotten around to it/forgot, mentioned by 22% past registrants. This also was a primary reason noted in 2010 and 2007. Another frequently mentioned program reason was that respondents did not know they had to re-register / didn't know registration had expired, cited by 23% of respondents. The percentage of respondents citing this reason was about the same as for 2010, but nearly double that of 2007, suggesting that registrants need to be reminded that re-registration is required.

About one in ten said they are no longer eligible for the program, either because the carpool, vanpool, or transit arrangement didn't work out or because they stopped or changed their transportation mode. A similar share (7%) said they had problems/difficulties re-registering. Six percent were dissatisfied with the program/had a bad experience. Some respondents cited personal circumstances unrelated to the program. About 18% said they changed job or work hours, above the 10% who gave this response in 2010. One in ten (9%) had never used the program. Small percentages reported that they moved to a new residence or needed their cars for work or other purposes.

GRH INFORMATION SOURCES

How Heard About GRH

Commuters heard about the GRH Program from various sources. As shown in Table 7, three in ten (31%) mentioned word of mouth/referrals as their source of information, similar to the percentage who gave this response in 2010 (35%) and 2007 (34%). Most 2013 sources are generally similar to the 2010 results, except that the Internet was mentioned as a source by a slightly lower proportion of respondents (9%) in 2013 than had mentioned this source in 2010 (14%). Other typical 2013 responses included radio (12%), employer / employee survey (9%), sign on the bus or train (5%), or another rideshare or transit organization (5%).

Table 7
How Respondents Learned About GRH

Information Source	2013 GRH (n=2,374)	2010 GRH (n=1,032)	2007 GRH (n=1,001)	2004 GRH (n=1,030)
Word of mouth – referral	31%	35%	34%	26%
Radio	12%	12%	16%	16%
Internet	9%	14%	11%	11%
Employer/employee survey	9%	8%	7%	10%
Bus/train sign	5%	4%	3%	7%
Other rideshare/transit organization	5%	2%	N/A	N/A
Brochure/promo materials	3%	4%	7%	6%
Commuter Connections	3%	2%	N/A	N/A
Direct mail/postcard from CC	2%	3%	6%	5%
Advertisement	2%	3%	N/A	N/A
Don't know	20%	13%	13%	11%
Other *	5%	2%	5%	5%

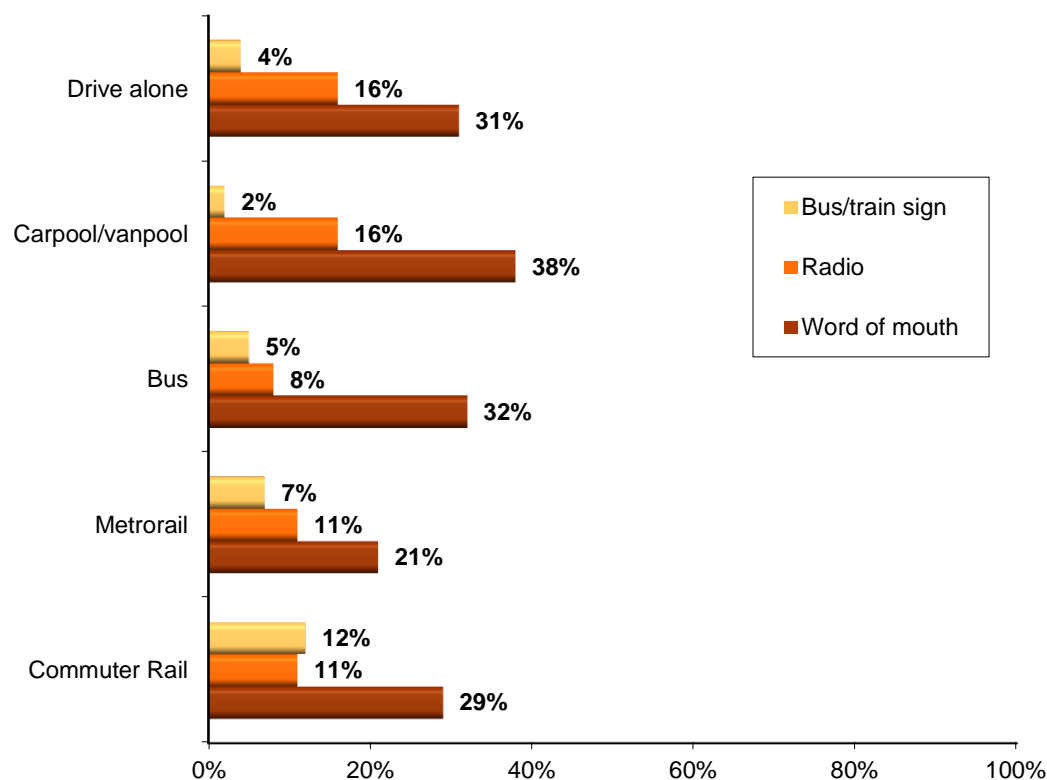
*Multiple responses permitted.

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

GRH Referral Source by Pre-GRH Commute Mode – Some differences also were noted for respondents’ source of referral by the mode they were using to get to work before they joined GRH (pre-GRH mode) (Figure 6). Nearly four in ten (38%) respondents who carpooled/ vanpooled to work pre-GRH mentioned “word of mouth” as their source, compared with about three in ten respondents who drove alone, rode a bus or commuter rail, and only 21% of respondents who rode Metrorail before joining GRH. Registrants who drove alone or carpooled/vanpooled before GRH were more likely to mention the radio as their source (16%), compared with about one in ten transit riders. Conversely, 12% of respondents who rode commuter rail mentioned seeing a sign on a bus or train or at a train station.

Figure 6
How Respondents Learned About GRH by Primary Mode Pre-GRH

(Drive alone n = 537; Carpool/vanpool n = 266; Bus n = 449, Metrorail n = 312, Commuter rail n = 403)



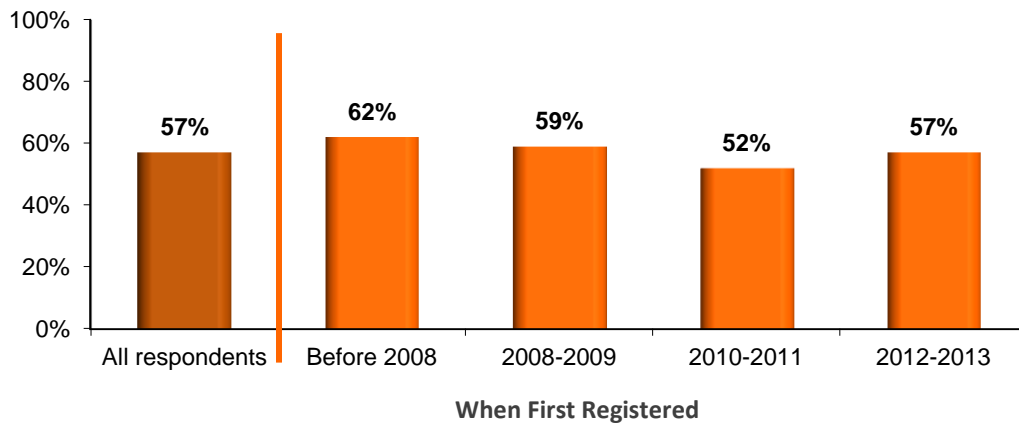
GRH Advertising

Heard or Saw GRH Advertising – When respondents were asked if they had heard, seen, or read any advertising about GRH, 57% of respondents said they recall GRH advertising (Figure 7).

Respondents are more likely to have seen or heard GRH advertising if they registered before 2008, compared to a more recent registration. Sixty-two percent who registered before 2008 and 59% who registered in 2008 or 2009 said they had heard or seen advertising, compared to 52% of respondents who registered between 2010 and 2011. This finding is consistent with Commuter Connections’ reduced level of GRH advertising in 2010 and 2011, compared to the early years of the GRH Program. But 57% of recent registrants (2012 and 2013) mentioned hearing or seeing an advertisement, so either actual advertising or awareness of advertising appears to be increasing.

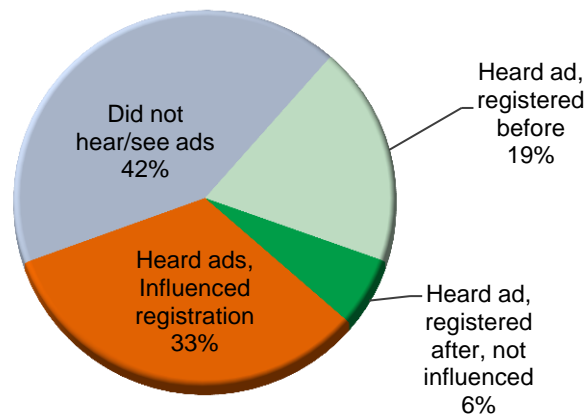
Figure 7
Heard or Saw GRH Advertising by Year Registered for GRH

(All n = 2,374, Before 2008 n = 757; 2008-2009 n = 402; 2010-2011 n = 476; 2012-2013 n = 310)



Influence of Ads on GRH Registration – The 57% of respondents who said they had seen or heard GRH advertising were asked if they had registered for GRH before they encountered the ads and if the ads had influenced them to register for GRH. Figure 8 shows these results, combined with the results for those who had not seen the ads. This chart thus summarizes ad exposure and ad influence.

Figure 8
Influence of GRH Advertising
(n = 2,374)



Four in ten (42%) respondents did not see or hear the ads at all. About two in ten (19%) saw or heard ads but had already registered for GRH. And 6% said they saw or heard the ads before they registered, but said the ads had not influenced them. These groups, in total, represented registrants who were not influenced.

The remaining 33% of respondents said they saw or heard the ads before they registered and that the advertising had encouraged them to register. This indicates the advertising was instrumental in both informing and persuading a substantial portion of registrants to join the program.

CURRENT COMMUTE PATTERNS

An important section of the survey examined characteristics of respondents' commuting behavior, particularly to determine changes respondents had made in response to GRH. Thus, the survey queried respondents about their commuting for three time periods:

- **Current** – Commuting patterns at the time of the survey
- **During-GRH** – Commuting patterns during the time the respondent participated in GRH. For current registrants, this is the same as the current time period. For one-time exception users and past registrants, this was a previous point in time.
- **Pre-GRH** – Commuting patterns at the time just before the respondent registered for GRH (current and past registrants) or heard about GRH (one-time exception users)

Commute pattern questions in the survey included:

- Current mode used
- Carpool occupancy, if applicable
- Length of time using current alternative modes
- Commute distance

Work Schedule

The overwhelming majority (98%) of respondents work full-time. But 21% work a compressed schedule in which they work a full-time schedule in fewer than five days; 18% work a 9/80 compressed schedule, with one weekday off in alternate weeks and three percent work a 4/40 schedule, with one weekday off each week. These respondents were classified as working a five-day week for purposes of commute mode, with either one or one-half week-days off each week.

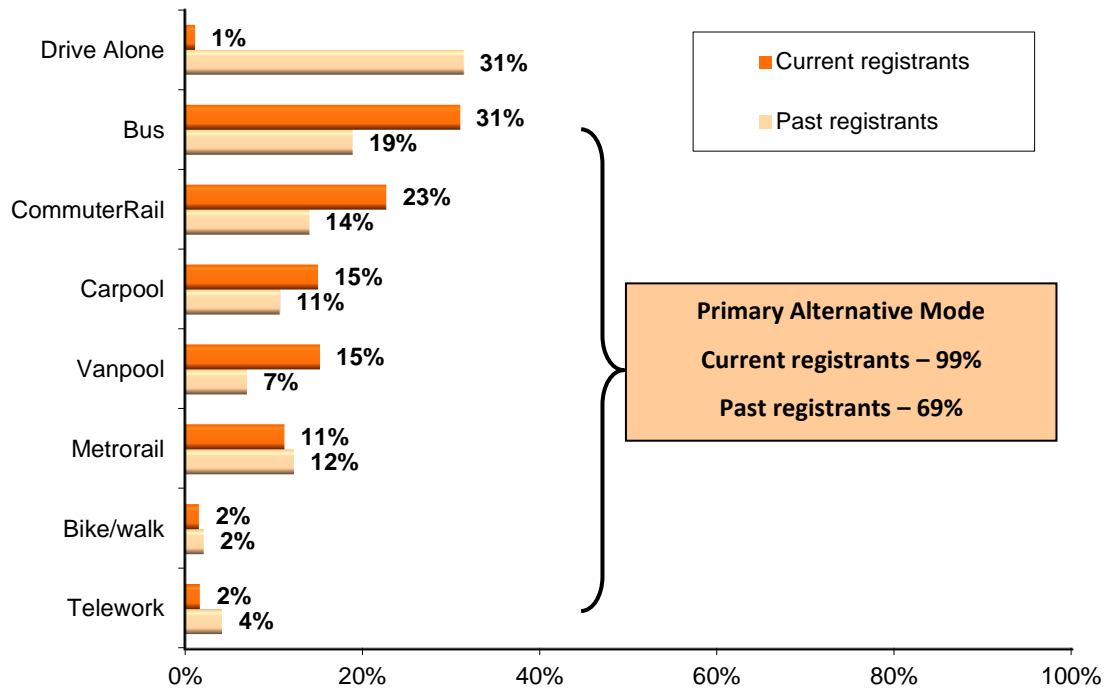
Current Commuting Mode

Respondents were asked about use of various commute modes for the preceding week. If a respondent said last week was not a "typical" commute week, they were instead asked about their travel for a "typical" Monday through Friday. Figure 9 shows the percentages of respondents who used various modes, based on the frequency with which they used the modes. Because it is expected that past respondents would have different modes from current respondents, these two groups are shown separately.

Current Registrants – Bus is the most common primary mode for current registrants. It is used by three in ten (31%) current registrants. Commuter rail is the second most common primary mode, used by 23% of current registrants. Carpool and vanpool each are used by 15% of current registrants. Metrorail is the primary mode for 11% of current registrants. Only 1% of current registrants said they primarily drive alone to work, but commuters are eligible for the program if they use any alternative mode two or more days per week, so this would be permissible. Two percent said they primarily telework or bicycle/walk to work.

Past Registrants – Not surprisingly, past registrants are more likely than current registrants to drive alone; 31% of past registrants said this is their primary mode. But nearly seven in ten (69%) past registrants said they still use an alternative mode most of the time. Thus they are still eligible for GRH, even though they no longer participate. Almost two in ten (19%) ride a bus, 14% ride commuter rail, and 12% ride Metrorail. About two in ten carpool or vanpool. Small percentages bike/walk or telework as their primary mode. The 2013 share of past registrants who are using an alternative mode is essentially the same as the 68% observed in the 2010 GRH survey.

Figure 9
Current Primary Modes by Registration Status
 (Current Registrants n = 1,773; Past Registrants n = 598)

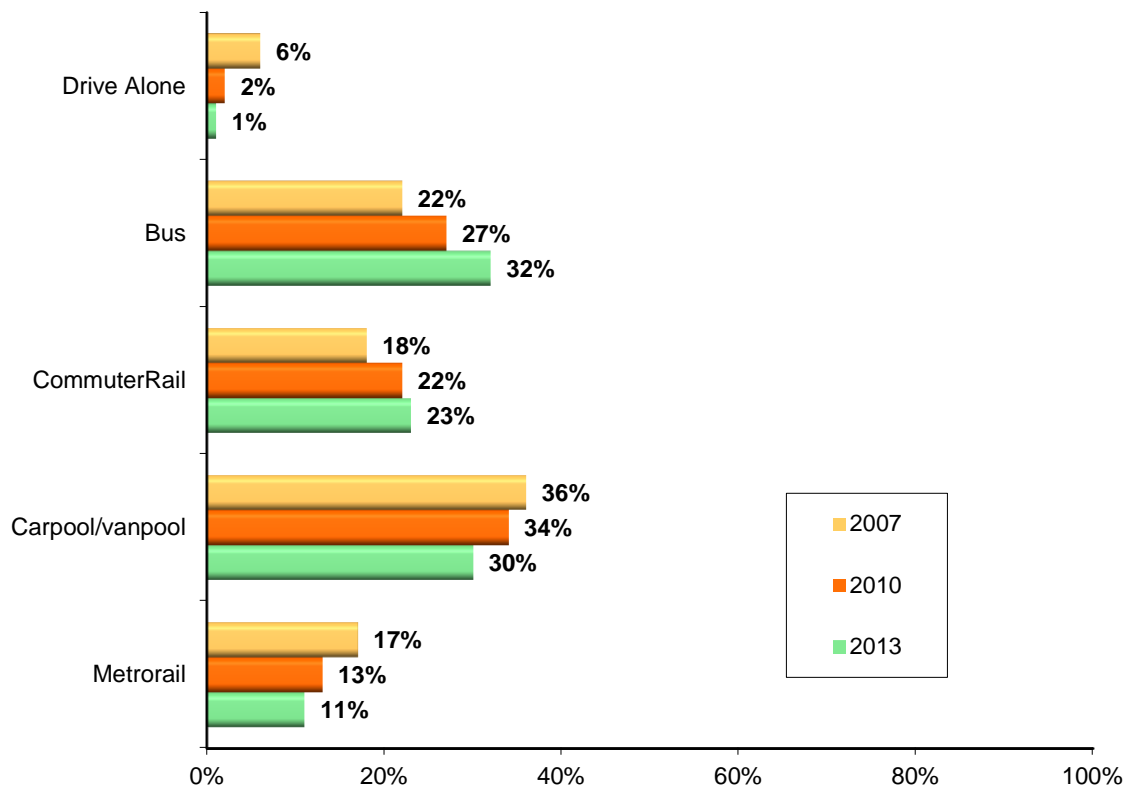


Current Mode, 2007, 2010, 2013 –The distribution of commute modes used by GRH registrants has changed over the past six years, as illustrated in Figure 10 (following page). The share of current registrants who use carpool / vanpool as their primary mode has declined from 36% of all registrants in 2007 to 30% in 2013. Use of Metrorail also has fallen, from 17% to 11%. Conversely, use of bus and commuter rail has increased. In 2007, only 27% of GRH registrants primarily rode a bus to work; in 2013, the percentage has grown to 32%. Commuter rail’s share of GRH registrants has increased from 18% to 23%.

Pool Occupancy

The average number of occupants in GRH carpools and vanpools was 3.0 and 10.4 people, respectively. Both the carpool occupancy and vanpool occupancy are slightly lower than the rates for 2010 (carpool 3.0, vanpool 10.6).

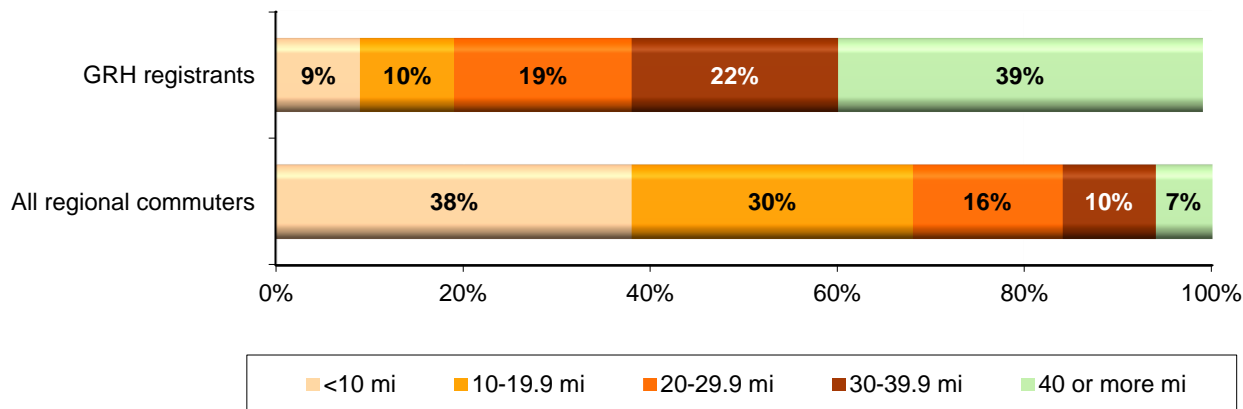
Figure 10
Primary Commute Modes Used by GRH Registrants in 2007, 2010 and 2013
 Current GRH Registrants
 (2007 n = 935; 2010 n = 787; 2013 n = 1,773)



Commuter Length

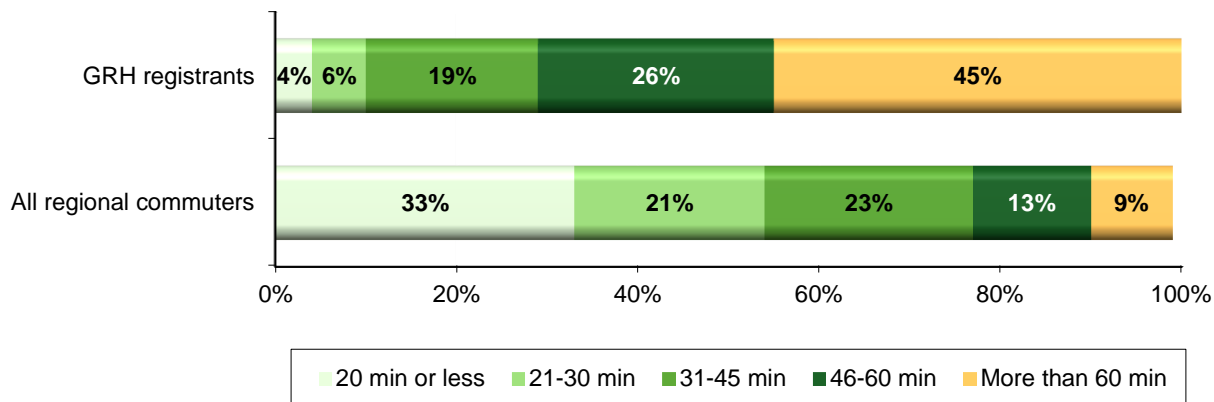
Commuter Miles – Commuters in the survey sample have a wide range of commute distances, from less than one mile to more than 120 miles. Figure 11 shows results for this travel characteristic. The average one-way distance for GRH respondents is 35.4 miles. This is considerably longer than the distance of 16.0 miles traveled by the average commuter in the Washington metro region, as defined by the 2013 regional State of Commute survey. More than six in ten (61%) GRH respondents commute 30 or more miles to work, compared to just 17% of all regional commuters.

Figure 11
Commuter Distance (miles) - GRH Registrants and All Regional Commuters
 (GRH registrants n = 2,308; All regional commuters n = 5,122)



Commuter Time – GRH participants commute, on average, about 66 minutes one way. This is also much longer than the commute time for all regional commuters, who commute an average of 36 minutes. As presented in Figure 12, 71% of GRH participants commute more than 45 minutes each way to work. More than four in ten (45%) commute more than an hour. Only 9% of all regional commuters travel this long to work.

Figure 12
Commuter Travel Time (minutes) – GRH Registrants and All Regional Commuters
 (GRH registrants n = 2,329; All regional commuters n = 5,605)



Primary Roads Used on the Trip to Work

The GRH survey also included a new question in 2013 to identify the major Interstate, state, and arterial roadways that commuters use to get to work. The results from this question will primarily be used for MWCOG planning purposes and in the TERM analysis to explore the role that Commuter Connections TERMS such as GRH play in mitigating congestion on specific roads in the MWCOG region. Analysis of the GRH data for this question will be described in the TERM Analysis report to be prepared in mid-2014.

COMMUTE PATTERNS BEFORE AND DURING PARTICIPATION IN GRH

The GRH survey was conducted in part to determine if and how commuters' participation in GRH had affected their commute patterns. Three key research questions were examined – does GRH:

- Encourage commuters who were driving alone to shift to alternative modes?
- Encourage commuters who were using alternative modes to use them more days per week?
- Extend the duration of commuters' use of alternative modes?

Survey results pertaining to these questions are presented below.

"During-GRH" Modes Compared with Washington Region

Respondents were asked about their commute modes during the time they participated in the GRH program and their modes before they participated. For current registrants and one-time exception users, the "During-GRH" mode is their current mode, as described earlier. Because past registrants might have changed modes since they left the program, these respondents were asked about their weekly travel during "the time you were registered."

Table 8 shows use of individual modes within the mode groups defined above. The table presents mode distributions for GRH registrants for the During-GRH time period and for all Washington metro region commuters, as reported in the 2013 State of the Commute (SOC) survey. GRH registrants had higher mode shares for all alternative modes than did the regional population. All of the differences noted were statistically significant.

Carpool/Vanpool – Among all commuters in the region who carpooled or vanpooled, regular carpooling dominates, with casual carpool (slug) and vanpool having much smaller mode shares. The distribution is much different for GRH registrants. About half of the GRH registrants in the carpool/vanpool group vanpool (15% of 33%) and casual carpool accounts for a quarter of the carpool/vanpool group (7% of 33%).

Bus – The bus mode group shows markedly different overall mode shares for the two populations with more than three in ten GRH registrants using bus, compared to about 6% of all regional commuters.

Metrorail and Commuter Rail – Rail ridership among GRH registrants also is quite different from that for all regional commuters. About 14% of registrants ride Metrorail, just slightly above the 13% of all regional commuters who use this mode. But commuter rail ridership shows dramatic differences for the two populations. Nearly one-quarter (24%) of GRH registrants use commuter rail, compared with about 1% of all commuters. VRE has the majority of commuter rail ridership, but MARC carries a substantial share also.

Table 8
Commute Modes Used One or More Days Per Week – During GRH Period
 GRH Registrants (Current and Past Combined) and All Regional Commuters

Commute Mode	2013 GRH Registrants (n = 2,374)	Regional 2013 SOC Survey** (n = 5,892)
Carpool/vanpool	33%	8%
- Regular carpool	11%	7%
- Casual carpool (slug)	7%	<1%
- Vanpool	15%	<1%
Transit	70%	20%
Bus	32%	6%
Metrorail	14%	13%
Commuter Rail	24%	1%
- MARC (MD commuter rail)	10%	<1%
- VRE	14%	<1%
- AMTRAK/other train	<1%	<1%
Drive alone	8%	72%
Bike/walk	3%	3%
Compressed work schedule	12%	3%
Telework	23%	12%

* Percentages will not total to 100%, because some respondents used more than one mode.

** Data from 2013 State of the Commute regional survey for the Metropolitan Washington region.

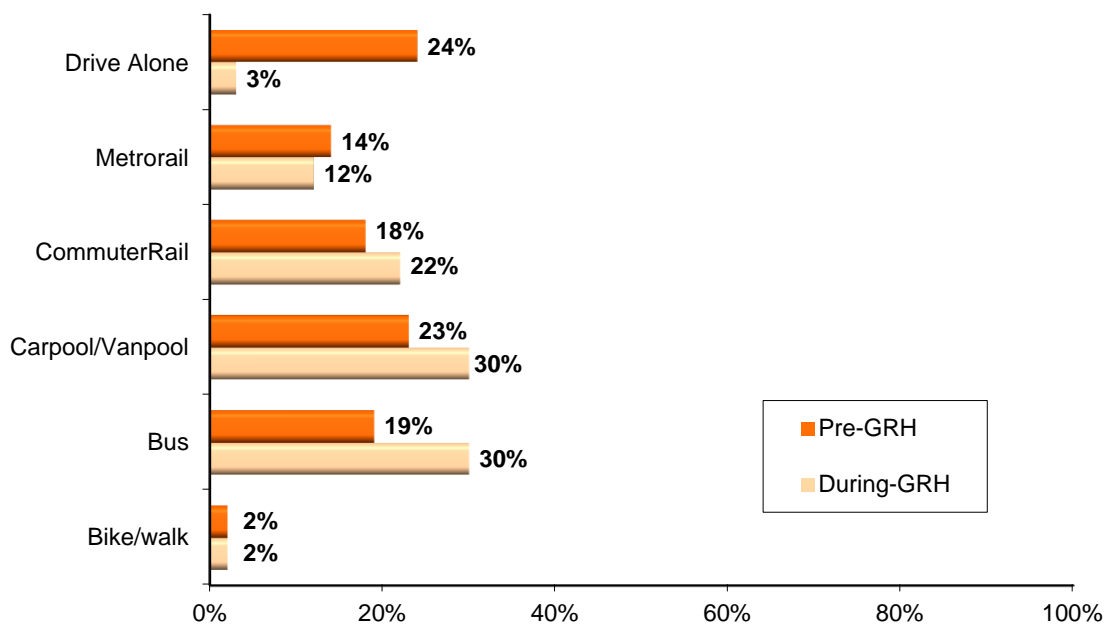
The disproportionate shares of commuter rail and vanpooling for GRH registrants are likely due to several factors. These commuters travel long distances. And commuter rail service is generally infrequent outside of peak commuting periods, heightening both the value of and need for GRH service. Additionally, VRE offered a GRH program prior to the start of Commuter Connections' GRH program and has incorporated the regional GRH Program into its marketing, providing an additional method for these commuters to learn about GRH.

"During-GRH" Modes Compared with "Pre-GRH" Modes

All respondents also were asked about their "pre-GRH" modes. Current and past registrants were asked about the "time before you registered for the GRH Program." Because one-time exception users did not register, they were asked about the "time before you heard about the GRH Program."

Figure 13 presents a comparison of respondents' primary modes before participating in GRH (pre-GRH) and while participating (During-GRH). Primary mode is defined as the mode used most days during a typical week: drive alone, Metrorail, commuter rail, carpool/vanpool, bus, and bike/walk. The percentages shown are percentages of respondents who used the mode groups as their primary modes during the time period shown.

Figure 13
Primary Modes Used Pre-GRH and During-GRH
 (During-GRH n = 2,374; Pre-GRH n = 2,261)



Note that the totals of these percentages do not add to 100%, because a small number of respondents said they primarily teleworked and that option is not shown. Additionally, five percent of respondents said they were not living or working in the Washington area before joining GRH. These respondents did not have a “pre-GRH” primary mode and were removed from the base.

As shown, 24% of respondents primarily drove alone pre-GRH. The primary Drive Alone mode share dropped to just 3% for the “During-GRH” time period. Not surprisingly, the share of respondents primarily using each alternative mode increased from the Pre-GRH to During-GRH time. Primary use of carpool/vanpool use increased from 23% pre-GRH to 30% During-GRH, bus use rose from 19% to 30%, and the share of respondents using commuter rail as their primary mode grew from 18% to 22%. Metrorail appears to have declined, but this difference was not statistically significant.

Table 9 illustrates the mode changes respondents made from their primary “pre-GRH” mode to their primary “During-GRH” mode. As expected, drive alone users made the greatest mode changes. Three in ten (31%) drive alone respondents shifted to carpooling and 60% shifted to transit. About 7% of drive alone commuters said they continued to drive alone as their primary mode.

Table 9
Primary Mode During-GRH by Primary Mode Pre-GRH

* Pre-GRH and During-GRH mode shares and between mode shift percentages will not total to 100%, because bike/walk and telecommute are excluded

Pre-GRH Mode	During-GRH Mode*				
	DA	Carpool / Vanpool	Bus	Metrorail	Commuter Rail
Drive alone (n = 537)	7%	31%	31%	11%	18%
Alternative Modes					
- Carpool/vanpool (n = 506)	1%	58%	18%	7%	14%
- Bus (n = 449)	1%	17%	60%	8%	13%
- Metrorail (n = 312)	1%	17%	23%	39%	17%
- Commuter rail (n =403)	2%	18%	17%	7%	54%

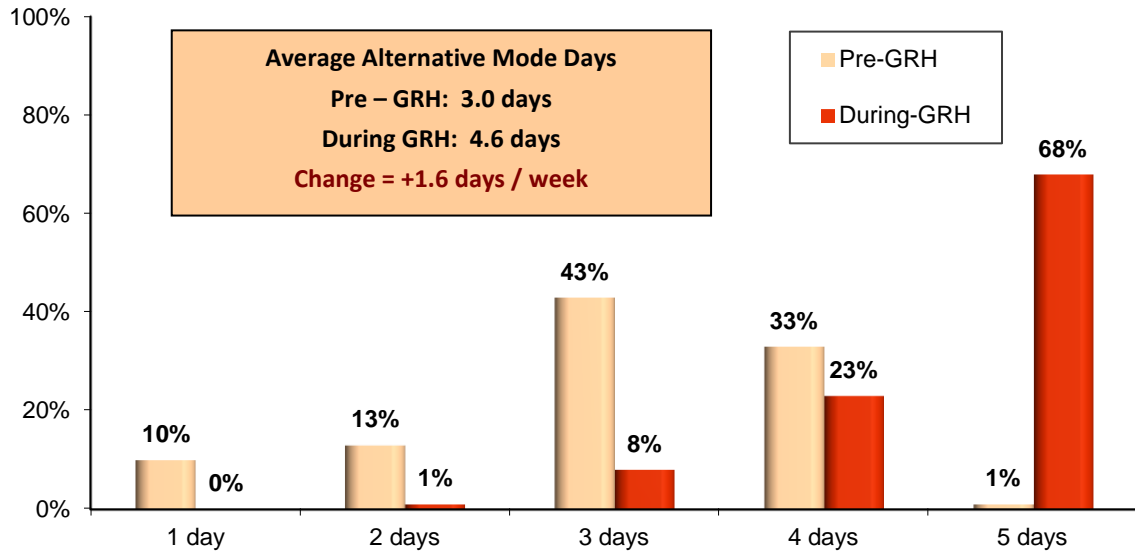
Respondents who were using alternative modes before they joined GRH largely remained in their pre-GRH modes after they joined GRH. About six in ten respondents who previously carpooled/vanpooled (58%), rode a bus (60%), or used commuter rail (54%) stayed in these modes. The Metrorail retention was noticeably lower, at 39%. But some switching occurred among alternative modes. About two in ten respondents who used a bus, Metrorail, or commuter rail Pre-GRH switched to carpool or vanpool. Bus also gained users from all other Pre-GRH modes.

“During-GRH” Days in Alternative Modes Compared with “Pre-GRH” Days

Respondents Who Increased Alternative Mode Frequency – The second research question in the survey focused on frequency of alternative mode use. Did participants who were using alternatives before joining the program increase the number of days they use these modes after registering for GRH? Figure 14 shows the number of alternative mode days per week for these respondents, Pre-GRH and During-GRH. It was not possible to answer the question with confidence, due to a small sample; only 70 of the 2,374 respondents said they increased alternative mode frequency. But clearly, these respondents did increase their use of alternative modes.

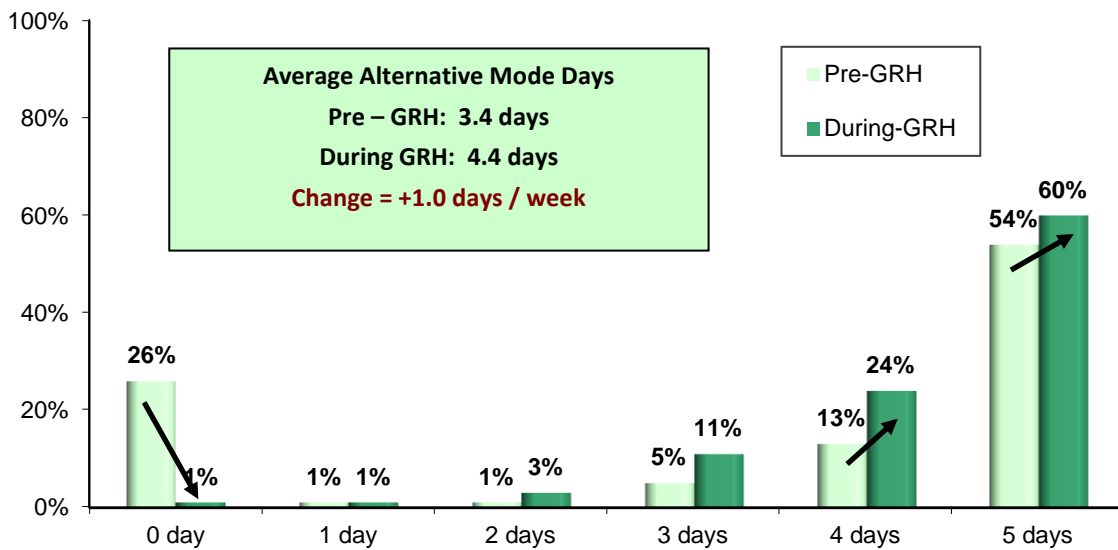
One-third (33%) of these respondents were using alternative modes four days per week and 43% were using alternative modes three days per week before they joined GRH. About one-quarter (23%) used alternative modes one or two days per week before joining GRH. So, most respondents could add only one or two days of alternative mode use per week. During their GRH registration period, more than two-thirds (68%) were full-time users of alternative modes, while another one-quarter (23%) used alternative modes four days per week. Only about one in ten used alternative modes less often than three days per week. This is consistent with the change in the overall increase in average alternative mode days from 3.0 days to 4.6 days, or about 1.6 days per week increase per respondent.

Figure 14
Days Using Alternative Modes Pre-GRH and During-GRH
(Respondents Who Increased Alternative Mode Frequency During-GRH)
 (n = 70)



All GRH Respondents – The analysis also examined the overall frequency of alternative mode use for all GRH respondents. These results are shown in Figure 15.

Figure 15
Days Using Alternative Modes Pre-GRH and During-GRH (All GRH Respondents)
 (During-GRH n = 2,374; Pre-GRH n = 2,261)



The average number of days all GRH participants used alternative modes increased, from 3.4 days per week to 4.4 days per week. But the majority of the increase came from respondents who did not use alternatives at all pre-GRH. In other words, the overall increase in the average frequency of alternative mode use resulted primarily from shifts from drive alone to alternatives, rather than from shifts among current alternative mode users.

On a positive note, since there was very little change in the one-day, two-days, and three-days per week categories, it is clear that most of the respondents who never used alternatives before GRH started using alternatives four or five days per week During-GRH.

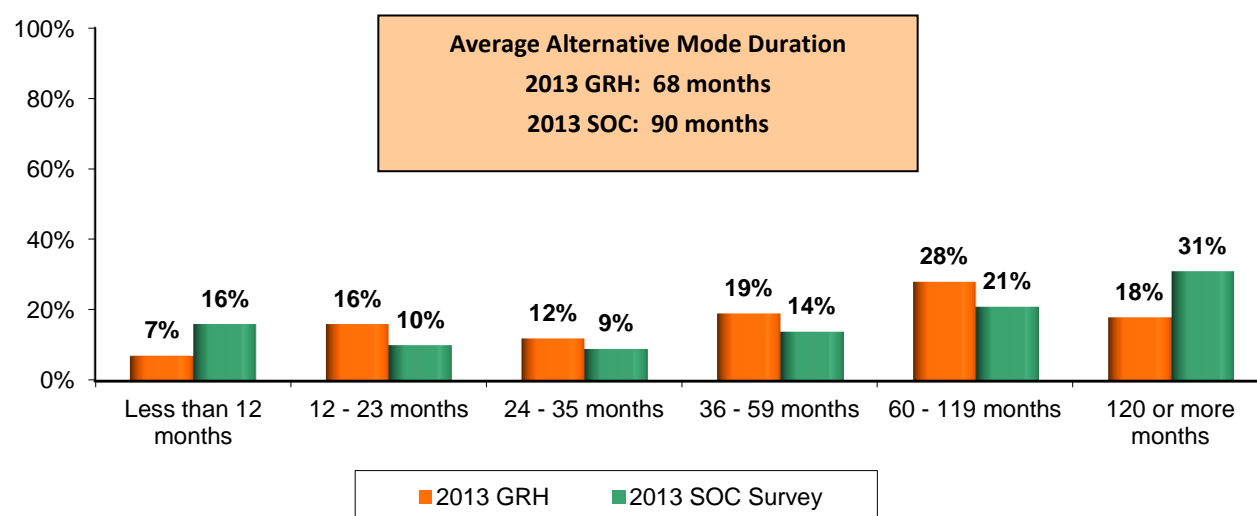
Length of Time Using Current Alternative Modes

The third research question examined the duration of alternative mode arrangements. Did GRH encourage participants to stay in alternative modes longer than they otherwise would have done? Respondents who said they used an alternative mode at least one day during the survey week were asked how long they have been using this form of transportation. Figure 16 presents this distribution for the survey results.

As shown in Figure 16, nearly half (46%) of GRH participants said they have used their current alternative mode for five years or longer and three-quarters (77%) have used this mode for two years or more. On average they have used these modes for 68 months. This is a considerably shorter duration than the 90-month average for all regional commuters, based on data from the 2013 State of the Commute survey. The share of regional commuters who said they have used their current alternative mode for less than two years is about the same (26%) as for the GRH respondents. But 31% of regional commuters have been using their alternative mode ten years or more, compared with only 18% of GRH respondents.

Figure 16
Length of Time Using Alternative Modes – Current Alternative Mode Users

(2013 GRH n = 2,169; 2013 SOC n = 1,543)



INFLUENCE OF GRH ON COMMUTE PATTERN DECISIONS

Types of Pre-GRH to During-GRH Commute Changes

The comparison of pre-GRH and During-GRH commute patterns is only part of the question of GRH's impact. Also important is the value of GRH in motivating these changes. Three types of pre-GRH and During-GRH commute pattern combinations were examined:

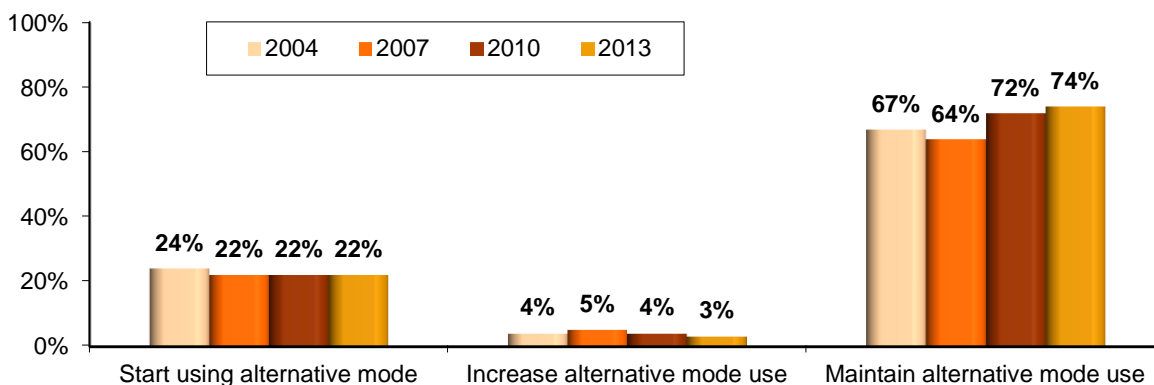
- Start alternative mode – Respondents who drove alone pre-GRH and started using alternative modes During-GRH
- Increase alternative mode – Commuters who were using an alternative pre-GRH and increased the frequency of alternative mode use During-GRH
- Maintain alternative mode – Commuters who were using an alternative mode pre-GRH and continued using it During-GRH, with no changes

Figure 17 presents a breakdown of respondents into these alternative mode change groups. About two in ten (22%) respondents said they started using alternatives at the time they joined GRH. A small number of respondents (3%) increased the number of days they used alternative modes. These percentages were similar to those reported in the three previous GRH surveys (2004, 2007, and 2010). The largest share of respondents (74%) said they maintained but did not increase use of an alternative mode that they were using before GRH. This is to be expected, since most respondents were using an alternative pre-GRH and most used alternative modes four or five days per week pre-GRH. This percentage of "maintained" alternative mode use is about the same in 2013 as was observed in 2010 (72%)

Figure 17
Alternative Mode Changes from Pre-GRH to During-GRH

(2004 n = 981, 2007 n = 918, 2010 n = 972, 2013 n = 2,226)

Note: Totals will not add to 100% because some respondents said they did not use an alternative mode "During-GRH"



About 1% of respondents said they were not using an alternative mode while they were in GRH, even though the program requires them to be using an alternative mode to participate. This result is significantly lower than the 5% who gave this response in 2007. The respondents who were not using an alternative mode could be explained by the fact that most of these respondents said they were current registrants, thus were not asked directly about their "During-GRH" modes; their "During-GRH" travel was set equal to their current travel. But if these respondents had recently stopped using alternative modes, they might have said they were currently registered, even though they were no longer really eligible for the program.

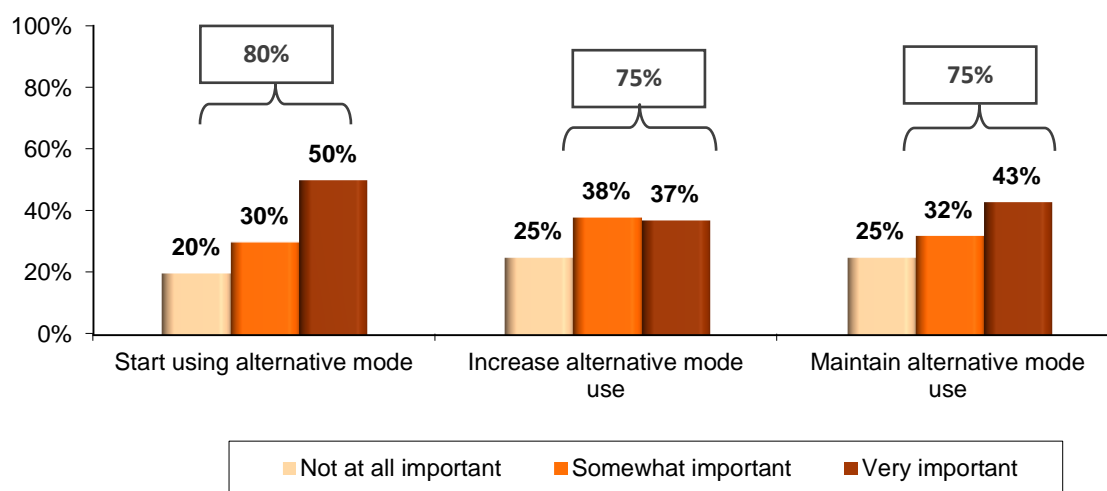
Importance to Decision to Start, Maintain, or Increase Use of Alternatives

For whichever of the three commute pattern categories that applied, respondents were asked how important GRH was to their commute decision.

Start Using Alternative Mode – Results presented in Figure 18 indicate that half (50%) of the respondents who drove alone pre-GRH and started using alternative modes during-GRH said GRH was “very important” to the decision to make the change. Three in ten (30%) said GRH was “somewhat important” to the decision. The remaining 20% said GRH was “not at all important.”

Figure 18
Importance of GRH to Start, Maintain, or Increase Alternative Mode Use

(Start n = 479; Increase n = 70; Maintain n = 1,606)



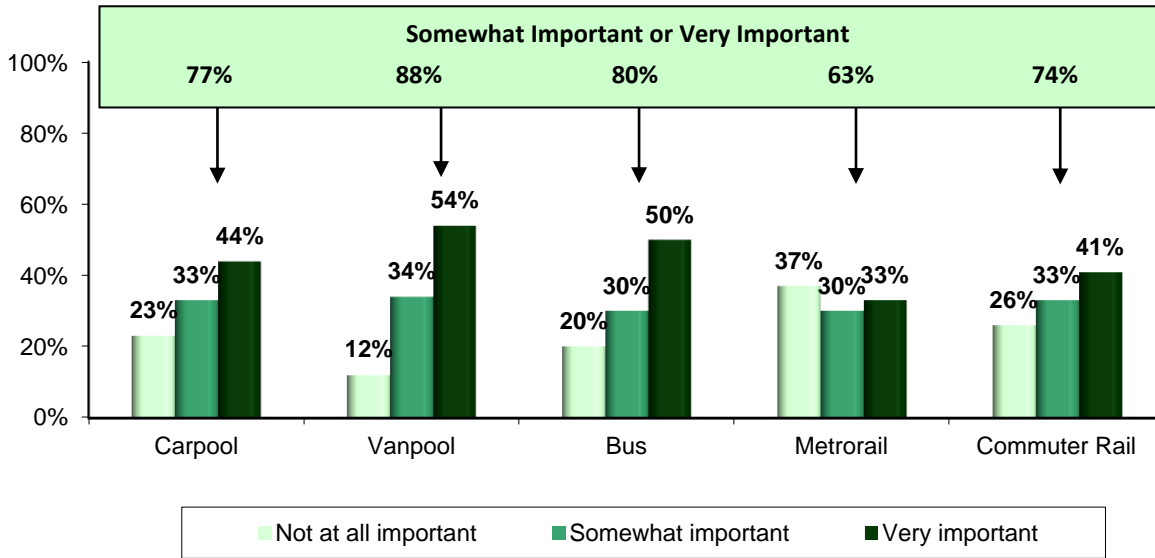
Increase Use of Alternative Mode – Figure 18 also shows GRH’s importance to respondents who increased use of alternative modes. GRH appeared to be slightly less important to this decision than for decisions to start use of alternatives. Three-quarters (75%) of these respondents said it was “very important” or “somewhat important” to this decision, compared with 80% of respondents who started an alternative mode. About 25% said it was “not at all important” to the decision. But the sample for this group is small, relative to the start alternative mode group.

Maintain Use of Alternative Mode – Finally, Figure 18 shows the importance of GRH to respondents’ decisions to continue alternative modes they used before joining GRH. GRH appears to be similarly important for these respondents as for those who increased alternative mode use. About 75% of respondents who maintained alternative mode use said GRH was “very important” or “somewhat important” to their decision.

Importance of GRH to Maintain Alternative Modes by Pre-GRH Alternative Modes – Respondents who were using alternative modes before they joined GRH differed slightly in their perceived value of GRH by the modes they were using pre-GRH. These results are shown in Figure 19.

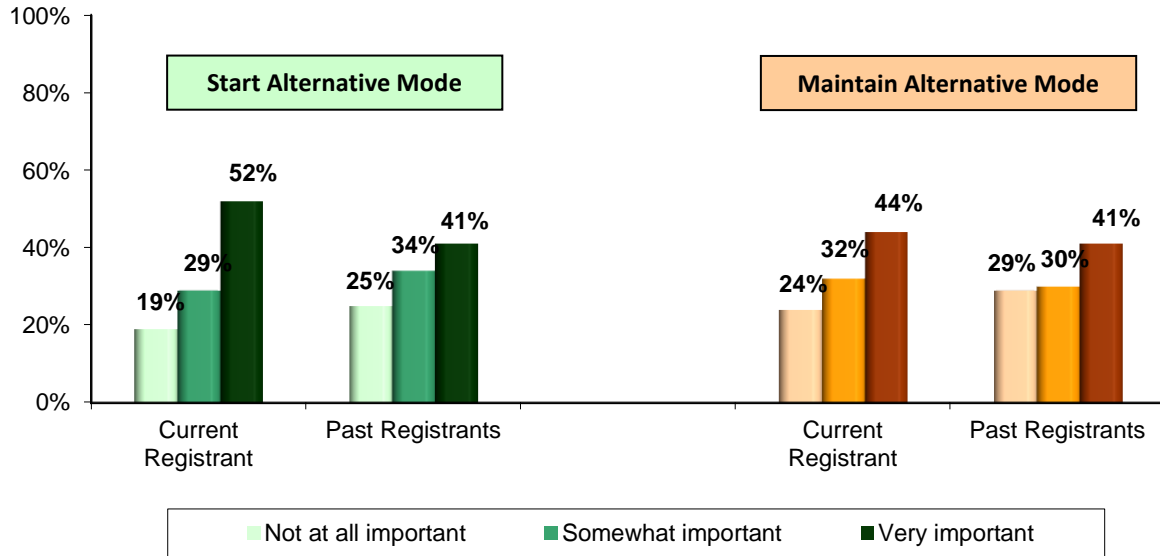
Nearly nine in ten (88%) respondents who were vanpooling pre-GRH said GRH had been somewhat or very important to their decision to continue using this mode. Among carpoolers, bus riders, and commuter rail riders, the share who rated GRH as important is between 74% and 80%. But only about six in ten Metrorail riders rate GRH as important, likely because Metrorail runs at a reasonable frequency all day long, so many Metrorail commuters have an acceptable emergency option even without GRH.

Figure 19
Importance of GRH to Maintain Alternative Mode Use by Alternative Mode used Pre-GRH
 (Carpool n = 310; Vanpool n = 168; Bus n = 414; Metrorail n = 286; Commuter Rail n = 375)



Importance of GRH by Registration Status – Results presented in Figure 20 show the relative importance of GRH to current registrants and past registrants. Among participants who started using an alternative mode, 81% of current registrants rated GRH as either important or very important, while only 75% of past registrants gave these high ratings. But the differences are not statistically significant. Some difference also is noted between current and past registrants who continued using an alternative, but again the results are not statistically significant.

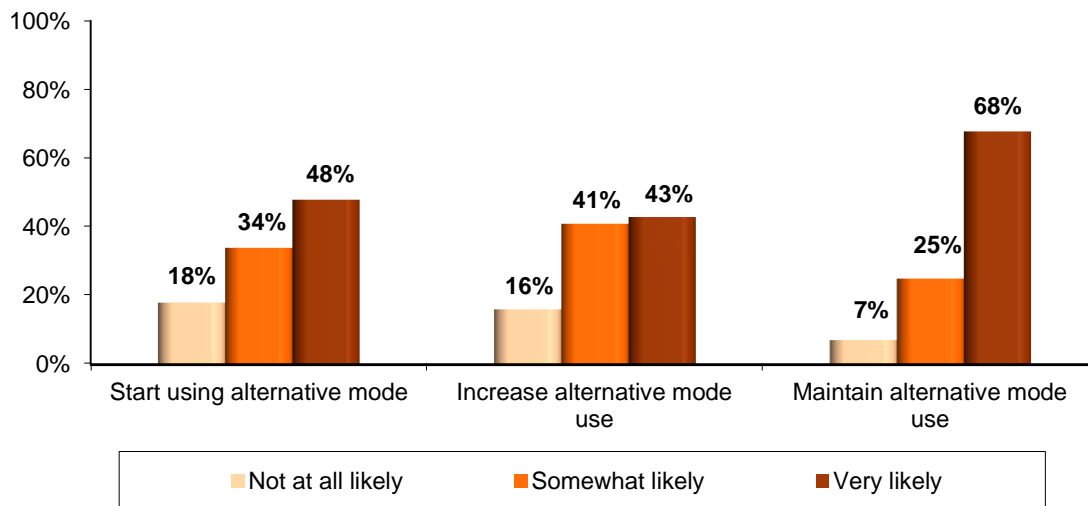
Figure 20
Importance of GRH to Decision to Start or Maintain Alternative Mode by Registration Status – Current or Past
 (Start alternative mode: Current registrants n = 372; Past registrants n = 105)
 (Maintain alternative mode: Current registrants n = 1,207; Past registrants n = 398)



Likelihood to Make Alternative Mode Changes if GRH Not Available

Respondents also were asked if they would have made the same commute pattern decisions if GRH had not been available to them. Figure 21 shows how likely respondents were to have started, increased, or maintained use of alternative modes if GRH had not been available to them.

Figure 21
Likely to Start, Maintain, or Increase Use of Alternative Modes if GRH Not Available
 (Start n = 464; Increase n = 66; Maintain n = 1,572)



Start Using Alternative Mode – More than half (52%) of respondents who started using alternative modes said they were only “somewhat likely” or “not at all likely” to have made the change if GRH had not been available. The remaining 48% said they were “very likely” to have made the change even if they did not have access to GRH. These results are similar to the results from the 2010 survey; 33% of 2010 respondents said they were “somewhat likely” and 16% were “not likely” to have made the change without GRH.

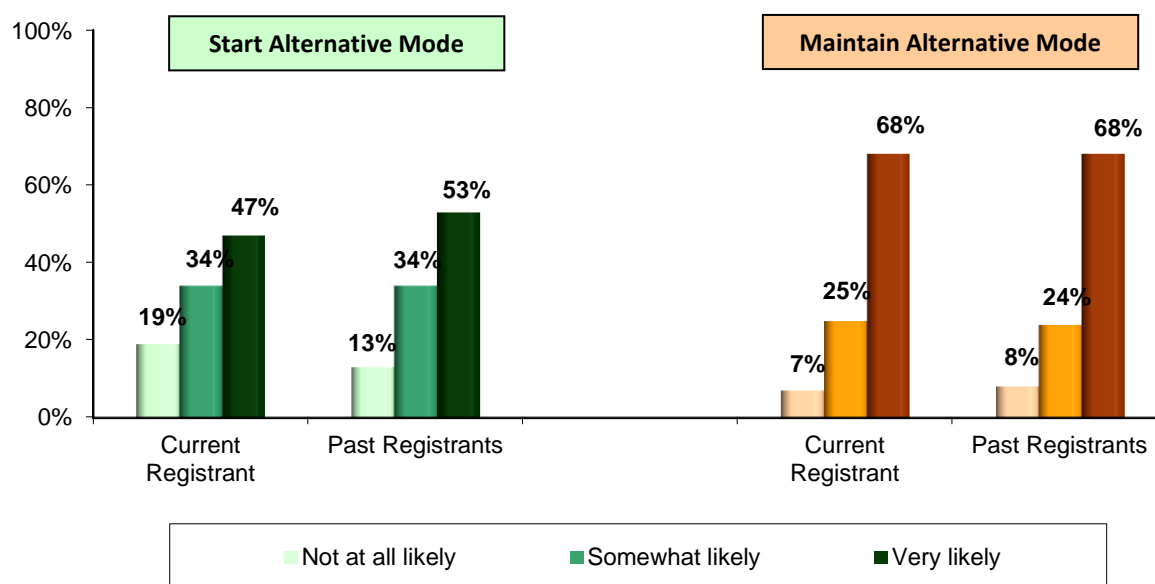
Increase Use of Alternative Mode – A small number of respondents used alternative modes pre-GRH but increased their use of these modes while participating in GRH. GRH seemed to be of similar value to these respondents as to those who started using alternative modes. Sixteen percent were “not at all likely” to have made this change without GRH and 41% were only “somewhat likely” to have made this change.

Maintain Use of Alternative Mode – GRH seem to be less valuable to registrants who were using alternative modes and didn’t make any changes during GRH (maintained alternative mode); 68% said they were “very likely” to have continued in this mode if GRH had not been available. One-quarter (25%) said they were “somewhat likely” to have continued that mode; only 7% were “not likely” to have continued that mode without GRH.

Likelihood to Start or Continue Modes by Registration Status – Finally, Figure 22 shows differences between current and past registrants in likelihood to start or maintain alternative modes without GRH. There are no statistical differences between current and past registrants for their likelihood to start alternative modes or maintain alternative modes. But for both current and past registrants, significantly lower shares of respondents who started alternative modes said they were “very likely” to have made this change without GRH than for respondents who maintained alternative modes.

Figure 22
Likely to Start or Maintain Alternative Modes Without GRH
by Registration Status – Current or Past

(Start alternative mode: Current registrants n = 359; Past registrants n = 103)
(Maintain alternative mode: Current registrants n = 1,181; Past registrants n = 390)



Other Influences Motivating Commute Changes

Figures 18 through 22 presented an apparent contradiction. Despite the high percentage of respondents who rate GRH as “very important” or “somewhat important” to their decisions to use alternative modes, most respondents said they were likely to have made these decisions anyway, implying that GRH was not essential to their decision. These results are consistent with other GRH program evaluations. GRH users typically do rate GRH as a valuable service, but indicate that it is not “the reason” for which they made a change to an alternative mode. They were influenced by a variety of factors, including GRH, but including other factors as well.

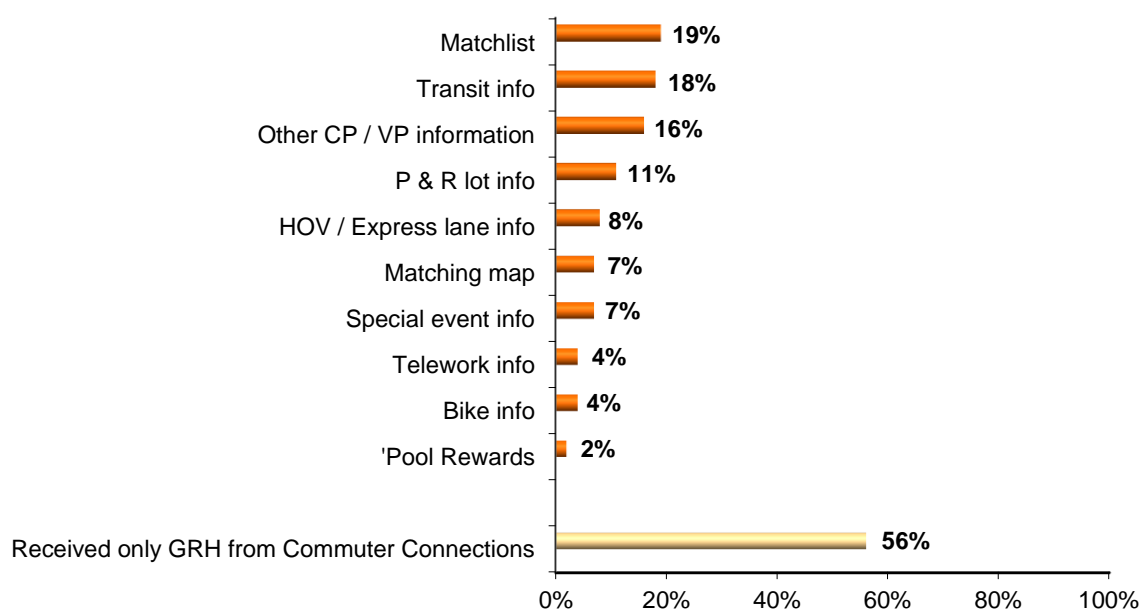
With this in mind, respondents were asked several questions to define other services or factors that could have influenced their mode choice decisions. First, all respondents were asked, “Do you recall receiving or accessing any of the following commute information or assistance services from Commuter Connections, in addition to GRH?” Then respondents who said they had made a commute change were asked three questions:

- Was any of the information or assistance that you received from Commuter Connections more important than GRH to your decision to make this change?
- Did you receive any commute assistance or benefits, in addition to GRH, from any source, that influenced your decision? If yes, what was the assistance or benefit?
- Were any other factors or circumstances important to your decision? If yes, what other factors or circumstances were more important to your decision?

Responses to these questions are presented below:

Other Assistance or Benefits Received from Commuter Connections – Figure 23 lists the services that respondents mentioned receiving from Commuter Connections, in addition to GRH. More than half (56%) said GRH was the only service they received from Commuter Connections. The other 44% noted one or more other services.

Figure 23
Assistance or Benefits Received from Commuter Connections, In Addition to GRH – All Respondents
(n = 2,374)

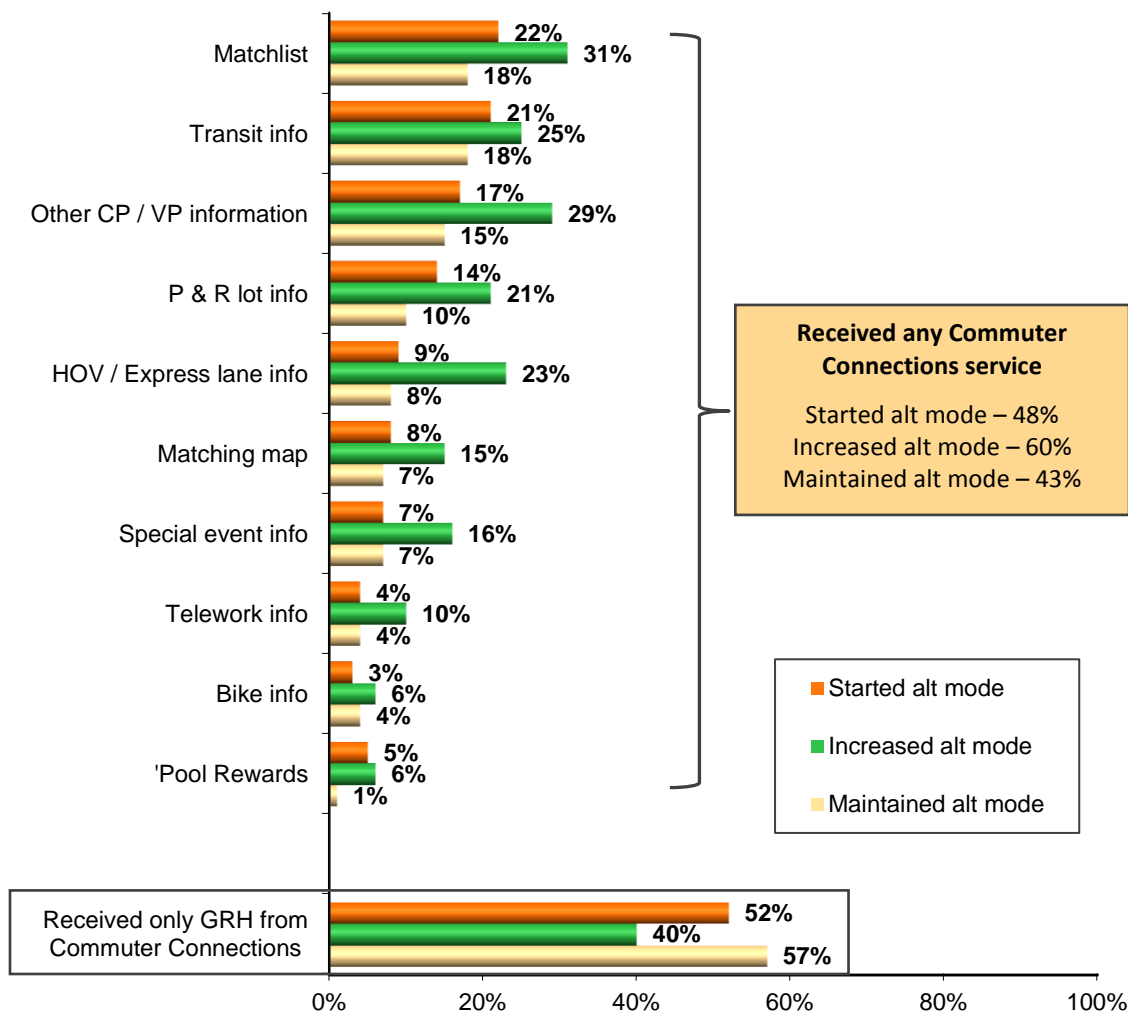


The most common services focused on carpool/vanpool assistance. About two in ten (19%) said they received a matchlist, with names of potential carpool/vanpool partners, 7% received a rideshare matching map, and 16% received “other” carpool or vanpool information. Two in ten (18%) obtained transit route or schedule information and one in ten (11%) received Park & Ride lot information from Commuter Connections. Smaller percentages of respondents mentioned other services: HOV / Express lane information (8%), information on special events such as Bike-to-Work Day (7%), telework information (4%), or bike information (4%).

Figure 24 shows the same services, with respondents divided into groups by the type of commute change they reported from the Pre-GRH to During-GRH time period: Started alternative mode, Increased alternative mode, or Maintained alternative mode (used an alternative mode before GRH and continued in that mode with no change).

Figure 24
Assistance or Benefits Received from Commuter Connections, In Addition to GRH – By Type of Commute Change Made

(Started alt mode n = 494; Increased alt mode n = 70; Maintained alt mode n = 1,662)



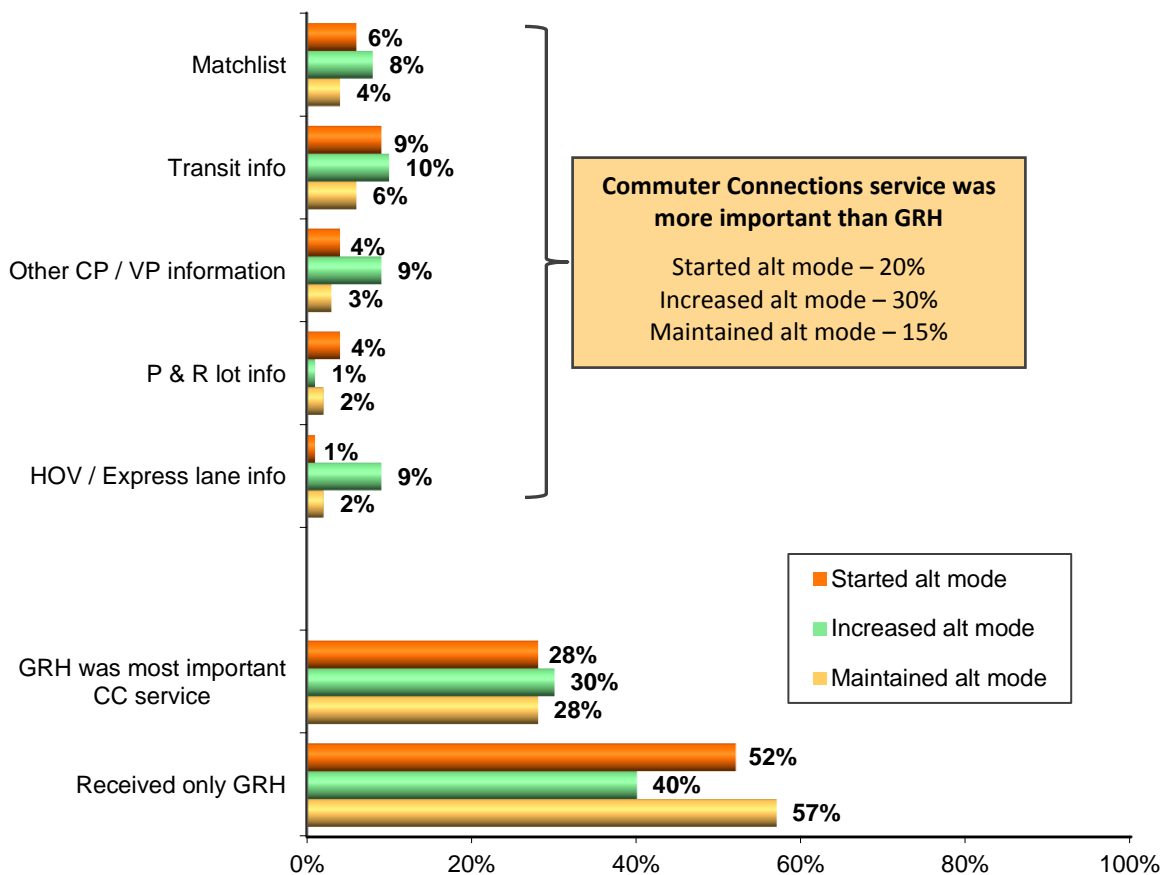
Respondents who reported starting a new alternative mode and those who maintained alternative mode use received non-GRH Commuter Connections services at about the same rate (Started 48% vs Maintained 43%). They

also received most individual services at about the same rate. But respondents who increased alternative modes are much more likely to have received some non-GRH services; 60% mentioned receiving at least one of the non-GRH services presented to them. And they used nearly all individual services at a higher rate than did respondents who either started or maintained alternative mode use. The sample of respondents who increased alternative mode use is small (n = 70) relative to the other groups, but the differences are statistically significant for all individual services except transit information and bike information.

Commuter Connections Assistance or Benefits that are More Important than GRH – Respondents who received Commuter Connections services were asked if any of the services had been more important than GRH in influencing their decision to start, increase, or maintain use of alternative modes. Figure 25 presents these results.

Figure 25
Commuter Connections Assistance or Benefits – More Important than GRH to Mode Decisions

(Started alt mode n = 494; Increased alt mode n = 70; Maintained alt mode n = 1,662)



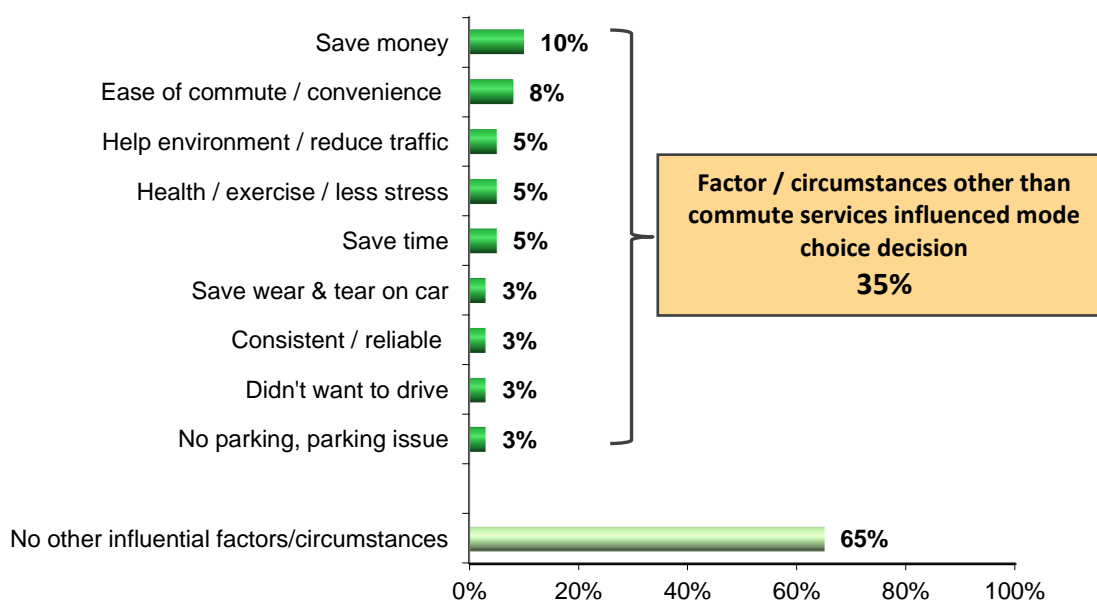
As noted earlier, some respondents said the only Commuter Connections service they have received is GRH (Started alt mode – 52%, Increased – 40%, Maintained – 57%). But even among respondents who did receive other Commuter Connections services, most said GRH was the most important of these services (Started – 28%, Increased – 30%, Maintained – 28%). Accounting for these two groups, this leaves relatively small shares of respondents who mentioned another Commuter Connections service that was more important than GRH. Two in ten respondents who started an alternative mode and three in ten who increased alternative mode use reported a

Commuter Connections service that was more important than GRH. Among those who maintained alternative mode use, with no changes, only 15% cited a service that was more important than GRH.

Influential Assistance or Benefits Received from Another Organization – Respondents also were asked about services they received from another organization that influenced their mode choice decisions. About four in ten (37%) mentioned a service that had influenced their decision. Nearly all of these respondents (33% of 37%) said the influential service was a transit pass, transit subsidy, or pre-tax payroll deduction for commute travel costs.

Other Factors or Circumstances That Influenced Decision – Respondents also were asked if any other factors or circumstances, other than GRH and other than the assistance or benefits mentioned above, had been important to their mode choice decision. As shown in Figure 26, 65% said that no other factors or circumstances influenced their decision, but 35% mentioned one or more other factors.

Figure 26
Other Factors/Circumstances Important to Decision to Make a Change in Alternative Modes
(n = 2,374, multiple responses permitted)



About one in ten respondents said a desire to save money (10%) or have an easier or more convenience commute (8%) influenced their decision. And one in twenty said a desire to help the environment or reduce traffic (5%), get exercise / reduce stress (5%), or save time (5%) influenced them.

USE OF AND SATISFACTION WITH GRH

Characteristics of Participants Who Used GRH Trips

Used GRH Trip by Registration Status – As shown in Table 10, 31% of all respondents surveyed said they had taken a GRH trip. This was about the same as the 33% reported in 2010, but significantly higher than the 23% result in 2007. Current registrants have used GRH trips at a higher rate than have past registrants. This could be because current registrants have been participating in GRH for a longer time period than past registrants. Thus, they have had a longer time in which to encounter a situation in which they would need a GRH trip.

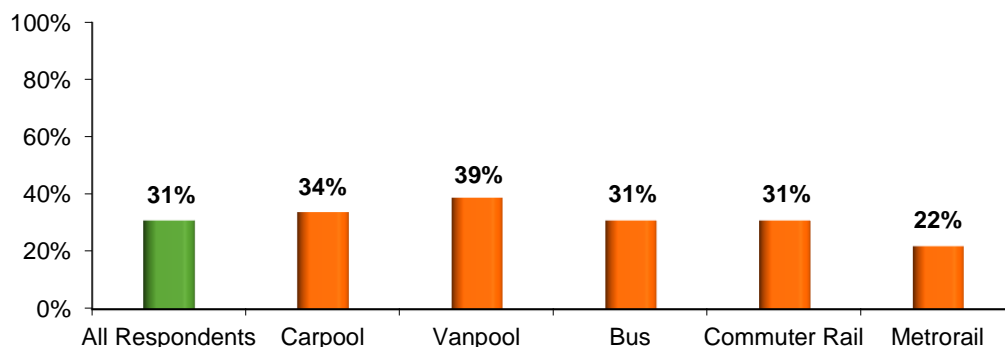
Table 10
Used GRH Trip
All Respondents, Current Registrants, and Past Registrants

Taken a GRH Trip	All Registered Respondents (n = 2,345)	Current Registrants (n = 1,758)	Past Registrants (n = 584)
Yes	31%	33%	25%
No	69%	67%	75%

Used GRH Trip by During-GRH Modes – Figure 27 compares use of GRH by five “During-GRH” mode groups: carpool, vanpool, bus, commuter rail, and Metrorail. Carpoolers and vanpoolers are more likely to have used a GRH trip than are transit riders. Metrorail riders have the lowest usage; only 22% of these respondents have taken a GRH trip.

Figure 27
Used GRH Trip by Primary Mode Used During-GRH

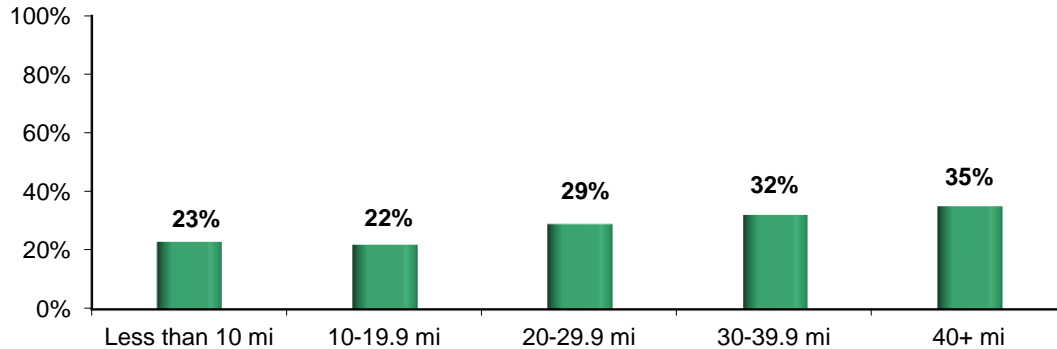
(All respondents n = 2,345; Carpool n = 360; Vanpool n = 334; Bus n = 703; Commuter rail n = 533; Metrorail n = 283)



Used GRH Trip by Commute Distance – Figure 28 presents a comparison of the use of GRH by the commute distance of respondents. The average one-way distance of a respondent who used a GRH trip is 38.0 miles one-way, compared to 34.7 miles for all GRH respondents overall. Respondents who have the shorter commutes, less than 10 miles or between 10 and 19.9 miles one-way, are less likely to use a trip (23% and 22%, respectively) than are respondents in longer-distance groups. About three in ten (29%) respondents who travel between 20 and 29 miles have taken a trip. Among respondents who travel 30 or more miles, GRH use is even higher. This suggests that registrants with shorter commutes find another travel option in the case of an emergency, such as a being driven by a co-worker or taking public transportation or a taxi, for which they pay themselves.

Figure 28
Used GRH Trip by Commute Distance (miles)

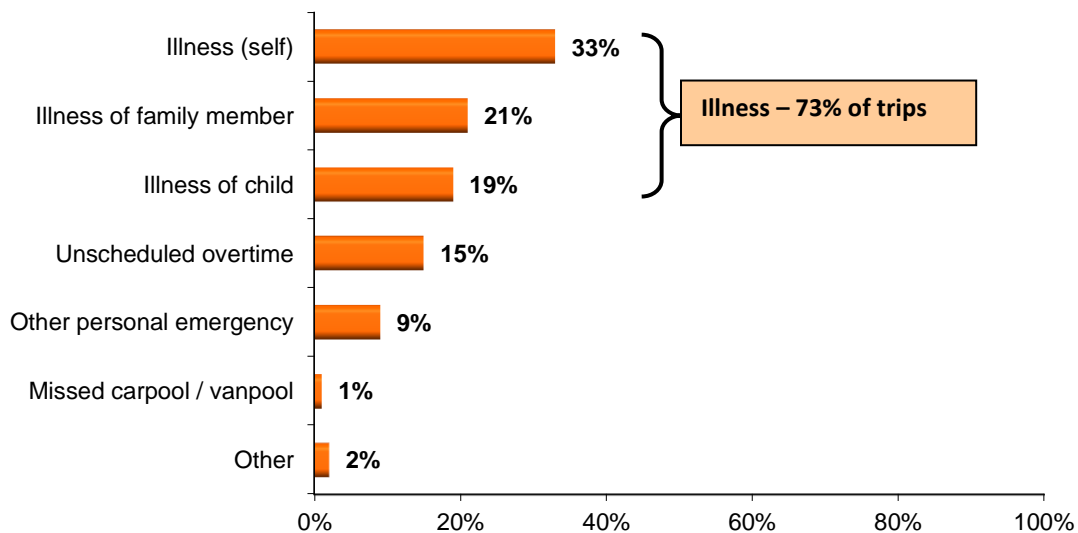
(Less than 10 mi n = 188; 10-19.9 mi n = 257; 20-29.9 mi n = 437; 30-39.9 mi n = 515; 40 mi or more n = 890)



Reasons for Taking GRH Trip

Figure 29 lists the reasons for which participants used the service. If respondents had taken more than one trip, they were asked to report on the reason for their most recent trip. Nearly three-quarters of all GRH trips were taken to address an illness: respondent (33%), another family member (21%), or a child (19%). Unscheduled overtime (15%) and other personal emergency (9%) were the two other common reasons.

Figure 29
Reason for Taking Most Recent GRH Trip
(n = 701)



Satisfaction With the Trip

Participants, who had taken a GRH trip were asked if the service was satisfactory. The overwhelming majority (93%) said they were satisfied. The primary reasons given by the unsatisfied respondents include: waited too long (25 respondents), didn't like the taxi driver (9 respondents), hard to get approval (5 respondents).

As shown in Table 11, respondents waited an average of 16 minutes for a taxi, one minute less than the time calculated for the 2010 survey and the same time as for the 2007 survey. In 2013, more than half (51%) said the taxi arrived within 10 minutes and more than eight in ten (84%) respondents waited 20 minutes or less.

Table 11
Time Waited for Taxi

(n = 618)

Wait Time	Percentage	Cumulative Percentage
5 minutes or less	23%	23%
6 to 10 minutes	28%	51%
11 to 20 minutes	33%	84%
21 to 30 minutes	9%	93%
31 to 45 minutes	2%	95%
46 or more minutes	5%	100%

Desired Improvements to the GRH Program

Participants appear to be generally quite satisfied with the GRH Program. Twelve percent of respondents said no improvement is necessary for the GRH program. An additional 58% of participants did not provide any suggestions for improvements. The remaining 30% mentioned the suggestions detailed in Table 12.

The most frequently mentioned improvement is more advertising or more program information, named by 11% of respondents, about the same percentage as mentioned it in 2010 (13%). Seven percent said they thought the program rules should be relaxed / less restrictive. All other responses were cited by fewer than 5% of respondents and the results were consistent with the results of the 2010 survey.

There were two statistical differences in the improvements desired by current registrants versus past registrants. Current registrants were less likely than past registrants to mention that GRH should advertise more (Current 10% vs. Past 13%). Current registrants also were much less likely than were past registrants to suggest renewal reminders (Current 2% vs Past 9%).

Table 12
Suggested Improvements to GRH Program
 (n = 2,374)

Desired Improvement	Percentage*
More advertising / more program information	11%
Relax conditions / supervisor approval	7%
Send annual e-mail reminder for renewal	4%
Quicker response for ride requests	2%
Improve dispatching (faster, nicer)	2%
Extend the hours	2%
Easier/faster approval / online registration	1%
GRH drivers more knowledgeable about program	1%
Better communication with driver	1%
Other	5%
No improvement needed	12%
Don't know / no suggestions provided	58%

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

** Each other response was mentioned by fewer than one percent of respondents

SECTION 4 – CONCLUSIONS

This section of the report presents major conclusions from the analysis of the GRH survey. Conclusions are provided for the following topics:

- Program participation findings
- Impact of GRH on commute patterns
- Implications of results for travel and air quality assessment
- Program marketing findings

Program Participation Findings

Several results related to program participation are notable, as summarized below:

- The GRH program continues to attract participants but also retains many participants. A third of current registrants have been registered for one year or less, but about half (49%) have been participating for more than three years.
- About half of total respondents were no longer registered for the GRH program (past registrants). However, 50% of respondents whose registrants had expired and were listed as past registrants in the database thought they were still registered. Responses to a later question suggest many of these respondents did not realize they needed to re-register each year, so assumed they were still eligible for the program
- Past registrants left the program for two types of reasons: reasons associated with characteristics of the program and reasons associated with personal circumstances of the registrants. The most frequently mentioned program reasons were that the respondents didn't know they had to re-register (23%) and that they hadn't gotten around to it/forgot, mentioned by 22% of past registrants. These also were common reasons noted in 2010 and 2007, indicating it is still important to remind registrants that re-registration is required.
- Seven percent said they "had problems/difficulties re-registering." This could be related to the shift to the online system, which requires respondents to recall a password to make changes to their accounts. Six percent were "dissatisfied with the program/had a bad experience."

Impact of GRH on Commute Patterns

The GRH survey was designed to examine three key questions: Did the GRH Program:

- Encourage commuters who drive alone to work to use alternative modes, such as transit and carpool?
- Encourage commuters who use alternative modes to use these modes more days per week?
- Encourage commuters who use alternative modes to use them for a longer period of time?
- **Shifts from Drive Alone to Alternative Modes** – The survey clearly showed that some commuters who registered for GRH were driving alone prior to joining the program. About 24% of respondents said they primarily drove alone to work before starting GRH. The remaining 76% of participants used alternative modes as their primary type of transportation before they joined the program.
- **Increase Use of Alternative Modes** – It is difficult to draw definitive conclusions on the role of GRH in encouraging more frequent use of alternative modes, because only 70 of the total respondents increased the number of days they used alternative modes. The low respondent number is not necessarily indicative of GRH's value for this type of change, however. Nearly all participants who were using an alternative pre-GRH already did so three or four days per week. In other words, a large majority of participants already were using alternative modes nearly full-time.

But among the small sample of respondents who did increase the number of days they used alternative modes, the results were notable; these respondents increased their alternative mode frequency from 3.0 days to 4.6 days, or about 1.6 days per week increase per respondent.

- **Extending the Duration of Alternative Mode Use** – Almost half (46%) of GRH participants said they had used their current alternative mode for five years or longer and 77% have used this mode for two years or more. The average time using the alternative mode is about 68 months.

This duration was considerably shorter duration than the 90 months average for all regional commuters, based on data from the 2013 State of the Commute survey. About 26% of regional commuters said they have used their current alternative mode for less than two years, but 31% of regional commuters have been using their alternative mode ten years or more, compared with 18% of GRH registrants.

- **Role of GRH in Motivating Change** – The majority of respondents said that the GRH Program was important to their decision to start, maintain, or increase use of alternative modes. But conversely, the majority of respondents also said they were likely to have made the same commute decisions even if GRH were not available. This suggests that GRH is a useful and even valuable service, but not “the reason” that commuters choose alternative modes.

GRH seemed to have very modest impact in retaining respondents who were using an alternative pre-GRH and did not increase their alternative mode use. Only about 7% said they were “not at all likely” to have continued using these modes if GRH were not available. By contrast, 18% of respondents who started using a new alternative mode and 16% who increased alternative mode use said they were not likely to have made the change without GRH.

More than half (56%) of all respondents said GRH was the only Commuter Connections service they received. But even among respondents who did receive other Commuter Connections services, about half said GRH was the most important Commuter Connections service. Only two in ten respondents who started an alternative mode and three in ten who increased alternative mode use reported a Commuter Connections service that was more important than GRH. Among those who maintained alternative mode use, with no changes, only 15% cited a service that was more important than GRH.

Implications of Results for Travel and Air Quality Impact Assessment

An important role of the survey was to collect data to support the upcoming TERM evaluation, scheduled to be performed in the spring of 2014. Several of the findings have specific implications for the assessment of travel and air quality impacts of GRH in that evaluation. These findings include:

- A positive finding is that the average duration of alternative mode use, 68 months, is considerably longer than three years. This means that congestion mitigation and air quality improvement benefits of GRH extend longer than the three year evaluation period, thus it might be reasonable to carry over benefits from one evaluation period to the next. Additionally, the average time using an alternative mode appears to be increasing over time. The 2010 GRH survey calculated an average duration of alternative mode use of just 46 months, thus GRH might be retaining alternative mode users more than the other survey results suggest.
- Another finding related to impact assessment is that the benefit from participants who increase their use of alternatives is likely to be small. Although some benefit is achieved by this increase, only three percent of participants fall into this category and the average increase was only 1.6 days per week, so the overall impact will be minimal.

- Finally, an interesting finding is that nearly seven in ten past registrants continue to use alternative modes, even though they are no longer registered. Seventeen percent are still carpooling or vanpooling and 42% continue to use transit. Thus, the region does not lose the air quality and congestion mitigation benefit of these participants, even after they leave the program.

Program Marketing Findings

Finally, several survey results relate to program marketing. These conclusions are summarized below:

- Program marketing seems to be an effective source of information for GRH. Nearly six in ten respondents said they had heard or seen some form of GRH advertising. And a third of total survey respondents said they had not registered before hearing or seeing the ads and that the ads had encouraged them to register.

Awareness of advertising seems to have increased since 2010, but the current 57% level is still below the awareness reported in earlier GRH surveys. More than six in ten (62%) of respondents who registered before 2008 had heard or seen advertising, compared to 59% of respondents who registered between 2008 and 2009 and 52% of those who registered in 2010 or 2011.

- The results also showed the need for multiple outreach channels. Word of mouth continues to be the predominant method by which respondents learned of GRH, but radio, Internet, employer, and employer / employee survey, bus/train signs, and other rideshare/transit organizations all were noted by at least five percent of respondents as their first information source about GRH.
- Radio might be particularly important marketing tools to reach drive alone commuters. Sixteen percent of respondents who drove alone and the same share of those who carpooled/vanpooled to work pre-GRH mentioned radio as their source of information, compared with about one in ten other respondents. Registrants who carpooled or vanpooled before GRH were more likely to note "word of mouth" as their source; 38% gave this as their source, compared with about three in ten other respondents.

APPENDICES

APPENDIX A – DISPOSITION OF FINAL DIALING RESULTS

APPENDIX B – SURVEY QUESTIONNAIRE

APPENDIX C – RESPONDENT ALERT LETTERS

**APPENDIX D – RESULTS FROM 2013, 2010, 2007, 2004 AND 2001 GRH SURVEYS - COMPARISON
ON KEY QUESTIONS**

APPENDIX A**DISPOSITION OF FINAL DIALING RESULTS**

Dialing Disposition at Conclusion of Survey	Telephone Survey		Telephone Survey for Internet Non-Response	
	No.	Percent	No.	Percent
Completed Interviews	106	7.9%	67	18.9%
No Answer	62	4.6%	22	6.2%
Answering Machine	681	50.6%	145	41.0%
Busy	38	2.8%	1	0.3%
Arranged Call Back	156	11.6%	28	7.9%
Respondent Never Available	3	0.2%	3	0.8%
Not In Service	225	16.7%	31	8.8%
Fax	3	0.2%	4	1.1%
Refused	50	3.7%	53	15.0%
Respondent Terminated	2	0.2%	-	-
Language Not English	1	0.1%	-	-
Both Numbers Wrong	3	0.2%	-	-
Wrong Work Number	2	0.2%	-	-
Respondent Screened Out (Q8)	14	1.0%	-	-
	1,346	100.0%	354	100.0%
Total Dialings		2,883		354
Average Number of Dialings Complete:	Per	27.2		5.3

APPENDIX B - SURVEY QUESTIONNAIRE

MWCOG 2010 Guaranteed Ride Home Survey - Internet Version

INTRODUCTION

Commuter Connections is conducting this online survey of commuters who have registered for or participated in Commuter Connections' Regional Guaranteed Ride Home (GRH) program. Your answers will be confidential. It will take about ___ minutes. Please complete the survey and click on the "SUBMIT" button at the end. If you need to stop before you have finished the survey, your answers will be saved and you may come back and complete the remaining questions at a later time. Thank you for your participation

REGISTRATION INFORMATION

Q1. In what year did you first register for Commuter Connections' GRH program?

- 1 Before 2008 **(SKIP TO Q2)**
- 2 2008 **(SKIP TO Q2)**
- 3 2009 **(SKIP TO Q2)**
- 4 2010 **(SKIP TO Q2)**
- 5 2011 **(SKIP TO Q2)**
- 6 2012 **(SKIP TO Q2)**
- 7 2013 **(SKIP TO Q2)**
- 8 Never registered, don't recall registering **(SKIP TO Q3)**
- 9 Don't remember/don't know year registered

Q1a Do you recall that you did register for the GRH program at some time?

- 1 Yes **(CONTINUE TO Q2)**
- 2 No **(RECODE Q1 = 8, THEN SKIP TO Q3)**
- 9 Don't know **(RECODE Q1 = 8, THEN SKIP TO Q3)**

Q2 Are you currently registered for Commuter Connections' GRH program?

- 1 Yes **(SKIP TO Q6)**
- 2 No **(SKIP TO Q4)**
- 9 Don't know **(SKIP TO Q4)**

Q3 Have you ever taken a GRH trip provided by Commuter Connections' GRH program?

- 1 Yes
- 2 No **(THANK and TERMINATE)**

Q3a For what reason did you not register for the GRH program after you took this one-time GRH trip?

OPEN ENDED _____

SKIP TO Q8

Q4 How long were you registered in the GRH program?

- 1 Less than 1 year
- 2 1 year
- 3 2 years
- 4 3 years
- 5 More than 3 years
- 9 Don't remember/don't know

Q5 Why did you not re-register when your registration expired?

OPEN ENDED _____

Q6 Did you participate in another GRH program before registering for Commuter Connections' GRH program?

- 1 Yes (**ASK Q7**)
- 2 No (**SKIP TO Q8**)
- 9 Don't know (**SKIP TO Q8**)

Q7 Who offered/sponsored that program?

- 1 My employer
- 2 County or city government (please specify) _____
- 3 VRE
- 9 Other _____

CURRENT COMMUTE PATTERNS (Asked of all respondents)

Q8 Next, think about your travel to work. First, in a TYPICAL week, how many weekdays (Monday-Friday) are you assigned to work?

- 1 1 day per week
- 2 2 days per week
- 3 3 days per week
- 4 4 days per week
- 5 5 days per week

Q10 Which of the following best represents your work schedule? (**SHOW RESPONSES ON SCREEN**)

1. Full-time, 5 days per week, 35 or more hours per week
2. Part-time (less than 35 hours per week)
3. 4/40 compressed schedule (four 10-hour days per week, 40 hours)
4. 9/80 compressed schedule (9 days every 2 weeks, 80 hours)
5. 3/36 compressed schedule (three 12-hour days per week, 36 hours)
- 9 Other (SPECIFY) _____

Q10a Do you telecommute or telework. 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 Q10c)**
- 9 Don’t know **(SKIP TO Q10c)**

Q10b How often do you usually telecommute?

- 1 1 day a week
- 2 2 days a week
- 3 3 days a week
- 4 4 days a week
- 5 5 or more days a week
- 6 occasionally for special projects
- 7 Less than one time per month/only in emergencies
- 8 1-3 times a month
- 9 other (SPECIFY) _____
- 19 Don’t know

Q10c In a typical week, how often are you away from your usual work location **for an entire day** for business / work travel (e.g., meetings/ visits to clients or customers)?

- 1 Never, I don’t ever travel for work
- 2 Occasionally, but less than 1 day per week
- 3 Regularly, 1 or more days per week
- 9 Don’t know

Q14 Thinking about a TYPICAL week, how do you get to work, Monday through Friday? In the table below, enter the number of weekdays you typically use each of the listed types of transportation. If you use more than one type on a single day (e.g., walk to the bus stop, then ride the bus), count only the type you use for the **longest distance part** of your trip.

IF Q10c = 3, ALSO SHOW: “For days that you typically would be on business / work travel, please report the type of transportation you would use to get to work if you worked at your usual work location.”

Indicate also how many weekdays you do NOT travel to your usual work location and the reasons (e.g., regular day off, telecommute, compressed work schedule day off) for not traveling to work.

PROGRAMMER NOTES:

CHECK SUM OF DAYS. IF TOTAL NOT EQUAL TO 5, SHOW MESSAGE: “Please report for all days Monday – Friday, including days you do not work.”

IF Q10 = 3, 4 OR 5 AND RESPONDENT DOES NOT CHECK "CWS day off" (RESPONSE 1), SHOW MESSAGE “You said you typically work a compressed work schedule. How many compressed schedule days do you typically have off in a week?” **ACCEPT 0 AS VALID RESPONSE**

IF Q10b = 1, 2, 3, 4, OR 5 AND RESPONDENT DOES NOT CHECK "Telecommute" (RESPONSE 2), SHOW MESSAGE: “You said you typically telework. How many days do you telework in a typical week? **ACCEPT 0 AS VALID RESPONSE**

Type of Transportation	Number of Days Used (0 to 5)
Days you travel to your usual work location	
3 Drive alone in a car, truck, van, or SUV	
4 Motorcycle	
5 Carpool, including carpool w/family member, dropped off (ride or drive with others in a car, truck, van, or SUV)	
6 Casual carpool (slugging)	
7 Vanpool	
8 N/A Not used	
9 Bus (public or private bus, shuttle, or buspool)	
10 Metrorail	
11 MARC (MD Commuter Rail)	
12 VRE	
13 AMTRAK / other train	
14 Bicycle (entire trip from home to work)	
15 Walk (entire trip from home to work)	
16 Taxi	
Days you do not travel to your usual work location	
1 Compressed work schedule day off	
2 Telecommute/telework all day	
17 Regular day off	
21 Other (describe) _____	
Total Days	Sum of 1-21

IF Q14 = 5, 6, OR 7 (carpool or vanpool), ASK Q14a, OTHERWISE SKIP TO DEFINE CALTDAYS

Q14a Including yourself, how many people usually ride in your carpool or vanpool? (IF MORE THAN ONE ANSWER IN Q14, SELECT ONE USING THIS PRIORITY: vanpool, carpool, casual carpool.)

_____ total people in pool

DEFINE CALTDAYS (days currently using alternative modes)

CALTDAYS = TOTAL Q14 DAYS USING MODES 5, 6, 7, 9, 10, 11, 12, 13, 14, 15

DEFINE CMCA (Current Most Common Alternate)

Set CMCA using Q14 alt mode used most days (responses 5, 6, 7, 9, 10, 11, 12, 13, 14, 15)

IF CALTDAYS = 0, SET CMCA = 99 (no MCA)

IF CALTDAYS > 0, SET CMCA AS FOLLOWS:

IF GREATEST NUMBER OF Q14, RESPONSES 5-15 =

Q14_05, SET CMCA = 05 (Carpool)

Q14_06, SET CMCA = 06 (Casual Carpool / Slug)

Q14_07, SET CMCA = 07 (Vanpool)

Q14_09, SET CMCA = 09 (Bus)

Q14_10, SET CMCA = 10 (Metrorail train)

Q14_11, SET CMCA = 11 (MARC train)

- Q14_12, SET CMCA = 12 (VRE train)
 Q14_13, SET CMCA = 13 (AMTRAK / Other train)
 Q14_14 SET CMCA = 14 (Bicycle)
 Q14_15 SET CMCA = 15 (Walk)

IF TIE FOR MOST DAYS USED, SELECT IN THIS ORDER: VANPOOL, CARPOOL, BUS, VRE, MARC, METRORAIL, AMTRAK, CASUAL CARPOOL, BIKE, WALK.

DEFINITION OF REGISTRATION STATUS (GRHTYPE)

- IF Q1 = 1, 2, 3, 4, 5, 6, 7, OR 9 AND Q2 = 1 AND CALTDAYS > 0, GRHTYPE = 1 (CURR_REG)
 IF Q1 = 1, 2, 3, 4, 5, 6, 7, OR 9 AND Q2 = 1 AND CALTDAYS = 0, GRHTYPE = 2 (PAST_REG)
 IF Q1 = 1, 2, 3, 4, 5, 6, 7, OR 9 AND Q2 = 2 OR 9, GRHTYPE = 2 (PAST_REG)
 IF Q1 = 8 AND Q3 = 1 AND CALTDAYS = 0, GRHTYPE = 2 (PAST_REG)
 IF Q1 = 8 AND Q3 = 1 AND CALTDAYS > 0, GRHTYPE = 3 (ONE_TIME)

IF CALTDAYS > 0, SKIP TO Q15

IF CALTDAYS = 0 (Q14 = ONLY 1, 2, 3, 4, 16, 17, AND 21), ASK Q14b

IF CALTDAYS = 0 AND Q2 = 1, START Q14b WITH "You said you're currently registered for the GRH Program but you drive alone all the days you travel to work,"

Q14b <You said you're currently registered for the GRH Program but you typically drive alone all the days that you travel to work.> Do you occasionally use any of the following types of transportation to get to work? (Check all that apply) **(DO NOT ALLOW MULTIPLES WITH RESPONSE 5)**

- 1 Carpool or casual carpool (slug)
- 2 Vanpool
- 3 Bus or train
- 4 Bike or walk
- 5 Don't use any of these modes

Q15 About how many miles do you usually travel from home to work one way? **(ALLOW DECIMALS)**

_____ miles one way

Q16 And about how many minutes does it take you to get to work?

_____ minutes

Q16a At what time do you typically arrive at work?

- 1 12:00 am (midnight) – 5:59 am
- 2 6:00 am – 6:59 am
- 3 7:00 am – 7:59 am
- 5 8:00 am – 8:59 am
- 7 9:00 am – 9:59 am
- 9 10:00 am – 2:59 pm
- 10 3:00 pm – 6:59 pm
- 11 7:00 pm – 11:59 pm
- 99 Don't know

Check sum of days using Personal vehicle (DA, CP, VP, Taxi) – Show different form of Q16b question depending on sum of vehicle days

IF SUM OF (Q14_3 + Q14_4 + Q14_5 + Q14_6 + Q14_7 + Q14_16) = 4 OR 5, INSERT V1 “What major roads do you use on your trip to work?”

IF SUM OF (Q14_3 + Q14_4 + Q14_5 + Q14_6 + Q14_7 + Q14_16) = 1, 2, OR 3, INSERT V2, “On days that you drive or ride to work in a personal vehicle, what major roads do you use?”

IF SUM OF (Q14_3 + Q14_4 + Q14_5 + Q14_6 + Q14_7 + Q14_16) = 0, INSERT V3, “If you were to drive to work, what major roads would you use?”

Q16b V1 – “What major roads do you use on your trip to work?”

V2 – “On days that you drive or ride to work in a personal vehicle, what major roads do you use?”

V3 – “If you were to drive to work, what major roads would you use?”

THEN SHOW FOR ALL RESPONDENTS:

“What Interstate highways or major U.S. or state roads?”

DROP DOWN BOX FOR INTERSTATES

“What major state or US routes?”

DROP DOWN BOX FOR MAJOR STATE / US ROUTES

“Any other major county or city roads?”

OPEN-ENDED WRITE-IN BOX FOR OTHER ROADS

DROP DOWN BOX FOR Interstates

- 1 Capital Beltway (I-495) (MD)
- 2 Capital Beltway (I-495) (VA)
- 3 I-66 OUTSIDE the Beltway (VA)
- 4 I-66 INSIDE the Beltway (VA)
- 5 I-95 (MD)
- 6 I-95 (VA)
- 7 I-270 (MD)
- 8 I-295 (DC / MD)
- 9 I-395 (VA)
- 10 I-695 (DC - Southeast-Southwest Freeway)

DROP DOWN BOX FOR Major State / US Routes

- 11 BW Parkway (US 295, Baltimore-Washington Parkway - MD)
- 12 Dulles Toll Road (Dulles Greenway, Route 267)
- 13 GW Parkway (George Washington Parkway)
- 14 ICC (Inter-County Connector, Route 200)
- 15 US Route 1 (Maryland)
- 16 US Route 1 (Virginia - Richmond Highway, Jefferson Davis Highway)
- 17 US Route 29 (Maryland - Colesville Road, Columbia Pike)
- 18 US Route 29 (Virginia – Lee Highway)
- 19 US Route 50 (Maryland – John Hanson Highway)
- 20 US Route 50 (Virginia – Lee Jackson Highway, Arlington Blvd, Fairfax Blvd)
- 21 US Route 301 (Maryland)

Major Co/City roads – Open-ended – Coded in post-processing

- 22 Braddock Road (Route 620 - VA)
- 23 Branch Avenue (Route 5 - MD)
- 24 Canal Road, Cabin John Parkway (DC)
- 25 Central Avenue (Route 214 - MD)
- 26 Chain Bridge Road (VA Route 123)
- 27 Clara Barton Parkway (MD)
- 28 Columbia Pike (Route 244 - VA)
- 29 Connecticut Avenue (Route 185 – DC / MD)
- 30 Dolley Madison Blvd (Route 123 - VA)
- 31 Fairfax County Parkway (Route 7100, State Route 641 Route 286- VA)
- 32 Georgia Avenue (Route 97 - DC / MD)
- 33 Indian Head Highway (Route 210 - MD)
- 34 Leesburg Pike (Route 7 - VA)
- 35 Little River Turnpike (Route 236 - VA)
- 36 MacArthur Blvd (DC / MD)
- 37 New York Avenue (US Route 50 - DC)
- 38 North Capitol St (DC)
- 39 Pennsylvania Avenue (Route 4 – DC / MD)
- 40 Reston Parkway (VA)
- 41 Rhode Island Avenue (Route 1 - DC)
- 42 River Road (Route 190 – DC / MD)
- 43 Rockville Pike (Route 355 - MD)
- 44 Route 28 (Sully Road - VA)
- 45 Route 28 (MD)
- 46 Suitland Parkway (MD – MD 337)
- 47 Wisconsin Avenue (DC / MD)
- 48 16th Street (DC)

- 99 Other (specify) _____

IF CMCA = 99 (no alt mode), SKIP TO INSTRUCTIONS BEFORE Q21
IF CMCA = 5, 6, 7, 9, 10, 11, 12, 13, 14, OR 15, CONTINUE WITH Q17

Q17 About how long have you been using < CMCA > for your trip to work?

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

INSTRUCTIONS BEFORE Q19

IF Q14 NE 5, 6, 7, 9, 10, 11, 12, OR 13, SKIP TO INSTRUCTIONS BEFORE Q21.

IF Q14 = 5, 6, 7, 9, 10, 11, 12, OR 13, ASK Q19-Q20, INSERTING <Q14 MODE> NAME DEFINED BY Q14 MOST DAYS USED AS FOLLOWS:

- Q14_R5 + Q14_R6 = carpool
- Q14_R7 = vanpool
- Q14_R9 = bus
- Q14_R10 + Q14_R11 + Q14_R12 + Q14_R13 = train

Q19 How do you get from home to where you meet your <Q14 MODE: carpool, vanpool, bus, train>?

- 1 Picked up at (or leave from) home by carpool/vanpool or driver (**SKIP TO INSTRUCTIONS BEFORE Q21**)
- 2 Drive alone to driver's home or drive alone to passenger's home
- 3 Drive to a central location, like a park & ride or station
- 4 Another carpool/vanpool, including dropped off by household member
- 5 Bicycle
- 6 Motorcycle
- 7 Walk
- 8 I am the driver of carpool/vanpool
- 9 Bus/transit
- 19 Other (SPECIFY) _____

Q20 How many miles is it one way from your home to where you meet your < Q14 MODE: carpool, vanpool, bus, train >?

_____ miles (**ALLOW DECIMALS**)

MODE DURING GRH (Past Registrants)**INSTRUCTIONS BEFORE Q21**

IF GRHTYPE = 2 (PAST_REG) AND Q2 = 2 OR 9, ASK Q21-23, INSERT "registered"

IF GRHTYPE = 2 (PAST_REG) AND Q3 = 1, ASK Q21-Q23, INSERT "eligible"

IF GRHTYPE = 1 (CURR_REG), SKIP TO Q27

IF GRHTYPE = 3 (ONE_TIME), SKIP TO Q24

Q21 Next, think back to the time that you were <registered, eligible> for the GRH program. During that time, how many days, Monday – Friday, were you assigned to work in a typical week?

- 1 1 day per week
- 2 2 days per week
- 3 3 days per week
- 4 4 days per week
- 5 5 days per week

Q23 And while you were <registered, eligible> for GRH, how did you get to work? Enter the number of days, Monday through Friday, that you typically used each of the listed types of transportation. If you used more than one type on a single day (e.g., walked to the bus stop, then rode the bus), count only the type you used for the **longest distance part** of your trip.

Indicate also how many weekdays you did NOT travel to your usual work location and the reasons (e.g., regular day off, telecommute, compressed work schedule day off) for not traveling to work.

CHECK SUM OF DAYS. IF TOTAL NOT EQUAL TO 5, SHOW MESSAGE: "Please report for all days Monday – Friday, including days you did not work."

IF Q14 = 1 AND RESPONDENT DOES NOT REPORT "CWS day off" (RESPONSE 1), SHOW MESSAGE: "You said you typically work a compressed work schedule now. Please indicate the number of compressed schedule days you had during the time you were registered for the GRH program." ACCEPT "0" AS THE RESPONSE.

IF Q14 = 2 AND RESPONDENT DOES NOT REPORT "Telecommute/telework" (RESPONSE 2), SHOW MESSAGE: "You said you typically telecommute now. Please indicate the number of days you telecommuted during the time you were registered for the GRH program?" ACCEPT "0" AS RESPONSE.

Type of Transportation – While <i>Registered or Eligible</i> for GRH	Number of Days Used (0 to 5)
Days you traveled to your usual work location	
3 Drive alone in a car, truck, van, or SUV	
4 Motorcycle	
5 Carpool, including carpool w/family member, dropped off (ride or drive with others in a car, truck, van, or SUV)	
6 Casual carpool (slugging)	
7 Vanpool	
8-N/A, Not used	
9 Bus (public or private bus, shuttle, or buspool)	
10 Metrorail	
11 MARC (MD Commuter Rail)	
12 VRE	
13 AMTRAK / other train	
14 Bicycle (entire trip from home to work)	
15 Walk (entire trip from home to work)	
16 Taxi	
Days you did not travel to your usual work location	
1 Compressed work schedule day off	
2 Telecommute/telework all day	
17 Regular day off	
21 Other (describe) _____	
Total Days	Sum of 1-21

DEFINE DALTDAYS (Days using alt modes during GRH – past registrants only)

DALTDAYS = TOTAL Q23 DAYS USING MODES 5, 6, 7, 9, 10, 11, 12, 13, 14, 15

DEFINE DMCA (During Most Common Alternate)

Set DMCA using Q23 alt mode used most days (responses 5, 6, 7, 9, 10, 11, 12, 13, 14, 15)

IF DALTDAYS = 0, SET DMCA = 99 (no MCA)

IF DALTDAYS > 0, SET DMCA AS FOLLOWS:

IF GREATEST NUMBER OF Q23, R5-15 =

Q23_05, SET DMCA = 05 (Carpool)

Q23_06, SET DMCA = 06 (Casual Carpool / Slug)

Q23_07, SET DMCA = 07 (Vanpool)

Q23_09, SET DMCA = 09 (Bus)

Q23_10, SET DMCA = 10 (Metrorail)

Q23_11, SET DMCA = 11 (MARC)

Q23_12, SET DMCA = 12 (VRE)

Q23_13, SET DMCA = 13 (AMTRAK / Other)

Q23_14 SET DMCA = 14 (Bicycle)

Q23_15 SET DMCA = 15 (Walk)

IF TIE FOR MOST DAYS USED, SELECT DCMA IN THIS ORDER: VANPOOL, CARPOOL, BUS, VRE, MARC, METRORAIL, AMTRAK, CASUAL CARPOOL, BIKE, WALK.

IF GRHTYPE = 2 (PAST_REG) AND Q3 = 1, CONTINUE WITH Q24

OTHERWISE SKIP TO Q27

MODE BEFORE HEARD ABOUT GRH (OTE only)***(One-Time Exceptions mode before GRH)***

Q24 Think back to the time before you heard about the GRH program. At that time, how many days Monday – Friday were you assigned to work in a typical week?

- 0 did not work any days Monday-Friday then, did not work in Washington area then
- 1 1 day per week
- 2 2 days per week
- 3 3 days per week
- 4 4 days per week
- 5 5 days per week

IF Q24 = 0, AUTOCODE Q26, RESPONSE 20 (did not work then) = 5, THEN SKIP TO DEFINE BHALTDAYS

Q26 And before you heard about GRH, how did you get to work? Enter the number of days, Monday through Friday, that you typically used each of the listed types of transportation. If you used more than one type on a single day (e.g., walked to the bus stop, then rode the bus), count only the type you used for the **longest distance part** of your trip.

Indicate also how many weekdays you did NOT travel to your usual work location and the reasons (e.g., regular day off, telecommute, compressed work schedule day off) for not traveling to work.

CHECK SUM OF DAYS. IF TOTAL NOT EQUAL TO 5, SHOW MESSAGE: "Please report for all days Monday – Friday, including days you did not work."

IF Q14 = 1 AND RESPONDENT DOES NOT REPORT "CWS day off" (RESPONSE 1), SHOW MESSAGE: "You said you typically work a compressed work schedule now. Please indicate the number of compressed schedule

days you had before you heard about the GRH program.” **ACCEPT “0” AS VALID RESPONSE**

IF Q14 = 2 AND RESPONDENT DOES NOT REPORT "Telecommute/telework" (RESPONSE 2), SHOW MESSAGE: “You said you typically telecommute now. Please indicate the number of days you telecommuted before you heard about the GRH program?” **ACCEPT “0” AS VALID RESPONSE.**

Type of Transportation – Before Hearing About GRH	Number of Days Used (0 to 5)
Days you traveled to your usual work location	
3 Drive alone in a car, truck, van, or SUV	
4 Motorcycle	
5 Carpool, including carpool w/family member, dropped off (ride or drive with others in a car, truck, van, or SUV)	
6 Casual carpool (slugging)	
7 Vanpool	
8 N/A, Not used	
9 Bus (public or private bus, shuttle, or buspool)	
10 Metrorail	
11 MARC (MD Commuter Rail)	
12 VRE	
13 AMTRAK / other train	
14 Bicycle (entire trip from home to work)	
15 Walk (entire trip from home to work)	
16 Taxi	

Days you did not travel to your usual work location	
1 Compressed work schedule day off	
2 Telecommute/telework all day	
17 Regular day off	
21 Other (describe) _____	
20 Did not work Monday-Friday then, did not work in Washington area then	
Total Days	Sum of 1-21

DEFINE BHALTDAYS (Days using alt modes before heard about GRH - OTE)

BHALTDAYS = TOTAL Q26 DAYS USING MODES 5, 6, 7, 9, 10, 11, 12, 13, 14, 15

DEFINE BHMCA (Most Common Alternative before respondent heard about GRH - OTE)

Set BHMCA using Q26 alt mode used most days (responses 5, 6, 7, 9, 10, 11, 12, 13, 14, 15)

IF BHALTDAYS = 0, SET BHMCA = 99 (no MCA)

IF BHALTDAYS > 0, SET BHMCA AS FOLLOWS:

IF GREATEST NUMBER OF Q26, R5-15 =

Q26_05, SET BHMCA = 05 (Carpool)

Q26_06, SET BHMCA = 06 (Casual Carpool / Slug)

Q26_07, SET BHMCA = 07 (Vanpool)

Q26_09, SET BHMCA = 09 (Bus)

Q26_10, SET BHMCA = 10 (Metrorail)

Q26_11, SET BHMCA = 11 (MARC)

Q26_12, SET BHMCA = 12 (VRE)

Q26_13, SET BHMCA = 13 (AMTRAK / Other)

Q26_14 SET BHMCA = 14 (Bicycle)

Q26_15 SET BHMCA = 15 (Walk)

IF TIE FOR MOST DAYS USED, SELECT BHCMA IN THIS ORDER: VANPOOL, CARPOOL, BUS, VRE, MARC, METRORAIL, AMTRAK, CASUAL CARPOOL, BIKE, WALK.

NOW SKIP TO Q29a (DEFINE GRH CHANGE)

MODE BEFORE REGISTERED FOR GRH (Current Registrants, Past Registrants)***(Current Registrants and Past Registrants mode before GRH)***

Q27 Now, please think back to the time before you registered for the GRH program. At that time, how many days, Monday - Friday were you assigned to work in a typical week?

- 0 0, did not work any days Monday – Friday then, did not work in Washington area then
- 1 1 day per week
- 2 2 days per week
- 3 3 days per week
- 4 4 days per week
- 5 5 days per week

IF Q27 = 0, AUTOCODE Q29, RESPONSE 20 (not working M-F) = 5, THEN SKIP TO BRALTDAYS

Q29 And before you registered for GRH, how did you get to work? Enter the number of days, Monday through Friday, that you typically used each of the listed types of transportation. If you used more than one type on a single day (e.g., walked to the bus stop, then rode the bus), count only the type you used for the **longest distance part** of your trip.

Indicate also how many weekdays you did NOT travel to your usual work location and the reasons (e.g., regular day off, telecommute, compressed work schedule day off) for not traveling to work.

CHECK SUM OF DAYS. IF TOTAL NOT EQUAL TO 5, SHOW MESSAGE: "Please report for all days Monday – Friday, including days you did not work."

IF Q14 = 1 AND RESPONDENT DOES NOT REPORT "CWS day off" (RESPONSE 1), SHOW MESSAGE: "You said you typically work a compressed work schedule now. Please indicate the number of compressed schedule days you had before you registered for the GRH program?" **ACCEPT "0" AS VALID RESPONSE.**

IF Q14 = 2 AND RESPONDENT DOES NOT REPPORT "Telecommute/telework, SHOW MESSAGE: "You said you typically telecommute now. Please indicate the number of days you telecommuted before you registered for the GRH program?" **ACCEPT "0" AS VALID RESPONSE**

Type of Transportation – Before Registering for GRH	Number of Days Used (0 to 5)
Days you traveled to your usual work location	
3 Drive alone in a car, truck, van, or SUV	
4 Motorcycle	
5 Carpool, including carpool w/family member, dropped off (ride or drive with others in a car, truck, van, or SUV)	
6 Casual carpool (slugging)	
7 Vanpool	
8 N/A, Do not use	
9 Bus (public or private bus, shuttle, or buspool)	
10 Metrorail	
11 MARC (MD Commuter Rail)	
12 VRE	
13 AMTRAK / other train	
14 Bicycle (entire trip from home to work)	
15 Walk (entire trip from home to work)	
16 Taxi	
Days you did not travel to your usual work location	
1 Compressed work schedule day off	
2 Telecommute/telework all day	
17 Regular day off	
18 /21 Other (describe) _____	
20 Did not work Monday-Friday then, did not work in Washington area then	
Total Days	Sum of 1-21

DEFINE BRALTDAYS (Days using alt modes before registered for GRH (Current, Past)

BRALTDAYS = TOTAL Q29 DAYS USING MODES 5, 6, 7, 9, 10, 11, 12, 13, 14, 15

DEFINE BRMCA (Most Common Alt Mode before registering for GRH (Current, Past)

Set BRMCA using Q29 alt mode used most days (responses 5, 6, 7, 9, 10, 11, 12, 13, 14, 15)

IF BRALTDAYS = 0, SET BRMCA = 99 (no MCA)

IF BRALTDAYS > 0, SET BRMCA AS FOLLOWS:

IF GREATEST NUMBER OF Q29, R5-15 =

Q29_05, SET BRMCA = 05 (Carpool)

Q29_06, SET BRMCA = 06 (Casual Carpool / Slug)

Q29_07, SET BRMCA = 07 (Vanpool)

Q29_09, SET BRMCA = 09 (Bus)

Q29_10, SET BRMCA = 10 (Metrorail)

Q29_11, SET BRMCA = 11 (MARC)

Q29_12, SET BRMCA = 12 (VRE)

Q29_13, SET BRMCA = 13 (AMTRAK / Other)

Q29_14 SET BRMCA = 14 (Bicycle)

Q29_15 SET BRMCA = 15 (Walk)

IF TIE FOR MOST DAYS USED, SELECT BRMCA IN THIS ORDER: VANPOOL, CARPOOL, BUS, VRE, MARC, METRORAIL, AMTRAK, CASUAL CARPOOL, BIKE, WALK.

Q29a – DEFINE GRH CHANGE – AUTOCODE ONLY – DO NOT ASK

COMPARE MODE WHILE IN GRH TO MODE BEFORE GRH TO DETERMINE CHANGE

IF GRHTYPE = 1 (CURR_REG) AND IF CALTDAYS > 0 AND BRALTDAYS = 0, SET Q29a = 1

IF GRHTYPE = 2 (PAST_REG) AND IF DALTDAYS > 0 AND BRALTDAYS = 0, SET Q29a = 1

IF GRHTYPE = 3 (ONE_TIME) AND IF CALTDAYS > 0 AND BHALTDAYS = 0, SET Q29a = 1

IF GRHTYPE = 2 (PAST_REG) AND IF DALTDAYS > 0 AND BHALTDAYS = 0, SET Q29a = 1

IF GRHTYPE = 1 (CURR_REG) and IF CALTDAYS > 0 AND BRALTDAYS > 0 AND CALTDAYS > BRALTDAYS, SET Q29a = 2

IF GRHTYPE = 2 (PAST_REG) and IF DALTDAYS > 0 AND BRALTDAYS > 0 AND DALTDAYS > BRALTDAYS, SET Q29a = 2

IF GRHTYPE = 3 (ONE_TIME) and IF CALTDAYS > 0 AND BHALTDAYS > 0 AND CALTDAYS > BHALTDAYS, SET Q29a = 2

IF GRHTYPE = 2 (PAST_REG) and IF DALTDAYS > 0 AND BHALTDAYS > 0 AND DALTDAYS > BHALTDAYS, SET Q29a = 2

IF GRHTYPE = 1 (CURR_REG) AND CALTDAYS > 0 AND BRALTDAYS > 0 AND CALTDAYS <= BRALTDAYS, SET Q29a = 3

IF GRHTYPE = 2 (PAST_REG) and DALTDAYS > 0 AND BRALTDAYS > 0 AND DALTDAYS <= BRALTDAYS, SET Q29a = 3

IF GRHTYPE = 3 (ONE_TIME) and CALTDAYS > 0 AND BHALTDAYS > 0 AND CALTDAYS <= BHALTDAYS, SET Q29a = 3

IF GRHTYPE = 2 (PAST_REG) and IF DALTDAYS > 0 AND BHALTDAYS > 0 AND DALTDAYS <= BHALTDAYS, SET Q29a = 3

IF GRHTYPE = 1 (CURR_REG) AND CALTDAYS = 0, SET Q29a = 4

IF GRHTYPE = 2 (PAST_REG) and DALTDAYS = 0, SET Q29a = 4

IF GRHTYPE = 3 (ONE_TIME) and CALTDAYS = 0, SET Q29a = 4

IF GRHTYPE = 1 (CURR_REG) AND Q29, RESPONSE 20 > 0, SET Q29a = 9

IF GRHTYPE = 2 (PAST_REG) AND Q29, RESPONSE 20 > 0, SET Q29a = 9

IF GRHTYPE = 3 (ONE_TIME) AND Q26, RESPONSE 20 > 0, SET Q29a = 9

- 1 Started alt mode
- 2 Increased alt mode
- 3 Continued alt mode
- 4 No alt mode while in GRH
- 9 Unknown – no previous mode reported

IF Q29a = 1, CONTINUE TO INSTRUCTIONS BEFORE Q30

IF Q29a = 2, SKIP TO INSTRUCTIONS BEFORE Q35

IF Q29a = 3, SKIP TO INSTRUCTIONS BEFORE 40

IF Q29a = 4 OR 9, SKIP TO Q44a

GRH INFLUENCE IN STARTING, CONTINUING, OR INCREASING USE OF ALTERNATIVE MODES**Two questions asked of respondents who use / used alt modes while in GRH**

- Ask about the importance of GRH in their decision to start, increase, or continue alt mode use
- Ask about the likelihood of starting, increasing, or continuing alt mode use if GRH wasn't available

Note slight wording differences by registration status (Current, Past, OTE)Started alt mode – previously drove alone all the time (Q30 – Q34)

- **Current registrants** who previously DA all the time – Q30 and Q33, THEN SKIP TO Q44a (Other services used)
- **Past registrants** who previous DA all the time – Q31 and Q34, THEN SKIP TO Q44a (Other services used)
- **OTE** who previous DA all the time – Q32 and Q33, THEN SKIP TO Q44a (Other services used)

Increased alt mode (Q35 – Q39)

- **Current registrants** who increased alt mode – Q35 and Q38, THEN SKIP TO Q44a (Other services used)
- **Past registrants** who increased alt mode – Q36 and Q39, THEN SKIP TO Q44a (Other services used)
- **OTE** who increased alt mode – Q37 and Q38, THEN SKIP TO Q44a (Other services used)

Continued alt mode (Q40 – Q44)

- **Current registrants** who continued alt mode – Q40 and Q43, THEN SKIP TO Q44a (Other services used)
- **Past registrants** who continued alt mode – Q41 and Q43, THEN SKIP TO Q44a (Other services used)
- **OTE** who continued alt mode – Q42 and Q44, THEN SKIP TO Q44a (Other services used)

INSTRUCTIONS BEFORE Q30**Skip instruction for previous Drive Alone by registration status****FOR Q30 – Q34, INSERT MODE NAME USING CMCA, DMCA****IF GRHTYPE = 1 (CURR_REG), USE CMCA****IF GRHTYPE = 2 (PAST_REG), USE DMCA****IF GRHTYPE = 3 (ONE_TIME), USE CMCA****IF CMCA, DMCA = 5 OR 6, INSERT carpooling****IF CMCA, DMCA = 7, INSERT vanpooling****IF CMCA, DMCA = 9, 10, 11, 12, OR 13, INSERT using transit****IF CMCA, DMCA = 14, INSERT biking****IF CMCA, DMCA = 15, INSERT walking****Current Registrants****IF GRHTYPE = 1 (CURR_REG) AND IF CALTDAYS > 0 AND BRALTDAYS = 0, ASK Q30, THEN SKIP TO Q33.****Past Registrants****IF GRHTYPE = 2 (PAST_REG) AND IF DALTDAYS > 0 AND BRALTDAYS = 0, ASK Q31, THEN SKIP TO Q34.****One-time Exception users****IF GRHTYPE = 3 (ONE_TIME) AND IF CALTDAYS > 0 AND BHALTDAYS = 0, ASK Q32, THEN ASK Q33 .****IF GRHTYPE = 2 (PAST_REG) AND IF DALTDAYS > 0 AND BHALTDAYS = 0, ASK Q32, THEN ASK Q33.****IF Q29a = 4 OR 9, SKIP TO Q44a****ALL OTHERS, SKIP TO INSTRUCTIONS BEFORE Q35**

SHIFT FROM DRIVING ALONE – GRH IMPORTANCE (Current, Past, OTE)***(Current Registrants who always drove alone to work before registering)***

Q30 You said that you regularly drove alone before you registered for GRH. How important was the availability of GRH to your decision to start <CMCA - carpooling, vanpooling, using transit, biking, or walking (FROM Q14)>?

- 1 very important
- 2 somewhat important
- 3 not at all important
- 9 Don't know

NOW SKIP TO Q33

(Past Registrants who always drove alone to work before registering)

Q31 You said that you regularly drove alone before you registered for GRH. How important was the availability of GRH to your decision to start <DMCA - carpooling, vanpooling, using transit, biking, or walking (FROM Q23)>?

- 1 very important
- 2 somewhat important
- 3 not at all important
- 9 Don't know

SKIP TO Q34

(One-Time Exceptions who always drove alone to work before learning about GRH)

Q32 You said that you regularly drove alone before you heard about GRH. How important was the availability of GRH to your decision to start <CMCA - carpooling, vanpooling, using transit, biking, or walking (FROM Q14)>?

- 1 very important
- 2 somewhat important
- 3 not at all important
- 9 Don't know

CONTINUE WITH Q33

SHIFT FROM DRIVING ALONE – LIKELY TO SHIFT WITHOUT GRH (Current, Past, OTE)***(Current Registrants or One-Time exceptions who always drove alone to work before registering)***

Q33 If GRH had not been available, how likely would you have been to start <CMCA - carpooling, vanpooling, using transit, biking, or walking (FROM Q14)>?

- 1 very likely
- 2 somewhat likely
- 3 not at all likely
- 9 Don't know

SKIP TO Q44a

(Past Registrants who always drove alone to work before registering)

Q34 If GRH had not been available, how likely would you have been to start <DMCA - carpooling, vanpooling, using transit, biking, or walking (FROM Q23)>?

- 1 very likely
- 2 somewhat likely
- 3 not at all likely
- 9 Don't know

SKIP TO Q44a

INSTRUCTIONS BEFORE Q35

Skip instruction for increased use of alt modes by registration status

Current Registrants

IF GRHTYPE = 1 (CURR_REG) and IF CALTDAYS > 0 AND CALTDAYS > BRALTDAYS, ASK Q35, THEN SKIP TO Q38

Past Registrants

IF GRHTYPE = 2 (PAST_REG) and IF DALTDAYS > 0 AND DALTDAYS > BRALTDAYS, ASK Q36, THEN SKIP TO Q39

One-time Exceptions

IF GRHTYPE = 3 (ONE_TIME) and IF CALTDAYS > 0 AND CALTDAYS > BHALTDAYS, ASK Q37, THEN SKIP TO Q38

IF GRHTYPE = 2 (PAST_REG) and IF DALTDAYS > 0 AND DALTDAYS > BHALTDAYS, ASK Q37, THEN SKIP TO Q38

ALL OTHERS SKIP TO INSTRUCTIONS BEFORE Q40

INCREASED ALT MODE USE SINCE GRH – GRH IMPORTANCE (Current, Past, OTE)***(Current Registrants who increased use of alternative modes after registering)***

Q35 You said that since you registered for GRH, you've increased the number of days per week that you use types of transportation OTHER than driving alone for your trip to work. How important was GRH to your decision to make this change?

- 1 very important
- 2 somewhat important
- 3 not at all important
- 9 Don't know

SKIP TO Q38

(Past Registrants who increased use of alternative modes after registering)

Q36 You said that while you were registered for GRH, you increased the number of days per week that you used types of transportation OTHER than driving alone for your trip to work. How important was GRH to your decision to make this change?

- 1 very important
- 2 somewhat important
- 3 not at all important
- 9 Don't know

SKIP TO Q39

(One-Time Exceptions who increased use of alternative modes after registering)

Q37 You said that since you heard about GRH, you've increased the number of days per week that you use types of transportation OTHER than driving alone for your trip to work. How important was GRH to your decision to make this change?

- 1 very important
- 2 somewhat important
- 3 not at all important
- 9 Don't know

CONTINUE WITH Q38

INCREASED ALT MODE USE SINCE GRH – LIKELY TO MAKE CHANGE WITHOUT GRH (Current, Past, OTE)***(Current Registrants, or One-time Exceptions)***

Q38 If GRH had not been available, how likely would you have been to make this change?

- 1 very likely
- 2 somewhat likely
- 3 not at all likely
- 9 Don't know

SKIP TO Q44a

(Past Registrants)

Q39 If GRH had not been available, how likely would you have been to make this change?

- 1 very likely
- 2 somewhat likely
- 3 not at all likely
- 9 Don't know

SKIP TO Q44a

INSTRUCTIONS BEFORE Q40

Skips for Respondents who used alt modes before GRH but did not increase the number of days using alt modes, by registration status

FOR Q40 – Q42, INSERT MODE NAME USING BHMCA, BRMCA

IF GRHTYPE = 1 (CURR_REG), USE BRMCA

IF GRHTYPE = 2 (PAST_REG), USE BRMCA

IF GRHTYPE = 3 (ONE_TIME), USE BHMCA

IF BHMCA, BRMCA = 5 OR 6, INSERT carpooling

IF BHMCA, BRMCA = 7, INSERT vanpooling

IF BHMCA, BRMCA = 9, 10, 11, 12, OR 13, INSERT using transit

IF BHMCA, BRMCA = 14, INSERT biking

IF BHMCA, BRMCA = 15, INSERT walking

Current Registrants

IF GRHTYPE = 1 (CURR_REG) AND CALTDAYS > 0 AND BRALTDAYS > 0 AND CALTDAYS <= BRALTDAYS, ASK Q40, THEN SKIP TO Q43.

Past Registrants

IF GRHTYPE = 2 (PAST_REG) and DALTDAYS > 0 AND BRALTDAYS > 0 AND DALTDAYS <= BRALTDAYS, ASK Q41,
IF GRHTYPE = 2 (PAST_REG) AND Q29a = 3 (CONTINUED MODE), ASK Q41
THEN SKIP TO Q43.

One-Time exceptions

IF GRHTYPE = 3 (ONE_TIME) and CALTDAYS > 0 AND BHALTDAYS > 0 AND CALTDAYS <= BHALTDAYS, ASK Q42, THEN SKIP TO Q44.

IF GRHTYPE = 2 (PAST_REG) and DALTDAYS > 0 AND BHALTDAYS > 0 AND DALTDAYS <= BHALTDAYS, ASK Q42, THEN SKIP TO Q44.

ALL OTHERS, SKIP TO Q44a

CONTINUED ALT MODE USE SINCE GRH (NO CHANGE) – GRH IMPORTANCE (Current, Past, OTE)***(Current Registrants who were ridesharing/using transit at least some days before registering)***

Q40 You said that you were <BRMCA - carpooling, vanpooling, using transit, biking, or walking (FROM Q29)> before you registered for GRH. How important was the availability of GRH to your decision to continue using a type of transportation other than driving alone?

- 1 very important
- 2 somewhat important
- 3 not at all important
- 9 Don't know

SKIP TO Q43

(Past Registrants who were ridesharing/using transit at least some days before registering)

Q41 You said that you were <BRMCA - carpooling, vanpooling, using transit, biking, or walking (FROM Q29)> before you registered for GRH. How important was the availability of GRH to your decision to continue using a type of transportation other than driving alone?

- 1 very important
- 2 somewhat important
- 3 not at all important
- 9 Don't know

SKIP TO Q43

(One-Time Exceptions who were ridesharing/using transit at least some days before hearing about GRH)

Q42 You said that you were <BHMCA - carpooling, vanpooling, using transit, biking, or walking (FROM Q26)> before you heard about GRH. How important was the availability of GRH to your decision to continue using a type of transportation other than driving alone?

- 1 very important
- 2 somewhat important
- 3 not at all important
- 9 Don't know

SKIP TO Q44

CONTINUED ALT MODE SINCE GRH (NO CHANGE) – LIKELY TO CONTINUE WITHOUT GRH (Current, Past, OTE)***(Current Registrants or Past Registrants)***

Q43 If GRH had not been available, how likely would you have been to continue using this type of transportation?

- 1 very likely
- 2 somewhat likely
- 3 not at all likely
- 9 Don't know

SKIP TO Q44a

(One-Time Exceptions)

Q44 If GRH had not been available, how likely would you have been to continue using this type of transportation?

- 1 very likely
- 2 somewhat likely
- 3 not at all likely
- 9 Don't know

OTHER SERVICES RECEIVED THAT COULD HAVE INFLUENCED DECISIONS (Current, Past, OTE)

ASK ALL RESPONDENTS Q44a

Q44a Do you recall receiving or accessing any of the following commute information or assistance services from Commuter Connections, in addition to GRH?

ROTATE RESPONSES 1-10, SHOW "90-no services" AT THE END OF THE LIST. ACCEPT MULTIPLES FOR 1-10, DO NOT ALLOW MULTIPLES WITH 90

- 1 Names of people you could contact to form a carpool or vanpool (matchlist)
- 2 Map showing home and work locations of people you could contact to form a carpool or vanpool
- 3 Other carpool / vanpool information
- 4 HOV lane, Express lane information
- 5 'Pool Rewards carpool financial incentive
- 6 Transit schedule / route / fare information
- 7 Park & Ride lot information
- 8 Telework information, telework center information
- 9 Bicycling information, online bicycle route planning
- 10 Special events information (e.g., Bike to Work Day, Car Free Day)
- 90 Did not receive or access any of these services **(PROGRAMMER: GREY OUT THIS BOX IF ANY OTHER RESPONSE IS CHECKED)**

IF Q29a = 4 OR 9, SKIP TO Q49

IF Q44a = ONLY 90 OR IS LEFT ENTIRELY BLANK OR IF Q44a NE ANY OF 1-10, SKIP TO INSTRUCTIONS BEFORE Q45

IF Q44a = ANY OF 1-10, CONTINUE

IF GRHTYPE = 1 OR 3 (CURR_REG OR ONE_TIME) AND CALTDAYS = 0, SKIP TO INSTRUCTIONS BEFORE Q45

IF GRHTYPE = 2 (PAST_REG) AND DALTDAYS = 0, SKIP TO INSTRUCTIONS BEFORE Q45

IF GRHTYPE = 1 OR 3 (CURR_REG OR ONE_TIME) AND Q29a = 1, 2, OR 3, ASK Q44b

IF GRHTYPE = 2 (PAST_REG) AND Q29a = 1, 2, OR 3, SKIP TO Q44c

FOR Q44b – Q44c, INSERT MODE NAME USING CMCA, DMCA

IF GRHTYPE = 1 (Current Registrant), USE CMCA

IF GRHTYPE = 2 (Past Registrant), USE DMCA

IF GRHTYPE = 3 (OTE), USE CMCA

IF CMCA, DMCA = 5 OR 6, INSERT carpool

IF CMCA, DMCA = 7, INSERT vanpool

IF CMCA, DMCA = 9, 10, 11, 12, OR 13, INSERT use transit

IF CMCA, DMCA = 14, INSERT bike

IF CMCA, DMCA = 15, INSERT walk

Q44b Was any of the information or assistance that you received from Commuter Connections more important than GRH to your decision to <CMCA - carpool, vanpool, use transit, bike, or walk (FROM Q14)>?

SHOW RESPONSES 1-10 ONLY IF THEY WERE CHECKED IN Q44a, ALSO SHOW RESPONSE 98

- 1 Names of people you could contact to form a carpool or vanpool (matchlist)
- 2 Map showing home and work locations of people you could contact to form a carpool or vanpool
- 3 Other carpool / vanpool information
- 4 HOV lane, Express lane information
- 5 'Pool Rewards carpool financial incentive
- 6 Transit schedule / route / fare information
- 7 Park & Ride lot information
- 8 Telework information, telework center information
- 9 Bicycling information, online bicycle route planning
- 10 Special events information (e.g., Bike to Work Day, Car Free Day)
- 98 No, services were not important
- 99 *Left blank*

SKIP TO INSTRUCTIONS BEFORE Q45

Q44c Was any of the information or assistance that you received from Commuter Connections more important than GRH to your decision to <DMCA - carpool, vanpool, use transit, bike, or walk (FROM Q23)>?

SHOW RESPONSES 1-10 ONLY IF THEY WERE CHECKED IN Q44a, ALSO SHOW RESPONSE 98

- 1 Names of people you could contact to form a carpool or vanpool (matchlist)
- 2 Map showing home and work locations of people you could contact to form a carpool or vanpool
- 3 Other carpool / vanpool information
- 4 HOV lane, Express lane information
- 5 Pool Rewards carpool financial incentive
- 6 Transit schedule/ route / fare information
- 7 Park & Ride lot information
- 8 Telework information, telework center information
- 9 Bicycling information, online bicycle route planning
- 10 Special events information (e.g., Bike to Work Day, Car Free Day)
- 98 No, services were not important
- 99 *Left blank*

INSTRUCTIONS BEFORE Q45

IF GRHTYPE = 1 OR 3 (CURR_REG OR ONE_TIME) AND CALTDAYS > 0, ASK Q45

IF GRHTYPE = 2 (PAST_REG) AND DALTDAYS > 0, ASK Q46

OTHERWISE, SKIP TO Q49

FOR Q45 – Q46, INSERT MODE NAME USING CMCA, DMCA

IF GRHTYPE = 1 (Current Registrant), USE CMCA

IF GRHTYPE = 2 (Past Registrant), USE DMCA

IF GRHTYPE = 3 (OTE), USE CMCA

IF CMCA, DMCA = 5 OR 6, INSERT carpool

IF CMCA, DMCA = 7, INSERT vanpool

IF CMCA, DMCA = 9, 10, 11, 12, OR 13, INSERT use transit

IF CMCA, DMCA = 14, INSERT bike

IF CMCA, DMCA = 15, INSERT walk

(Current Registrants or One-Time Exceptions)

Q45 Did you receive any other commute assistance or benefits, from any source, that influenced your decision to <CMCA - carpool, vanpool, use transit, bike, or walk (FROM Q14)>?

- 1 yes (SKIP TO Q46a)
- 2 no (SKIP TO Q47a)
- 9 Don't know (SKIP TO Q47a)

(Past Registrants)

Q46 Did you receive any other commute assistance or benefits, from any source, that influenced your decision to <DMCA - carpool, vanpool, use transit, bike, or walk (FROM Q23)>?

- 1 yes (CONTINUE WITH Q46a)
- 2 no (SKIP TO Q47a)
- 9 Don't know (SKIP TO Q47a)

Q46a What was that assistance or benefit?

OPEN ENDED _____

Q47a Were any other factors or circumstances important to your decision?

- 1 Yes (CONTINUE WITH Q48)
- 2 No (SKIP TO Q49)
- 3 Don't know (SKIP TO Q49)

Q48 What other factors or circumstances were important to your decision?

OPEN ENDED _____

REFERRAL SOURCES FOR GRH, GRH ADVERTISING RECALL

Q49 How did you hear about the GRH Program?

OPEN ENDED _____

Q50 Have you heard, seen, or read any advertising about GRH?

- 1 yes
- 2 no **(SKIP TO Q54)**
- 9 Don't know **(SKIP TO Q54)**

Q52 Had you registered for GRH before you saw or heard this advertising?

- 1 Yes **(SKIP TO Q54)**
- 2 no
- 9 Don't know

Q53 Did the advertising encourage you to seek information about GRH or to register for GRH?

- 1 yes
- 2 no
- 9 Don't know

USE OF GRH

IF Q3 = 1, AUTOCODE Q54 = 1, THEN SKIP TO Q55

Q54 Have you taken a GRH trip since you registered for GRH?

- 1 yes
- 2 no **(SKIP TO Q59)**
- 3 Don't know **(SKIP TO Q59)**

Q55 **IF Q3 = 1, SHOW,** "You said you had taken a GRH trip. For what reason did you take the trip? If you have taken more than one trip, report about the most recent trip.

IF Q3 NE 1 (BLANK / SYSTEM MISSING), SHOW, "For what reason did you take the trip?" If you have taken more than one trip, report about the most recent trip.

(ACCEPT ONLY ONE RESPONSE)

- 1 Illness (self)
- 2 Illness of family member
- 3 Other personal emergency
- 4 Illness of child
- 5 Child care problem
- 6 Illness of carpool partner
- 7 Unscheduled overtime
- 8 Missed CP/VP
- 9 Other (SPECIFY) _____

Q56 Was the service satisfactory?

- 1 Yes **(SKIP TO Q58)**
- 2 No
- 9 Don't know **(SKIP TO Q58)**

Q57 Why was it not satisfactory? (Allow multiple responses)

- 1 Waited too long
- 2 Hard to get approval
- 3 Didn't like taxi/driver
- 4 Other (SPECIFY) _____

Q58 About how long did you wait for the taxi to arrive?

_____ minutes

Q59 In what ways could Commuter Connections improve the GRH program?

OPEN ENDED _____

Code responses in the following categories in survey post-processing (ALLOW UP TO THREE RESPONSES)

- 1 Quicker response for GRH ride requests
- 2 Don't require registration
- 3 Allow use of GRH if ridesharing/using transit less than twice per week
- 4 Allow more GRH trips in a year
- 5 Easier/faster approval process
- 6 Wider area for trips
- 88 No improvement needed
- 99 Other (SPECIFY)
- 98 DK

DEMOGRAPHICS

Now just a few last questions to help us group your answers with those of others.

Q60 Which of the following groups includes your age?

- 1 under 18
- 2 18 - 24
- 3 25 - 34
- 4 35 - 44
- 5 45 - 54
- 6 55 - 64
- 7 65 or older
- 9 Prefer not to answer

Q61 Do you consider yourself to be Latino, Hispanic, or Spanish?

- 1 Yes
- 2 No
- 9 Prefer not to answer

Q62 Which one of the following best describes your racial background. Is it . . . **(ALLOW ONLY ONE RESPONSE)**

- 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 Prefer not to answer

Q63 Finally, please indicate the category that best represents your household's total annual income.

- 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 - \$179,999
- 11 \$180,000 or more
- 19 Prefer not to answer

Q64 Are you female or male?

- 1 Female
- 2 Male
- 3 Prefer not to answer

Thank you for taking the time to fill out our survey. Your input is very important to us!

APPENDIX C

Respondent Alert Letters

Telephone Survey for Phone Only Participants – Alert Letter Sent by postal mail

Dear Sir/Madam:

Commuter Connections is conducting a brief survey of people who have used and/or registered with the Regional Guaranteed Ride Home (GRH) program. The Metropolitan Washington Council of Governments (COG) will be overseeing this survey on behalf of *Commuter Connections* and I'm writing to request your participation.

You will be contacted by telephone within the next few days by CIC Research, Inc., an independent research firm hired by COG. An interviewer will ask you questions for just a few minutes about your experience with the GRH program.

Your input is very important to us even if you are no longer registered in the program and/or have not used a GRH trip. If you have recently taken a GRH trip and completed a feedback survey about that trip, please note that this is a different survey.

The information you provide will be kept completely confidential, and will be used only to help improve the regional GRH program. Thank you in advance for your help. If you have any questions about this study, please contact me at (202) 962-3200.

Sincerely,

Nicholas W. Ramfos
Director, Commuter Connections

Internet Survey for Active Participants - Alert Letter - Sent by email

Dear Sir/Madam:

Commuter Connections is conducting a brief survey of people who have used and/or registered with the Regional Guaranteed Ride Home (GRH) program. The Metropolitan Washington Council of Governments (COG) will be overseeing this survey on behalf of *Commuter Connections* and I'm writing to request your participation.

Shown below is the internet link that will take you directly to the Commuter Connections web site where you will log into your account to take the survey. The survey will take just a few minutes to complete and will ask about your experience with the GRH program. You might also have seen a pop-up notice for this survey when you logged-in to your Commuter Connections account. If you already completed the survey from that notice, thank you for your participation.

<https://tdm.commuterconnections.org/mwcog/>

If you cannot log in to your account, please contact us at 800-745-RIDE, (Monday through Friday from 8:30 a.m. – 4:30 p.m.)

Your input is very important to us even if you are no longer registered in the program and/or have not used a GRH trip. If you have recently taken a GRH trip and completed a feedback survey about that trip, please note that this is a different survey.

The information you provide will be kept completely confidential, and will be used only to help improve the regional GRH program. Thank you in advance for your help. If you have any questions about this study, please contact me at (202) 962-3200.

Sincerely,

Nicholas W. Ramfos
Director, Commuter Connections

APPENDIX D

Results from 2013, 2010, 2007, 2004, and 2001 GRH Surveys

Comparison on Key Questions

Registration Information

- **Registration status as defined in the GRH database** – Percentage of all respondents

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
Current registrant	51%	40%	61%	59%	62%
Past registrant	49%	60%	39%	39%	32%
One-time exception	0%	0%	0%	2%	6%

- **Length of time in GRH** – Percentage of all registrants

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
Less than 1 year	15%	12%	2%	7%	7%
1 year	14%	21%	28%	29%	39%
2 years	13%	15%	34%	21%	23%
3 years	9%	9%	5%	17%	31%
More than 3 years	49%	43%	26%	26%	N/A

- **Reasons for not re-registering** – Past registrants only

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
<u>Program Related Reasons</u>					
Didn't know I had to re-register	23%	21%	11%	14%	21%
Didn't get around to it, forgot	22%	32%	24%	13%	7%
Had a problem with registering	7%	10%	---	---	---
Dissatisfied, bad experience	6%	6%	---	5%	---
Too much effort to use program	3%	0%	---	2%	14%
<u>Personal Circumstance Reasons</u>					
Changed job/work hours	18%	10%	25%	27%	25%
Never used program	9%	6%	17%	6%	---
Couldn't CP/VP/use transit 2+ dy/wk	8%	3%	6%	6%	4%
Needed car for work/other purpose	4%	5%	6%	10%	3%
Moved to different residence	4%	6%	6%	3%	7%
CP/VP/Transit didn't work out	---	3%	5%	10%	6%

GRH Information Sources

- **How heard about GRH – Percentage of all respondents**

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
Word of mouth – referral	31%	35%	34%	26%	----
Radio	12%	12%	16%	16%	----
Internet	9%	14%	11%	11%	----
Employer/employee survey	9%	8%	7%	10%	----
Bus/train sign	5%	4%	4%	7%	----
Brochure/promo materials	3%	4%	7%	6%	----
Direct mail/postcard from CC	2%	3%	6%	5%	----
Bus/train schedule	<1%	0%	4%	1%	----
TV	<1%	2%	3%	3%	----
Newspaper/Newsletter	<1%	3%	4%	3%	----
Other Rideshare/Transit Org	5%	2%	----	----	----
Other	5%	2%	7%	5%	----

- **Awareness/influence of GRH advertising – Percentage of all respondents**

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
Heard or saw GRH ad	57%	62%	57%	72%	---
Registered after hearing ads	39%	38%	36%	54%	---
Ad encouraged registration	33%	33%	34%	49%	---

Current Travel Information

- **Current mode split – Primary mode**

<u>Current Registration</u>	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
DA/Motorcycle	1%	2%	6%	5%	9%
CP/VP	30%	19%	36%	36%	36%
Bus	31%	27%	22%	19%	18%
Metrorail	11%	13%	17%	14%	36%
Commuter Rail	23%	22%	18%	24%	
Bike/walk	2%	1%	<1%	2%	<1%
Telework	2%	1%	<1%	<1%	<1%

<u>Past Registrants</u>	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
DA/Motorcycle	31%	29%	42%	41%	33%
CP/VP	18%	14%	17%	20%	20%
Bus	19%	19%	9%	13%	9%
Metrorail	12%	10%	22%	9%	35%
Commuter Rail	14%	12%	5%	12%	
Bike/walk	2%	2%	3%	2%	2%
Telework	4%	3%	3%	2%	1%

- Average length of commute**

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
Distance (miles)	35.4 mi	36.5 mi	34.5 mi	32.7 mi	31.7 mi
Time (minutes)	66 min	67 min	63 min	50 min	57 min

- “Pre-GRH” Modes vs “During-GRH” Modes (3+ days per week)** – Percentage of all registrants – modes used before registering/participating in GRH and the modes used while registered/participating in GRH

<u>Pre-GRH</u>	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
DA/Motorcycle	24%	23%	31%	26%	23%
CP/VP	23%	27%	26%	29%	30%
Bus	19%	17%	17%	16%	
Metrorail	14%	16%	19%	14%	45%
Commuter Rail	18%	15%	11%	13%	

<u>During-GRH</u>	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
DA/Motorcycle	3%	4%	14%	5%	9%
CP/VP	30%	33%	34%	35%	34%
Bus	30%	27%	24%	21%	
Metrorail	12%	14%	18%	15%	55%
Commuter Rail	22%	20%	16%	20%	

- Average Days Using Alternative Modes “Pre-GRH” and “During GRH”** – Percentage of all registrants – number of days using carpool, vanpool, transit, bike, or walk for commuting before registering/participating in GRH and the modes used while registered/participating in GRH

<u>Pre-GRH</u>	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
0 days/week	26%	23%	32%	26%	23%
1 day/week	1%	0%	0%	0%	0%
2 days/week	1%	1%	2%	1%	0%
3 days/week	5%	2%	1%	2%	1%
4 days/week	13%	11%	9%	11%	2%
5 days/week	54%	62%	56%	60%	74%
Average days/week	3.4	3.7	3.2	3.5	3.8

<u>During-GRH</u>	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
0 days/week	1%	2%	10%	4%	8%
1 day/week	1%	1%	1%	1%	0%
2 days/week	3%	2%	1%	1%	1%
3 days/week	11%	6%	3%	3%	4%
4 days/week	24%	22%	14%	16%	7%
5 days/week	60%	67%	71%	74%	80%
Average days/week	4.4	4.4	4.2	4.5	4.4

- **Length of time using alternative modes** – Respondents who currently use alternative modes

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
1 – 11 months	7%	19%	9%	13%	12%
12 – 23 months	16%	17%	9%	13%	14%
24 – 35 months	12%	14%	12%	15%	17%
36 – 59 months	19%	19%	20%	21%	} 57%
60 – 83 months			50%	11%	
60 – 119 months	28%	24%			
84 + months (7 or more years)				27%	
120 + months	18%	7%			
Average duration (months)	68 months	46 months	87 months	65 months	N/A

Influence of GRH on Commute Pattern Decisions

- **Alternative mode changes from “Pre-GRH” to “With-GRH”** – All respondents*

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
Started using alternative mode	22%	24%	22%	24%	18%
Increased alt mode use (frequency)	3%	4%	5%	4%	2%
Maintained use of alternative mode	74%	67%	64%	67%	72%
No alt mode “with-GRH”	1%	0%	9%	4%	8%

Note this table does not include respondents who said they did not commute in the Washington metropolitan area before they joined GRH.

- **Importance of GRH to Decision to Start Using Alternative Mode** – Respondents who started alt modes when they registered for GRH

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
n=	479	208	199	229	163
Very important	50%	50%	50%	46%	50%
Somewhat important	30%	30%	19%	26%	23%
Not at all important	20%	20%	31%	27%	27%

- **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

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
n=	70	28	32	44	15
Very important	37%	43%	28%	27%	47%
Somewhat important	38%	39%	38%	30%	20%
Not at all important	25%	18%	35%	43%	33%

- **Importance of GRH to Decision to Maintain Use of Alternative Mode** – Respondents who were using alt modes before they registered for GRH

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
n=	1,606	678	604	596	702
Very important	43%	46%	43%	40%	39%
Somewhat important	32%	33%	31%	32%	25%
Not at all important	25%	21%	26%	28%	35%

- **Likely to Start Using Alternative Mode if GRH not available** – Respondents who started alt modes when they registered for GRH

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
n=	464	204	201	225	163
Very likely	48%	51%	65%	50%	63%
Somewhat likely	34%	33%	24%	28%	26%
Not at all likely	18%	6%	11%	22%	11%

- **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

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
n=	66	42	33	42	14
Very likely	43%	48%	48%	48%	22%
Somewhat likely	41%	28%	21%	23%	36%
Not at all likely	16%	24%	32%	29%	43%

- **Likely to Maintain Use of Alternative Mode if GRH not available** – Respondents who were using alt modes before they registered for GRH

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
n=	1,572	653	603	573	702
Very likely	68%	65%	66%	71%	76%
Somewhat likely	25%	29%	25%	23%	15%
Not at all likely	7%	5%	9%	6%	9%

- **Other factors or circumstances that influenced decision to start, continue, or increase use of alternative mode** – All respondents

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
Save money	10%	13%	19%	12%	15%
Commute ease/flexibility/convenience	8%	9%	0%	0%	0%
Save time	5%	9%	16%	11%	14%
Stress / health / exercise	5%	0%	3%	2%	3%
Help environment / reduce traffic	5%	2%	0%	0%	0%
Parking issues	3%	2%	7%	3%	4%
Didn't want to drive	3%	9%	41%	16%	15%
Other options not reliable	3%	2%	0%	0%	0%
Save wear and tear on vehicle	3%	4%	3%	2%	1%
Moved to different residence	<1%	0%	2%	2%	2%
Changed job/work hours	<1%	2%	1%	4%	2%
Family obligations	<1%	2%	1%	2%	2%
None	65%	55%	31%	42%	43%

Use of and Satisfaction with GRH

- **Used GRH trip** – all respondents, by registration status and by mode used

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
All respondents	31%	33%	23%	25%	22%
<u>By Registration Status</u>					
- Current registrants	33%	35%	30%	25%	23%
- Past registrants	25%	27%	21%	21%	19%
<u>By Mode Used "During-GRH"</u>					
- CP/VP	—	41%	27%	35%	27%
- Carpool	34%				
- Vanpool	39%				
- Bus	31%	35%	28%	29%	27%
- Commuter rail	31%	29%	17%	20%	
- Metrorail	22%	19%	14%	21%	18%

- **Reasons for taking a GRH trip** – Respondents who took a trip

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
Illness (self)	33%	29%	25%	30%	29%
Illness of family member	21%	21%	15%	10%	11%
Illness of child	19%	20%	33%	28%	27%
Unscheduled overtime	15%	14%	14%	15%	11%
Other personal emergency	9%	11%	7%	10%	16%
Missed CP/VP	1%	2%	1%	3%	2%
Other	2%	3%	6%	4%	4%

- **Time waiting for taxi** – Respondents who took a trip using a taxi

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
5 minutes or less	23%	26%	22%	28%	41%
6 – 10 minutes	28%	27%	23%	28%	13%
11 – 20 minutes	33%	32%	36%	24%	22%
21 – 30 minutes	9%	7%	14%	13%	8%
31 – 45 minutes	2%	2%	3%	3%	5%
46 or more minutes	5%	7%	3%	4%	11%
Average (minutes)	16 min	17 min	16 min	16 min	19 min

- **Improvements desired to GRH Program ***

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
None needed	12%	22%	25%	28%	47%
More advertising	11%	7%	13%	8%	6%
Allow more trips per year	<1%	1%	4%	3%	----
Quicker response for ride requests	2%	3%	3%	3%	4%
Easier/faster approval	1%	3%	2%	3%	4%
Wider area for trips	<1%	1%	2%	2%	2%
Relax conditions / supervisor approval	7%		1%	3%	2%
Better directions/info on how to use	2%		1%	2%	2%
Better communication with drivers	1%	2%	1%	2%	----
Don't require registration	<1%	3%	1%	1%	2%
Extend the hours	2%	2%	0%	0%	0%
Notify when time to re-register	4%	1%	1%	----	
Other	5%	3%	10%	7%	11%
Don't know / no suggestions	58%	49%	47%	41%	25%

* Multiple responses permitted

Demographics

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

<u>Residence</u>	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
DC	2%	1%	1%	2%	3%
Maryland	36%	32%	34%	29%	35%
Virginia	60%	65%	64%	67%	61%
Other/Ref	2%	2%	1%	2%	2%

<u>Employment</u>	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
DC	61%	63%	60%	61%	---
Maryland	11%	11%	10%	9%	---
Virginia	28%	26%	30%	30%	---
Other/Ref	0%	0%	0%	0%	---

- **Income** – all respondents

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
Under \$40,000	1%	2%	2%	4%	10%
\$40,000 – \$59,999	5%	6%	9%	14%	19%
\$60,000 – \$79,999	10%	12%	17%	19%	20%
\$80,000 – \$99,999	13%	14%	19%	24%	22%
\$100,000 – \$119,999	18%	16%	20%	17%	30%
\$120,000 – \$139,999	16%	15%	10%	8%	
\$140,000 – \$159,999	12%	13%	8%	5%	
\$160,000 – \$179,999	8%	8%			
\$180,000 or more	17%	14%			

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

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
Hispanic/Latino	5%	5%	4%	4%	5%
White	73%	68%	65%	71%	73%
Black/African-American	16%	20%	21%	21%	17%
Asian	6%	7%	10%	4%	6%

- **Gender** – all respondents

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
Female	48%	47%	57%	57%	59%
Male	52%	53%	43%	43%	41%

- **Age** – all respondents

	<u>2013</u>	<u>2010</u>	<u>2007</u>	<u>2004</u>	<u>2001</u>
18 – 24	<1%	<1%	1%	<1%	2%
25 – 34	9%	9%	17%	17%	17%
35 – 44	20%	23%	32%	35%	37%
45 – 54	39%	41%	31%	33%	32%
55 – 64	27%	25%	18%	14%	10%
65 or older	5%	3%	1%	1%	1%