COMMUTER CONNECTIONS

WASHINGTON DC METROPOLITAN REGION GUARANTEED RIDE HOME (GRH) PROGRAM

2016 GRH APPLICANT SURVEY REPORT

Prepared for:

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

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EXECUTIVE SUMMARY

Introduction

This report presents the results of a Guaranteed Ride Home (GRH) survey of 2,171 commuters who currently participate or who have participated in the Commuter Connections Washington 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.

Commuter Connections' 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.

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.

Following is a summary of results on 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 continued to attract participants but also retained many participants. One-quarter of curent registrants had been registered for one year or less, but nearly seven in ten (68%) had been participating for more than three years.

- About half (52%) of all respondents were no longer registered for the GRH program (past registrants). However, 56% 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 20% of past registrants. These also were common reasons noted in 2013 and 2010, indicting it is still important to remind registrants that re-registration is required.

- Six percent said they "had problems/difficulties re-registering." This could be related to the use of the online system, which requires respondents to recall a password to make changes to their accounts. Nine 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 and did it encourage commuters who use alternative modes to use these modes more days per week?

- *Types of Commute Shifts Made by Participants* – The survey calculated three types of commute shifts that respondents might make: start using an alternative mode (driving alone pre-GRH), increase frequency of alternative mode use (alternative modes pre-GRH, increased frequency during GRH), and maintain alternative mode use (alternative mode pre-GRH and same number of alternative mode days during GRH).

  About two in ten (23%) respondents started using alternative modes at the time they joined GRH. A small number of respondents (3%) increased the number of days they used alternative modes. The largest share of respondents (73%) said they maintained but did not increase use of alternative modes they were using before GRH. These percentages were similar to the 2010 and 2013 GRH survey results.

- *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 58 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 2.9 days to 4.5 days, or about 1.6 days per week increase per respondent.

- *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 was 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 10% 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 23% 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 three in ten respondents who started an alternative mode and about the same share 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, 24% cited a service that was more important than GRH.

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 three in ten survey respondents said they had not registered before hearing or seeing the ads and that the ads had encouraged them to register.

  Respondents were more likely to have seen or heard GRH advertising if they registered before 2011, compared to a more recent registration; 66% who registered before 2011 said they had heard or seen advertising, compared to about half of respondents who registered more recently. 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.

- 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 4% of respondents as their first information source about GRH.

- Radio might be particularly important marketing tools to reach drive alone commuters. Thirteen 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 also were more likely to note "word of mouth" as their source; 40% gave this as their source, compared with about three in ten other respondents.

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SECTION 1 INTRODUCTION

This report presents the results of a Guaranteed Ride Home (GRH) survey of 2,171 commuters who currently participate or who have participated in the Commuter Connections Washington 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 2017. That evaluation will assess impacts of GRH and other Transportation Emission Control Measures (TERMs).

This report is divided into two sections following this introduction:

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

Following these 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 2016, 2013, 2010, 2007, and 2004 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 2016 GRH survey is the sixth such survey; previous GRH surveys were conducted in 2001, 2004, 2007, 2010, and 2013.

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, 2013 and March 15, 2016. 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 2016, the consultants received the GRH database from Commuter Connections 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 program database contained 24,727 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, 2013, and 2016, 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
   4) Past-Internet

Table 1 shows a summary of the populations for the four sample groups.

Table 1
Sample Frame by Contact Method and GRH Program Status

Sample Group	Population	Percentage
Telephone Administration		
Current Participants	614	2.5%
Past Participants	1,617	6.5%
Internet Administration		
Current Participants	11,245	45.5%
Past Participants	11,251	45.5%
TOTAL – All Groups	**24,727**	

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. A copy of the final Internet questionnaire is presented in Appendix B.

Survey Administration

Survey Pretest

Both Internet and telephone survey instruments were tested internally prior to administration. Because the questionnaire had no significant changes and computer programming was the same as the 2013 survey instrument, a pretest of respondents was not conducted for the study.

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 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 April 12 and April 22, 2016. Interviewers made weekday calls from 12:15 p.m. to 8:45 p.m. EDT. Calls were first directed to the respondent's work number. If contact was unsuccessful, the respondent was called at home. Interviews were conducted while respondents were at work or at home, depending on their wishes. If the call was answered by an answering machine, at least three more attempts were made to contact the respondent. A minimum of four 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 ensure data quality, the survey supervisors conducted periodic random monitoring. Other quality assurance checks were done once the data was collected.

The telephone effort resulted in 177 completed interviews. This group had a refusal rate of 2.2 percent.[1] An average of 24.5 call attempts was made for each completed interview. A disposition of telephone dialing results can be found in Appendix A.

Internet Interviews

Upon finalizing the Internet questionnaire and survey sample for the project, CIC sent two lists and two letters of introduction to COG for distribution. One list contained the names and contact information for 11,245 current (active) GRH participants. COG staff merged the survey sample with the alert letter for these potential participants, and then distributed the letters electronically, accompanied by a link to COG's server. The other list contained the names and contact information for the 11,251 past (Inactive) GRH participants. These also were prepared and distributed electronically to potential participants together with a link to CIC's server. Copies of the emails can be found in Appendix C.

For the Internet survey directed to COG's server, two reminder letters were sent to current participants who had not yet responded to the survey. For the original 11,245 current participant list, 10,282 emails were sent for the first reminder and 9,857 were sent for the second reminder. A total of 1,128 current participants were interviewed via the Internet site located on COG server. Past participants also received an initial invitation and two reminders. For the original 11,251 past participant list, 10,373 emails were sent for the first reminder and 9,659 were sent for the second reminder. A total of 866 Internet interviews were completed and submitted to the CIC server.

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.

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[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.

Type of GRH Participant	Sample Group	Total Population
Current participant/registrant (Includes one-time exceptions)	56%	48%
Past participant/registrant	44%	52%

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	75	3.5%	2.5%
Internet participants	1,128	52.0%	45.5%
Total Current Participants:	**1,203**	**55.5%**	**48.0%**
Past Participants			
Past telephone participants	102	4.7%	6.5%
Past Internet participants	866	39.8%	45.5%
Total Past Participants:	**968**	**44.5%**	**52.0%**
Total – All Participants	**2,171**	**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 2,171 interviews from a population of 23,481 (24,727 less 1,246 undeliverable emails/postal mails) resulted in a level of confidence of 95% $\pm$ 2.0% for the 2016 Washington GRH Applicant survey, essentially the same as the 95% $\pm$ 1.9% for the 2013 survey.

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 past Washington Regional GRH surveys, when these data were 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

In the 2016 survey, more than half (55%) of respondents lived in Virginia (Table 3). Four in ten (40%) lived in Maryland. Two percent of respondents lived in the District of Columbia and 3% lived in another state. The distribution by work state was considerably different. More than six in ten respondents (64%) worked in the District of Columbia. Two in ten (21%) respondents worked in Virginia and 15% worked in Maryland. Comparison of 2016 results with those from the 2013 and 2010 surveys shows that the share of Maryland respondents had increased and the share of Virginia respondents declined.

Table 3
Home and Work States

State	GRH 2016 (n = 2,171)		GRH 2013 (n = 2,374)		GRH 2010 (n = 1,032)	
	Home State	Work State	Home State	Work State	Home State	Work State
District of Columbia	2%	64%	2%	61%	1%	63%
Maryland	40%	15%	36%	11%	32%	11%
Virginia	55%	21%	60%	28%	65%	26%
Other	3%	0%	2%	0%	2%	0%

Top home Maryland and Virginia locations for 2016 GRH registrants, each with at least 4% of total respondents, included:

Virginia Counties	Percentage	Maryland Counties	Percentage
Prince William County	16%	Montgomery County	7%
Fairfax County	12%	Anne Arundel County	5%
Stafford County	7%	Frederick County (MD)	5%
Loudoun County	6%	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 (53%) and female (47%) respondents. Details of other characteristics are presented below.

Income – Figure 1 presents the distribution of respondents' annual household income. GRH participants had quite high annual household incomes. Three-quarters (75%) of respondents had household incomes of $100,000 or more and 16% had incomes of $200,000 or more.

Figure 1
Annual Household Income

(n = 1,569)
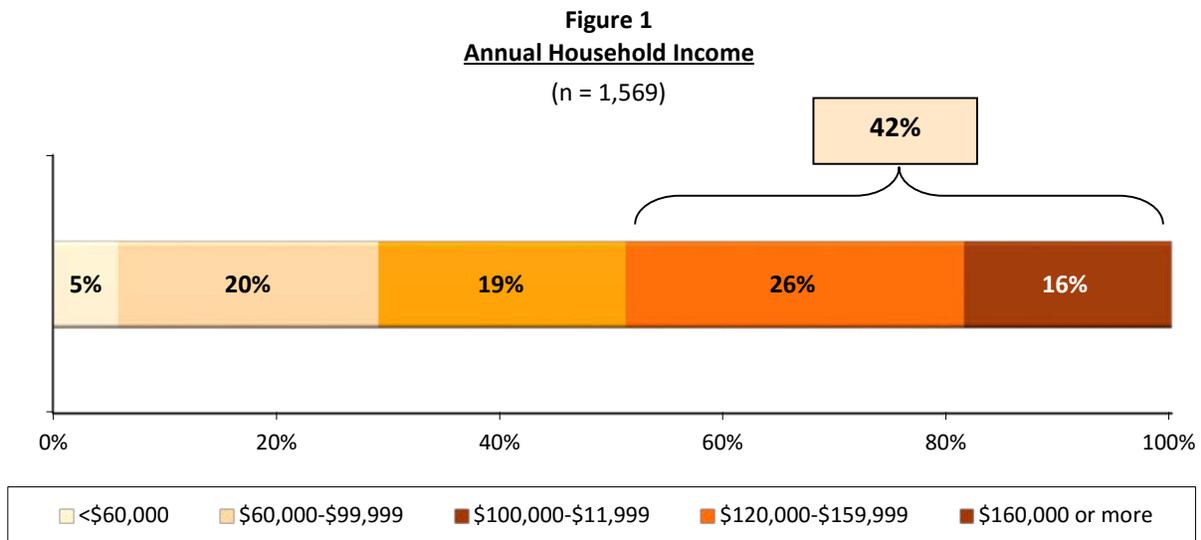
Age –GRH participants were clustered in the middle and older age brackets (Figure 2). About half (53%) were between the ages of 35 and 54 years old, four in ten (39%) were 55 years or older, and 8% were under 35 years.

Figure 2
Respondent Age Distribution

(n = 2,082)
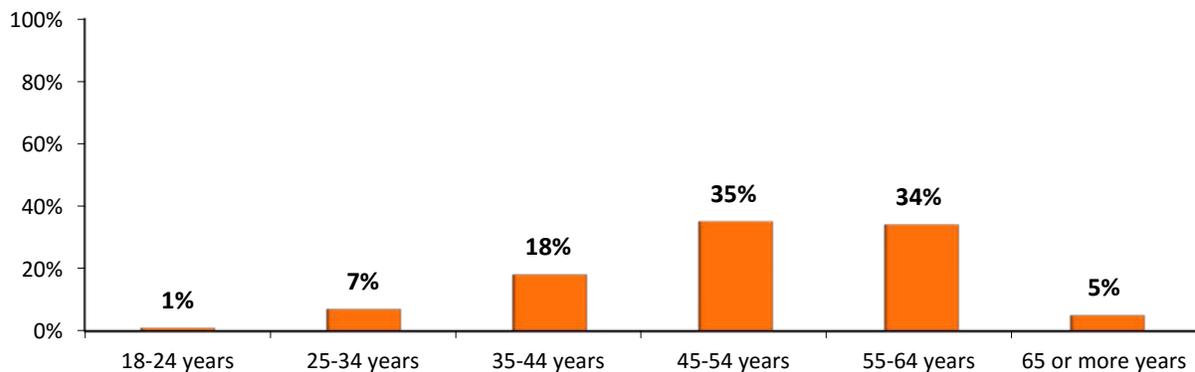
Ethnic Background – Lastly, as shown in Table 4, Caucasians/Whites and African-Americans represented the two largest ethnic group categories of GRH survey respondents, 70% and 17% respectively. Asians accounted for about 6% and Hispanics represented 5% of respondents.

Table 4
Ethnic Background

(n = 1,802)

Ethnic Group	Percentage
Causasian / White	70%
African-American / Black	17%
Asian	6%
Hispanic	5%
Other	2%

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.

Nearly three-quarter (74%) of respondents said they were currently registered for GRH. The remaining one-quarter (26%) said they had been registered in the past, but were not participating at the time of the survey. No respondents self-identified as a one-time exception user.

Table 5
Registration Status as Defined by Respondent (during survey interview)

(n = 2,171)

Registration Status	Percentage
Current registrants	74%
Past registrants	26%
One-time exceptions	0%

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 Compared with Status Defined in Database

Registration Status Defined in GRH Database	Registration Status Perceived by Respondent	
	Current	**Past**
Current registrants (n = 1,098)	96%	**4%**
Past registrants (n = 1,063)	**56%**	44%

As shown, 96% of respondents whose database status was current correctly identified their status as current. The remaining 4% said they were no longer registered for the program, although their registration was 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 more significant issue was the 56% of respondents whose registrants had expired, but who thought they were still registered. It is possible these respondents did not realize they needed to re-register each year, so assumed they were 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 2013 and March 2016. As shown in Figure 3, about seven in ten (69%) surveyed respondents said they first registered before 2013. The remaining respondents were about equally distributed among three more recent years: 9% registered in 2013, 11% in 2014, and 10% in 2015. One percent said they registered in 2016, but because the GRH survey interviews were conducted in April and May 2016,

registration figures for 2016 included only registrants who joined GRH between January 1 through March 15. Note that 18% of the total respondents 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 = 1,797, Excludes respondents who count not recall year)
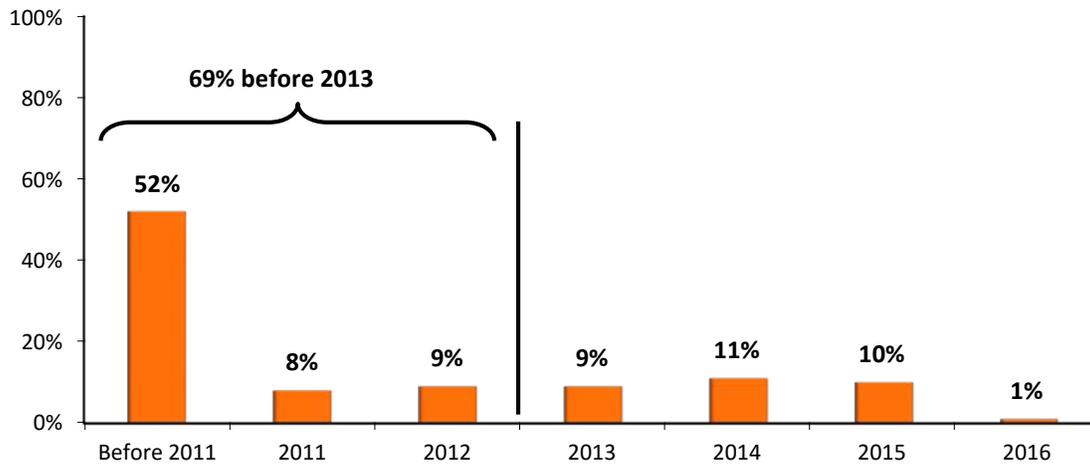
Participation in Other GRH Programs

When asked if they had participated in another GRH program prior to joining Commuter Connections' program, 21 respondents, about 1% of total respondents, said they had participated previously in another program. Eight of these respondents indicated they had participated in a "local government program", six participate in a GRH program sponsored by their employer, and seven participated in an "other" program.

Time Participating in GRH

Figure 4 shows how long respondents had been registered for the GRH Program. Nearly eight in ten (78%) of all respondents participated (or had been participating) for two or more years and 58% had been participating for more than three years. The comparison of GRH duration for respondents who self-identified as current versus past registrants shows that a larger percentage of current registrants were new to the program – 24% had been registered for one year or less, compared with 17% of past registrants.

Figure 4
Length of Time Registered in GRH Program By Survey Registration Status

(All registrants n = 1,778; Current registrants n = 1,394; Past Registrants n = 384)

Legend: < 1 year | 1 year | 2 years | 3 years | More than 3 years
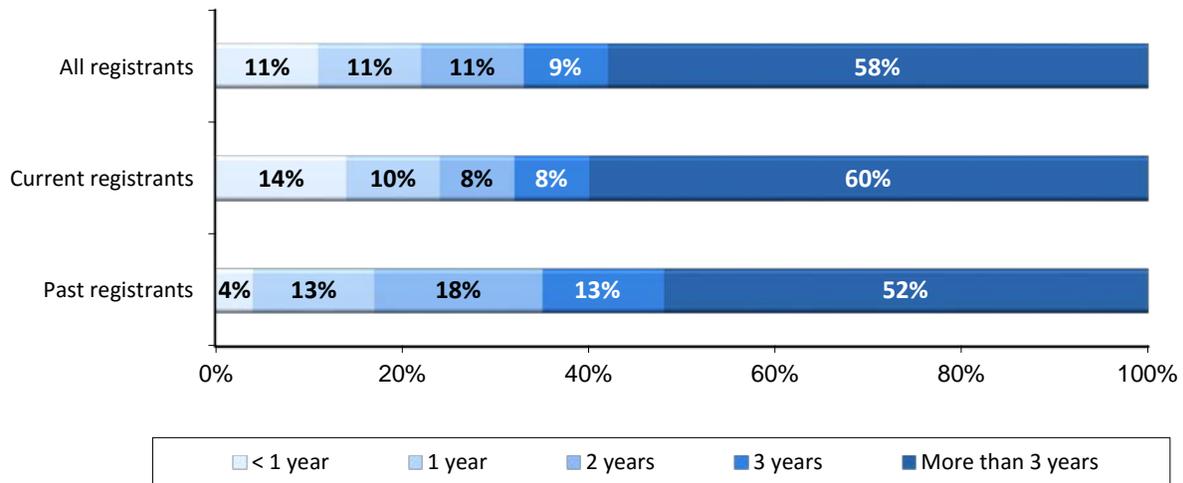
Reasons for Not Re-registering

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 = 451)
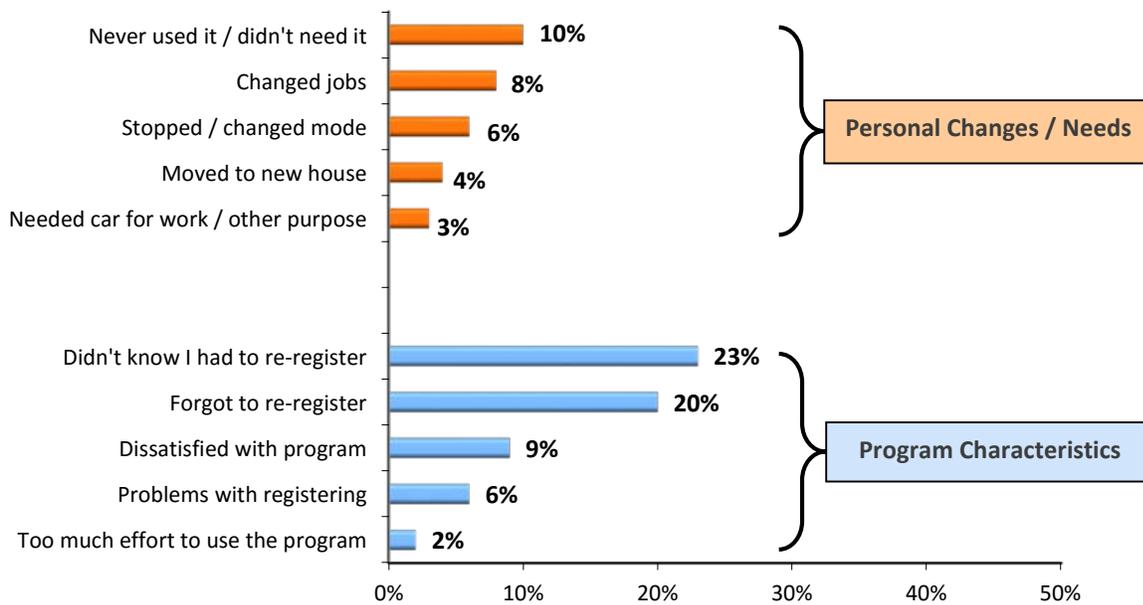
A frequently-mentioned program reason for not re-registering was that respondents did not know they had to re-register or didn't know their registrations had expired, cited by 23% of respondents. The percentage of respondents citing this reason was about the same as for 2013 and 2010, suggesting that registrants need to be reminded that re-registration is required. Another common program reasons for not re-registering was that respondents hadn't gotten around to it/forgot, mentioned by 20% past registrants. This also was a primary reason noted in 2013 and 2010. Nine percent were dissatisfied with the program, 6% had a problem or difficulty re-registering, and 2% thought it was too much effort to use the program.

Other respondents mentioned personal reasons that were unrelated to the program. Ten percent said they didn't re-register because they had never used the program and presumably felt it was not necessary. Eight percent changed jobs and 4% moved to a different residence. Six percent were 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.

GRH Information Sources

How Heard About GRH

Commuters heard about the GRH Program from various sources (Table 7). Three in ten (30%) mentioned word of mouth/referrals as their source of information, and one in ten mentioned the Internet (11%), radio (10%), and employer or employer survey (9%). Fewer than one in twenty mentioned each other response. GRH information sources in 2016 were generally similar to sources from previous years.

Table 7
How Respondents Learned About GRH

Information Source	2016 GRH (n=2,171)	2013 GRH (n=2,374)	2010 GRH (n=1,032)	2007 GRH (n=1,001)	2004 GRH (n=1,030)
Word of mouth – referral	30%	31%	35%	34%	26%
Internet	11%	9%	14%	11%	11%
Radio	10%	12%	12%	16%	16%
Employer/employee survey	9%	9%	8%	7%	10%
Bus/train sign	4%	5%	4%	3%	7%
Other rideshare/transit organization	4%	5%	2%	N/A	N/A
Commuter Connections	4%	3%	2%	N/A	N/A
Advertisement	4%	2%	3%	N/A	N/A
Brochure/promo materials	3%	3%	4%	7%	6%
Direct mail/postcard from CC	<1%	2%	3%	6%	5%
Don't know	20%	20%	13%	13%	11%
Other *	3%	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 commute mode they used before joining GRH (pre-GRH mode) (Figure 6). Four in ten (40%) 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 (27%), rode a bus (31%) or commuter rail (29%), and only 20% 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 (13%), compared with less than one in ten transit riders. Conversely, transit riders mentioned seeing a sign on a bus or train or at a train station or learning about Commuter Connections on the Internet more than did commuters who drove alone or rode in a carpool/vanpool.

Figure 6
How Respondents Learned About GRH by Primary Mode Pre-GRH
(Drive alone n = 517; Carpool/vanpool n = 397; Bus n = 422, Metrorail n = 305, Commuter rail n = 396)
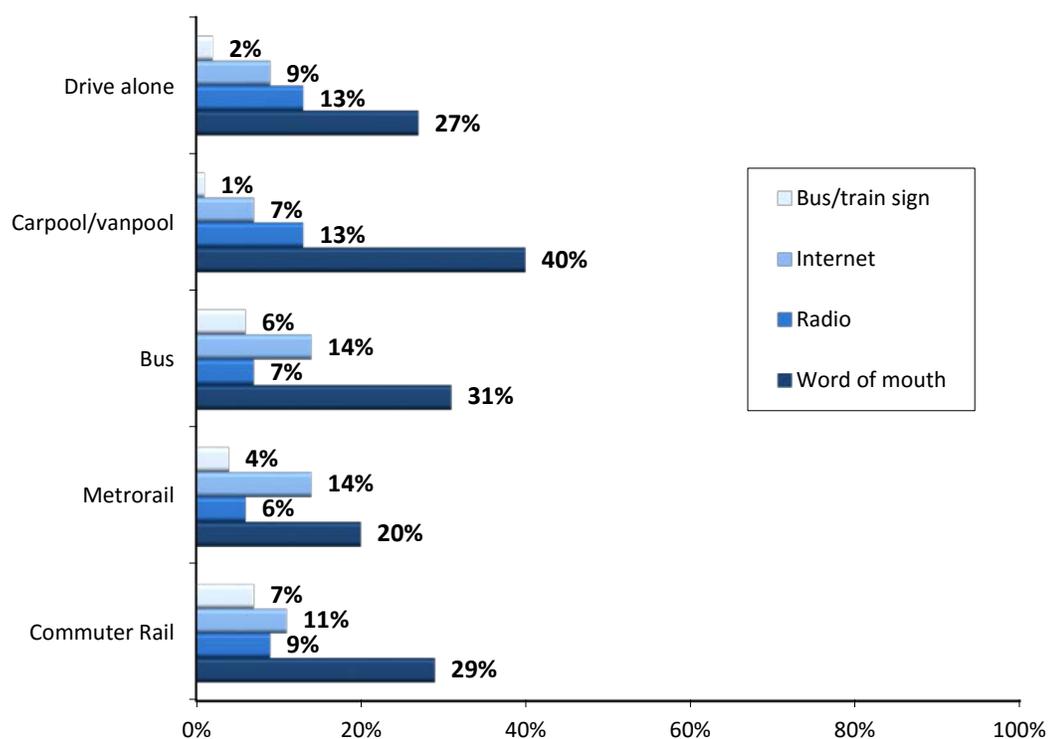
GRH Advertising

Heard or Saw GRH Advertising – When respondents were asked if they had heard, seen, or read any advertising about GRH, 58% of respondents said they recalled GRH advertising. This was about the same percentage as recalled advertising in the 2013 survey (57%).

Respondents were more likely to have seen or heard GRH advertising if they registered before 2011, compared to a more recent registration (Figure 7). Sixty-six percent who registered before 2011 said they had heard or seen advertising, compared to about half of respondents who registered more recently. 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.

Figure 7
Heard or Saw GRH Advertising by Year Registered for GRH
(All n = 2,171, Before 2011 n = 923; 2011-2012 n = 305; 2013-2014 n = 346; 2015-2016 n = 223)
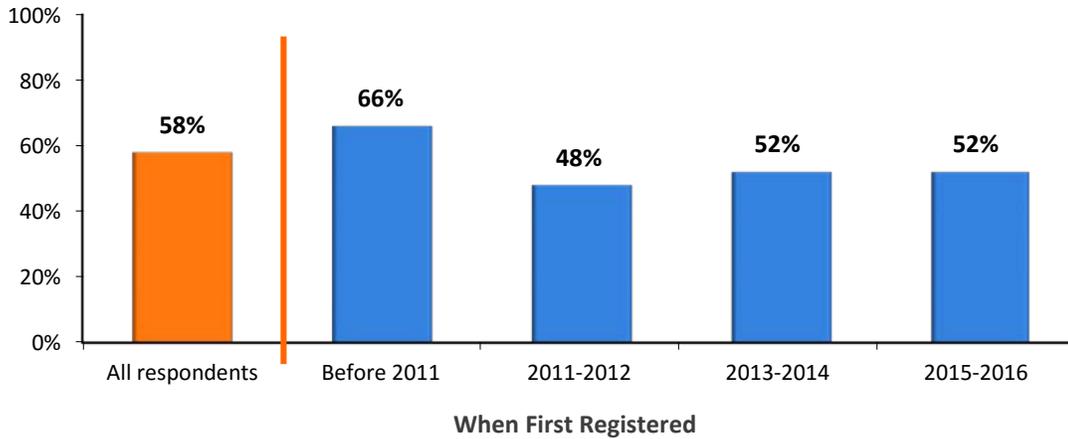
Influence of Ads on GRH Registration – The 58% of respondents who said they had seen or heard GRH advertising were asked if they had registered for GRH before they encountered the ads and if the ads had influenced them to register for GRH. Figure 8 shows these results, combined with the results for those who had not seen the ads. This chart thus summarizes ad exposure and ad influence.

Figure 8
Influence of GRH Advertising
(n = 2,171)
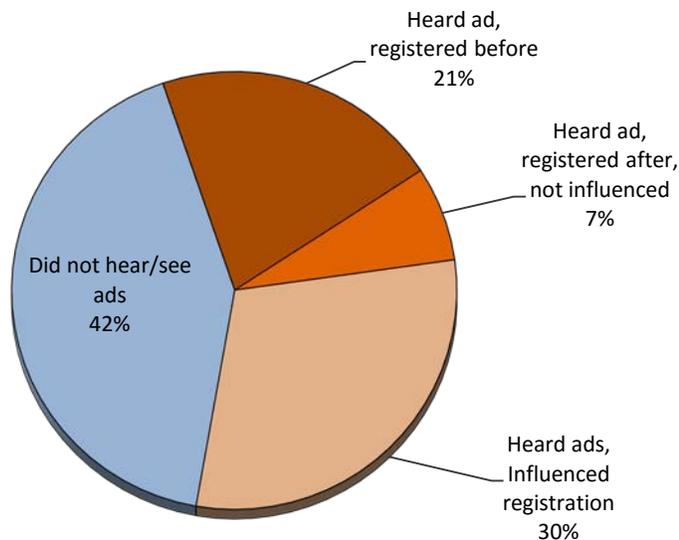
Four in ten (42%) respondents did not see or hear the ads at all. About two in ten (21%) saw or heard ads but had already registered for GRH. And 7% said they saw or heard the ads before they registered, but said the ads had not influenced them. These groups, in total, represented registrants who were not influenced by the advertising (70%).

The remaining 30% 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 (99%) of respondents worked full-time. But 23% worked a compressed schedule in which they worked a full-time schedule in fewer than five days; 19% worked a 9/80 compressed schedule, with one weekday off in alternate weeks and 4% worked 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 weekdays off each week.

Current Commute Mode

Respondents were asked about use of various commute modes for a typical work 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 each mode as their primary mode (mode used most days of the week). Because it was expected that past respondents would have different modes from current respondents, these two groups are shown separately.

Current Registrants – Bus was the most common primary mode for current registrants. It was used by three in ten (30%) current registrants. Commuter rail was the second most common primary mode, used by 24% of current registrants. Vanpool and carpool were used by 15% and 13% of current registrants and 11% primarily used Metrorail. Only 1% of current registrants said they primarily drove 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. Four percent said they primarily teleworked and 1% bicycled/walked to work.

Figure 9
Current Primary Modes by Survey Registration Status
(Current Registrants n = 1,670; Past Registrants n = 501)
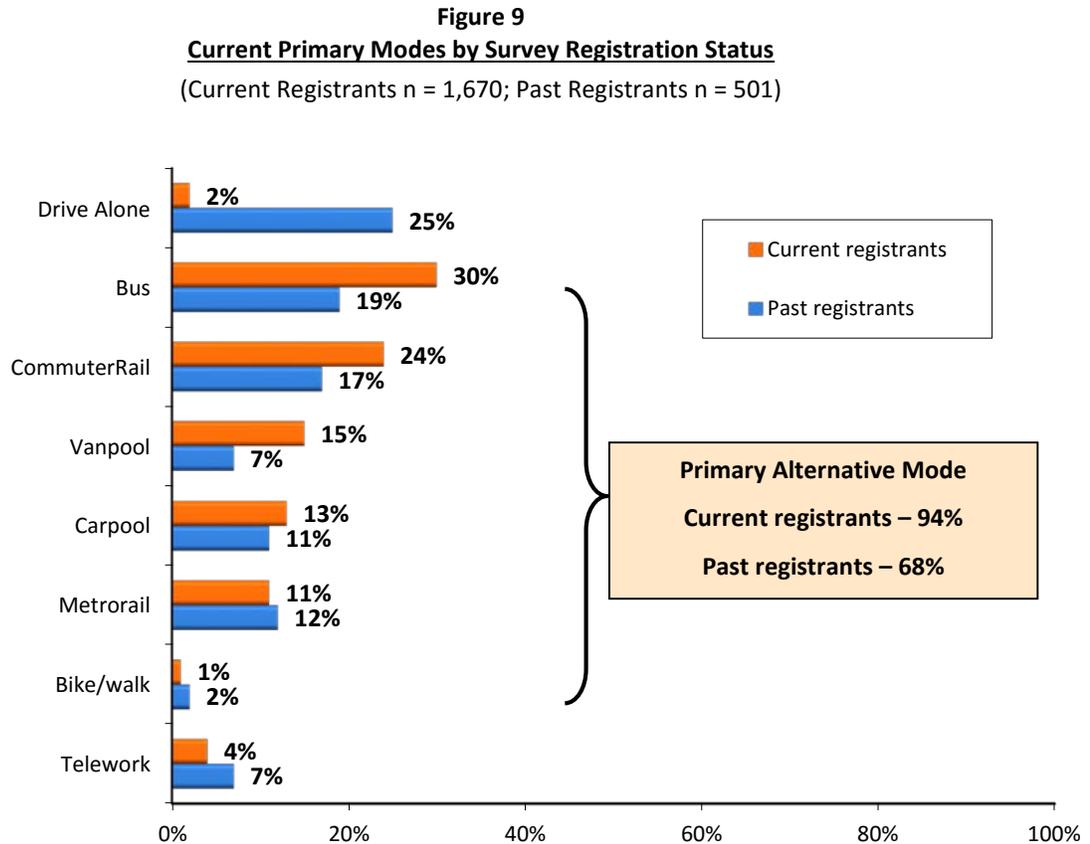
Past Registrants – Not surprisingly, past registrants were more likely than current registrants to drive alone; 25% of past registrants said this was their primary mode. But nearly seven in ten (68%) past registrants said they still used an alternative mode most of the time. Thus they were still eligible for GRH, even though they no longer participated. Almost two in ten (19%) rode a bus, 17% rode commuter rail, and 12% rode Metrorail. About two in ten carpooled or vanpooled and 2% bicycled or walked as their primary mode. Seven percent of respondents primarily teleworked. The 2016 share of past registrants who were using an alternative mode was essentially the same as the 69% observed in the 2013 GRH survey and 68% estimated in the 2010 survey.

Current Mode, 2007, 2010, 2013, 2016 – While the overall share of alternative mode use has been consistent, the distribution of commute modes used by current GRH registrants has changed over the past nine years (Figure 10). The share of current registrants who used carpool/vanpool as their primary mode has declined from 36% of all registrants in 2007 to 28% in 2016. Use of Metrorail also has fallen, from 17% to 11%. Conversely, use of bus and commuter rail has increased. In 2007, only 22% of GRH registrants primarily rode a bus to work; in 2016, 30% of registrants primarily rode the bus. And the commuter rail has increased from 18% to 24%.

Figure 10
Primary Commute Modes Used by GRH Registrants in 2007, 2010 2013, and 2016
Current GRH Registrants
(2007 n = 935; 2010 n = 787; 2013 n = 1,773, 2016 n = 1,670)
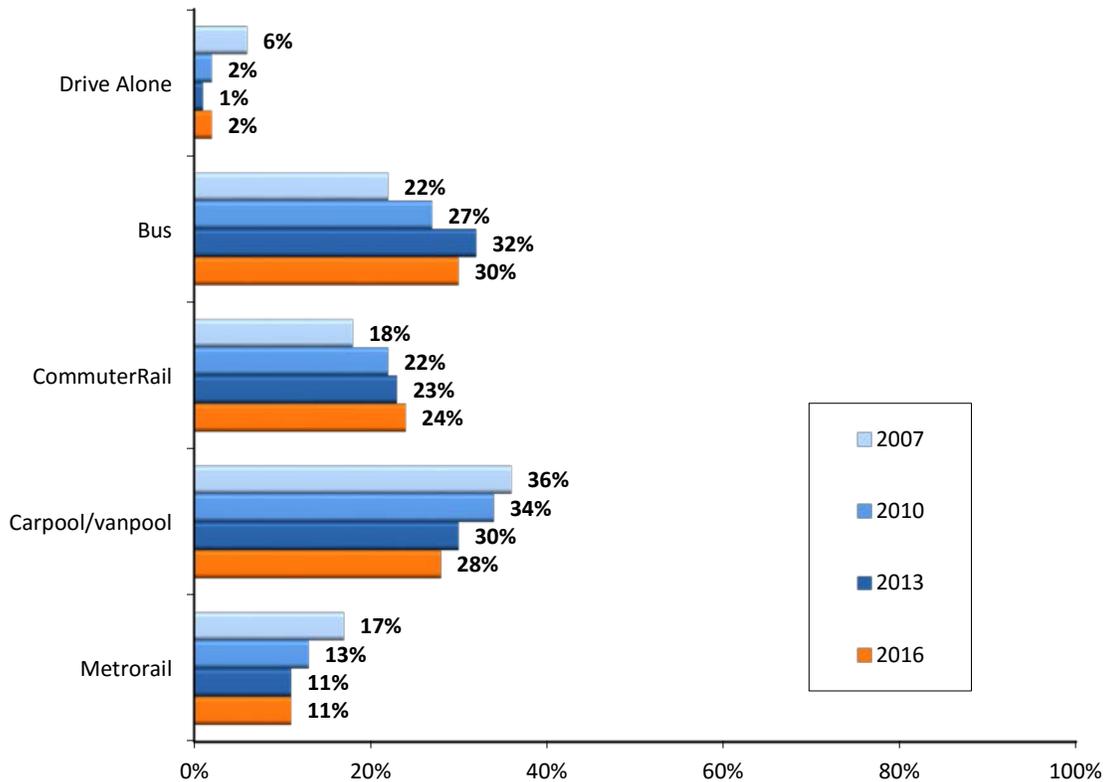
Pool Occupancy

The average number of occupants in GRH carpools and vanpools was 3.2 and 9.5 people, respectively. The carpool occupancy was similar to that found in the 2013 survey (3.0 occupants), but the vanpool occupancy has fallen from the 10.4 rates estimated in 2013.

Commute Length

Commute Miles – Commuters in the survey sample had 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 was 35.9 miles. This was considerably longer than the distance of 17.30 miles traveled by the average commuter in the Washington metro region, as defined by the 2016 regional State of Commute survey. More than six in ten (62%) GRH respondents commuted 30 or more miles to work, compared to just 18% of all regional commuters.

Figure 11
Commute Distance (miles) - GRH Registrants and All Regional Commuters

(GRH registransts n = 2,033; All regional commuters n = 4,766)
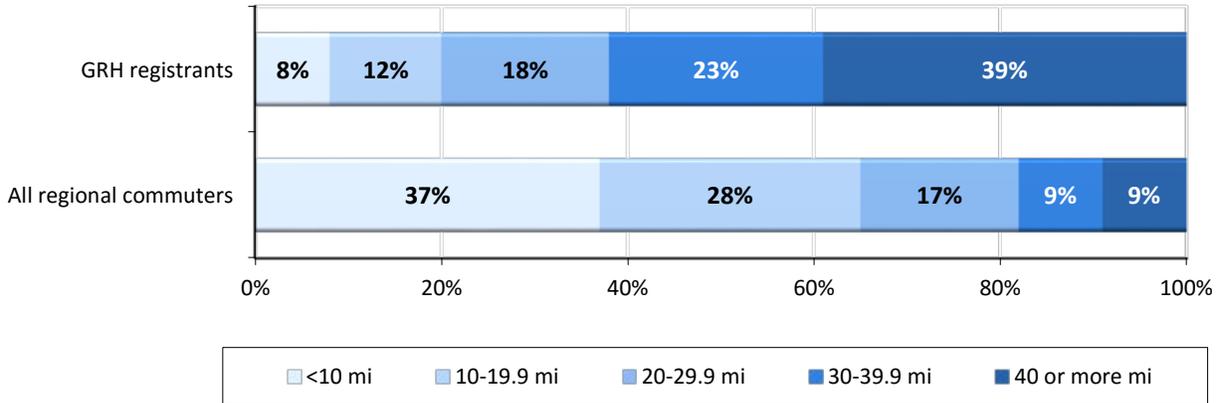
Commute Time – GRH participants commuted, on average, about 86 minutes one way. This was much longer than the 39 minute average commute time for all regional commuters. Seven in ten (72%) GRH participants commuted more than 45 minutes each way to work (Figure 12). Nearly half (48%) commuted more than an hour. Only 13% of all regional commuters traveled this long to work.

Figure 12
Commute Travel Time (minutes) – GRH Registrants and All Regional Commuters

(GRH registransts n = 2,069; All regional commuters n = 5,036)
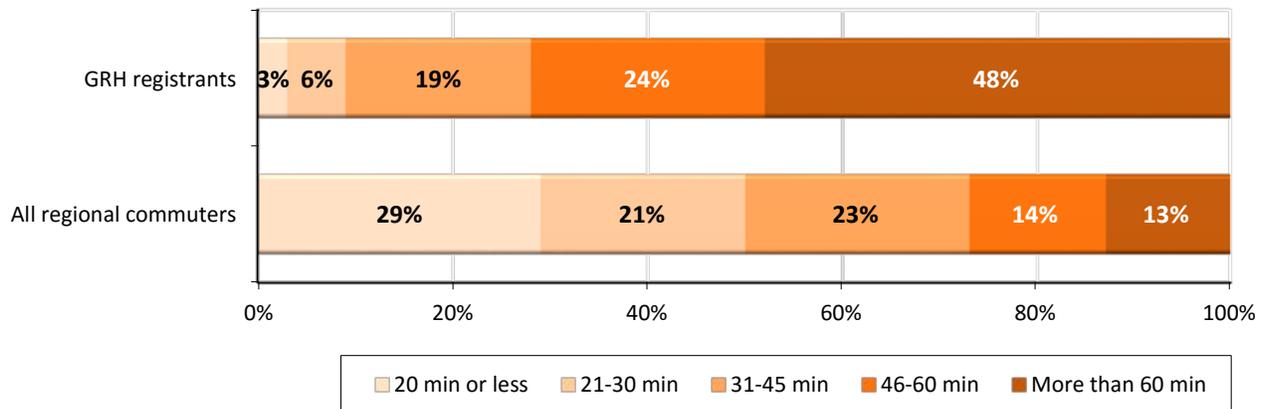
Primary Roads Used on the Trip to Work

The GRH survey also included a question in 2016 to identify the major Interstate and state roadways that commuters used 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.

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. In particular, did GRH encourage commuters who were driving alone to shift to alternative modes and did GRH encourage commuters who were using alternative modes to use them more days per week? 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 was 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 2016 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.

Table 8
Commute Modes Used One or More Days Per Week – During GRH Period
GRH Registrants (Current and Past Combined) and All Regional Commuters
(Percentages will not total to 100%; multiple responses permitted)

Commute Mode	2016 GRH Registrants (n = 2.171)	Regional 2016 SOC Survey** (n = 5,503)
Carpool/vanpool		
- Regular carpool	9%	5%
- Casual carpool (slug)	7%	1%
- Vanpool	15%	<1%
Transit		
Bus	31%	6%
Commuter Rail	26%	1%
Metrorail	15%	16%
Drive alone	8%	67%
Bike/walk	2%	4%
Compressed work schedule	13%	4%
Telework	34%	18%

* Data from 2016 State of the Commute regional survey for the Metropolitan Washington region.

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 was much different for GRH registrants. About half of the GRH registrants in the carpool/vanpool group vanpool (15% of 30%) and casual carpool accounts for nearly as high a percentage as regular carpool.

Transit – The bus and commuter rail mode groups show markedly different overall mode shares for the two populations. More than three in ten GRH registrants rode a bus, compared with about 6% of all regional commuters. Commuter rail use was even more dramatically different; nearly one-quarter (24%) of GRH registrants used commuter rail, compared with about 1% of commuters region-wide. By contrast, Metrorail ridership was nearly the same for GRH registrants (15%) and for all regional commuters (16%).

The disproportionate shares of commuter rail and vanpooling for GRH registrants likely are 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, commuter rail operators have promoted GRH, 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 was 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 = 2,171; Pre-GRH n = 2,085; excludes primary telework)
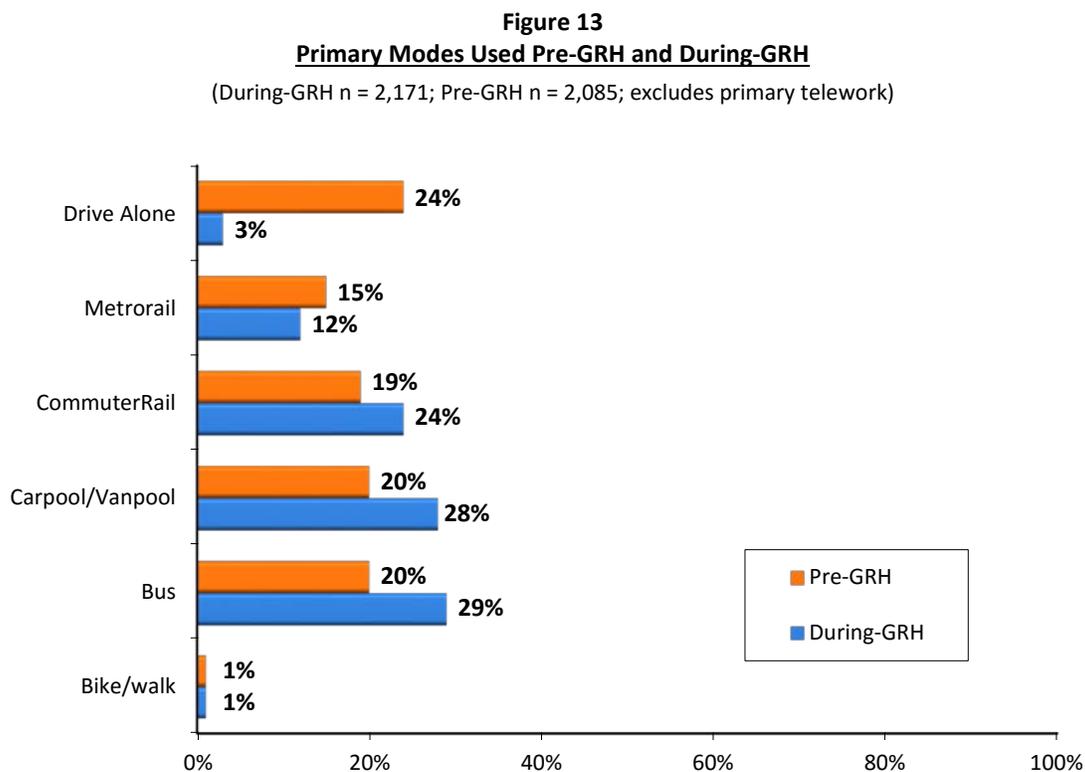
Note that the totals of these percentages do not add to 100%, because a small number of respondents said they primarily teleworked and that option is not shown. Additionally, 4% of respondents said they were not living or working in the Washington area before joining GRH. These respondents did not have a "pre-GRH" primary mode and were removed from the base.

One-quarter (24%) of respondents primarily drove alone pre-GRH. The Drive Alone mode share dropped to just 3% for the "During-GRH" time period and the share of respondents primarily using each alternative mode increased. Primary use of carpool/vanpool use increased from 20% pre-GRH to 28% During-GRH, bus use rose from 20% to 29%, and the share of respondents using commuter rail as their primary more grew from 19% to 24%. 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 (32%) drive alone respondents shifted to carpooling and 55% shifted to transit. About 9% 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 = 517)	9%	32%	28%	8%	19%
Alternative Modes					
- Carpool/vanpool (n = 397)	0%	77%	11%	1%	8%
- Bus (n = 422)	2%	10%	79%	3%	3%
- Metrorail (n = 305)	1%	11%	13%	58%	14%
- Commuter rail (n =396)	1%	8%	7%	2%	79%

Respondents who were using alternative modes before they joined GRH largely remained in their pre-GRH modes after they joined GRH. About eight in ten respondents who previously carpooled/vanpooled (77%), rode a bus (79%), or used commuter rail (79%) stayed in these modes. The Metrorail retention was noticeably lower, at 54%. But some switching occurred among alternative modes. About one 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 58 of the 2,171 respondents said they increased alternative mode frequency. But clearly, these respondents did increase their use of alternative modes.

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

(n = 58)
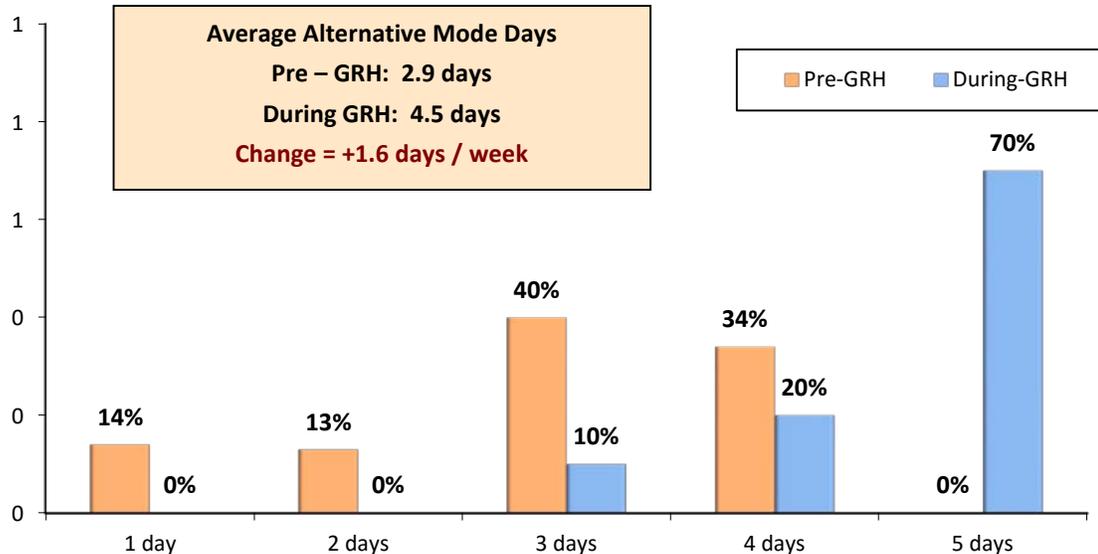
Before joining GRH, 34% of these respondents were using alternative modes four days per week and 40% were using alternative modes three days per week. About one-quarter (27%) used alternative modes one or two days per week before joining GRH. So, most respondents could add only one or two days of alternative mode use per week. During their GRH registration period, seven in ten (70%) were full-time users of alternative modes, while another 20% used alternative modes four days per week. Only one in ten used alternative modes less often than four days per week. This is consistent with the change in the overall increase in average alternative mode days from 2.9 days to 4.5 days, or about 1.6 days per week increase per respondent.

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.

The average number of days all GRH participants used alternative modes increased, from 3.4 days per week to 4.2 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 and two-days per week categories, it is clear that most of the respondents who never used alternatives before GRH started using alternatives at least three days per week During-GRH.

Figure 15
Days Using Alternative Modes Pre-GRH and During-GRH (All GRH Respondents)
(During-GRH n = 2,171; Pre-GRH n = 2,171)
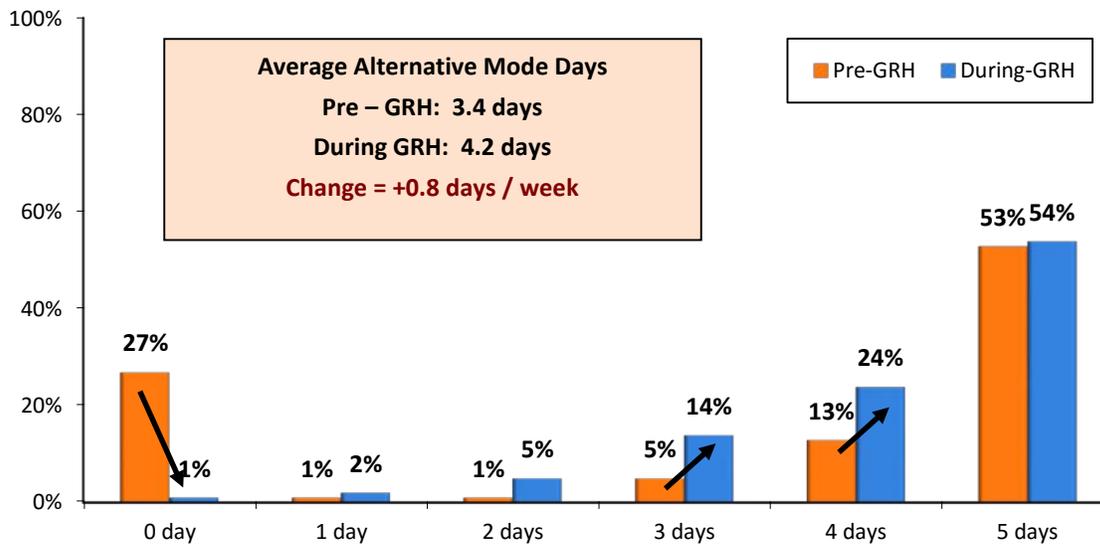
Influence of GRH on Commute Pattern Decisions

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 16 presents a breakdown of respondents into these alternative mode change groups. About two in ten (23%) respondents started using alternative modes 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 two previous GRH surveys (2010, and 2013).The largest share of respondents (73%) said they maintained but did not increase use of alternative modes they were using before GRH. This was as expected, since most respondents used an alternative pre-GRH and most used alternative modes four or five days per week pre-GRH. This percentage of "maintained" alternative mode use was about the same as in the past two GRH surveys in 2013 and 2010.

Figure 16
Alternative Mode Changes from Pre-GRH to During-GRH

(2010 n = 972, 2013 n = 2,226, 2016 n =2,085)
Note: Totals will not add to 100% because some respondents said they did not use an alternative mode "During-GRH"
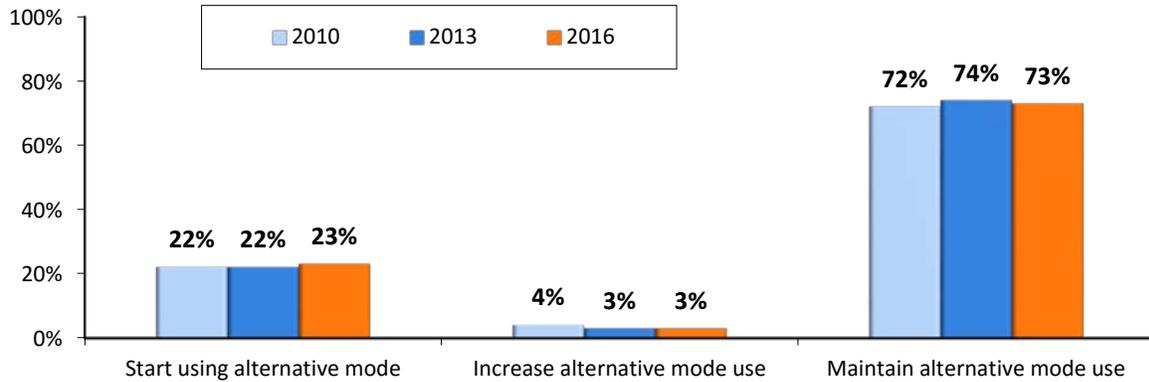
About 1% of respondents said they were not using an alternative mode while they were in GRH, even though the program requires them to be using an alternative mode to participate, about the same as the 1% in 2013 and 2% in 2010. Respondents who were not using an alternative mode could be explained by 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. Figure 17 presents the results for this question.

Figure 17
Importance of GRH to Start, Maintain, or Increase Alternative Mode Use

(Start n = 468; Increase n = 53; Maintain n = 1,459)
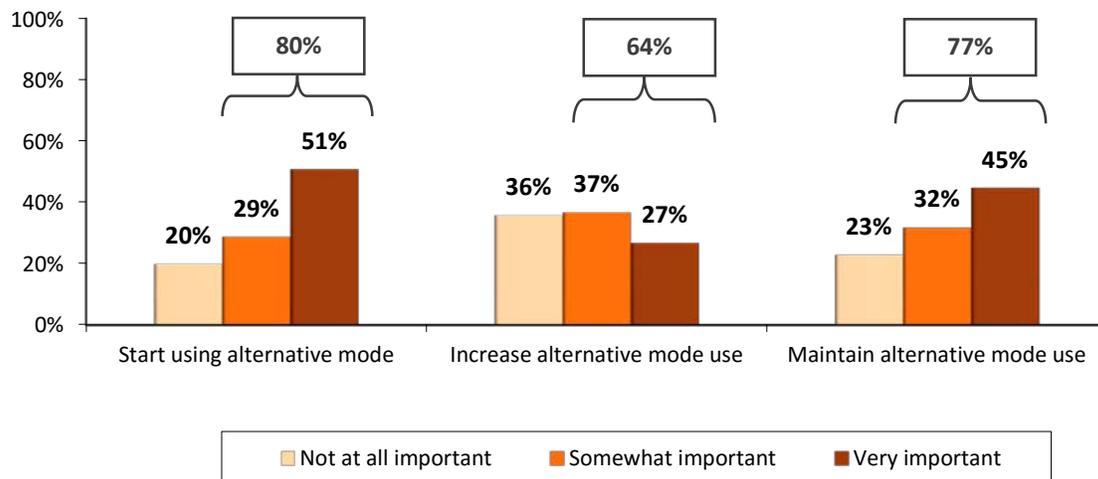
Start Using Alternative Mode – Eight in ten respondents who drove alone pre-GRH and started using alternative modes during-GRH said GRH was important to their decision to make the change. Half (51%) said GRH was very important and 29% said it was somewhat important to the decision. The remaining 20% said GRH was not at all important.

Increase Use of Alternative Mode – GRH appeared to be slightly less important to respondents who increased use of alternative modes than for those who started use of alternatives, with 64% of respondents who increased alternative mode said it was either very important (27%) or somewhat important (37%).

Maintain Use of Alternative Mode – GRH appears to be similarly important for respondents who maintained alternative mode use as for those who started using alternative modes. About 77% of respondents who maintained alternative mode use said GRH was very important (45%) or somewhat important (32%) 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 18.

Figure 18
Importance of GRH to Maintain Alternative Mode Use by Alternative Mode used Pre-GRH

(Carpool n = 221; Vanpool n = 143; Bus n = 393; Metrorail n = 289; Commuter Rail n = 367)
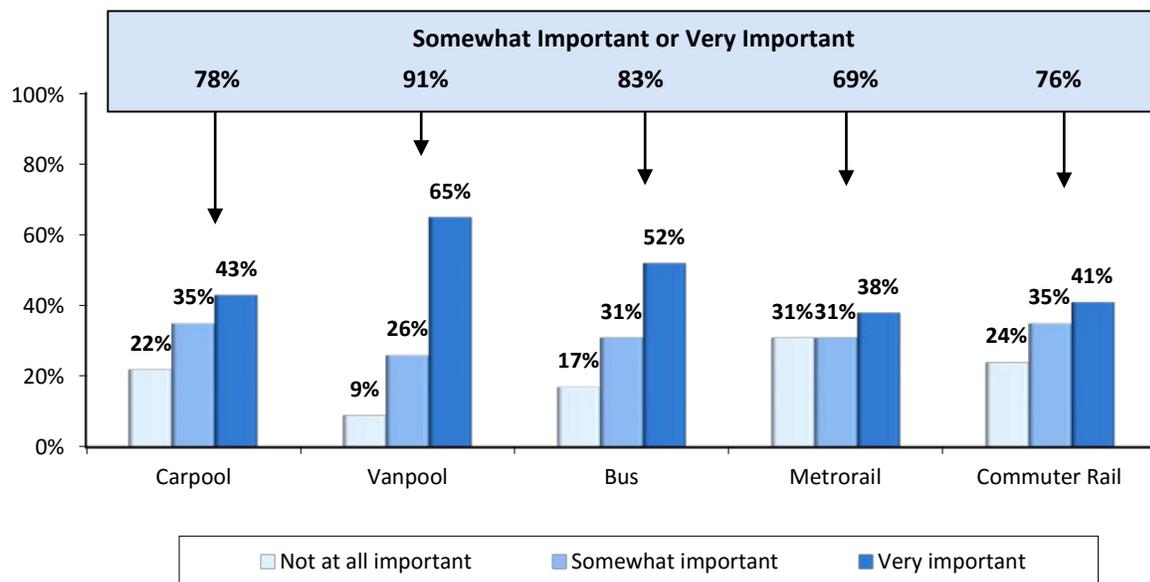
Nine in ten (91%) respondents who were vanpooling pre-GRH said GRH had been somewhat or very important to their decision to continue using this mode. Bus riders also rated GRH as quite important, with 83% saying it was somewhat or very important. Three-quarters of carpool (78%) and commuter rail riders (76%) said GRH was important. But only about seven 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.

Importance of GRH by Registration Status – Figure 19 presents the relative importance of GRH to current regis-
trants and past registrants. Among participants who <u>started</u> using an alternative mode, 81% of current registrants
rated GRH as either important or very important and 79% of past registrants gave these high ratings. A greater dif-
ference was noted between current and past registrants who continued using an alternative; 79% of continued
registrants (79%) said it was important, compared with 70% of past registrants.

Figure 19
Importance of GRH to Decision to Start or Maintain Alternative Mode by Registration Status – Current or Past
(Start alternative mode: Current registrants n = 387; Past registrants n = 81)
(Maintain alternative mode: Current registrants n = 1,112; Past registrants n = 337)
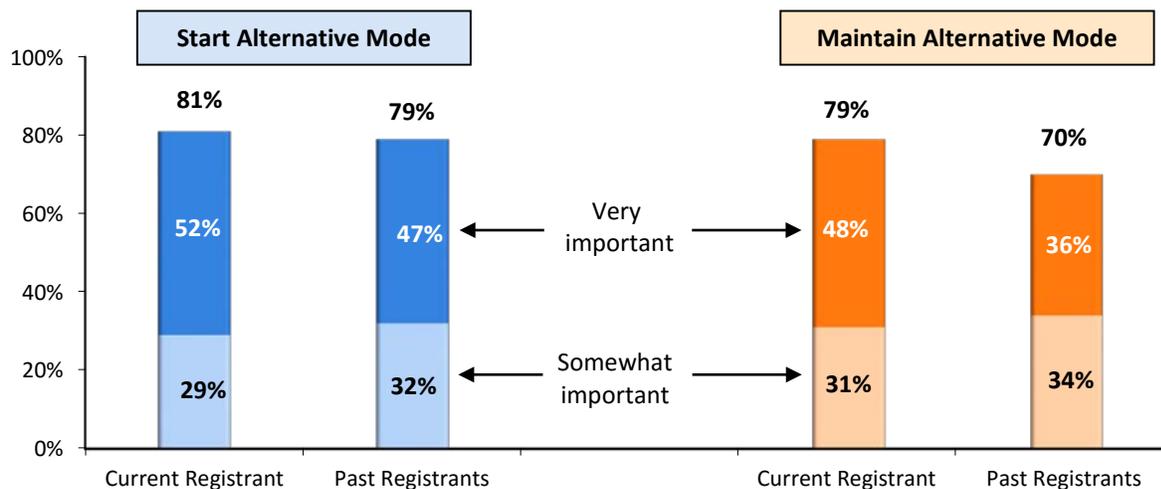
Likelihood to Make Alternative Mode Changes if GRH Not Available

Respondents also were asked if they would have made the same commute pattern decisions if GRH had not been
available to them. Figure 20 shows how likely respondents were to have started, increased, or maintained use of
alternative modes if GRH had not been available to them.

Start Using Alternative Mode – More than half (52%) of respondents who started using alternative modes said
they were not likely (18%) or only somewhat likely (34%) 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 identical to the results from the 2013 survey.

Figure 20
Likely to Start, Maintain, or Increase Use of Alternative Modes if GRH Not Available
(Start n = 453; Increase n = 53; Maintain n = 1,424)
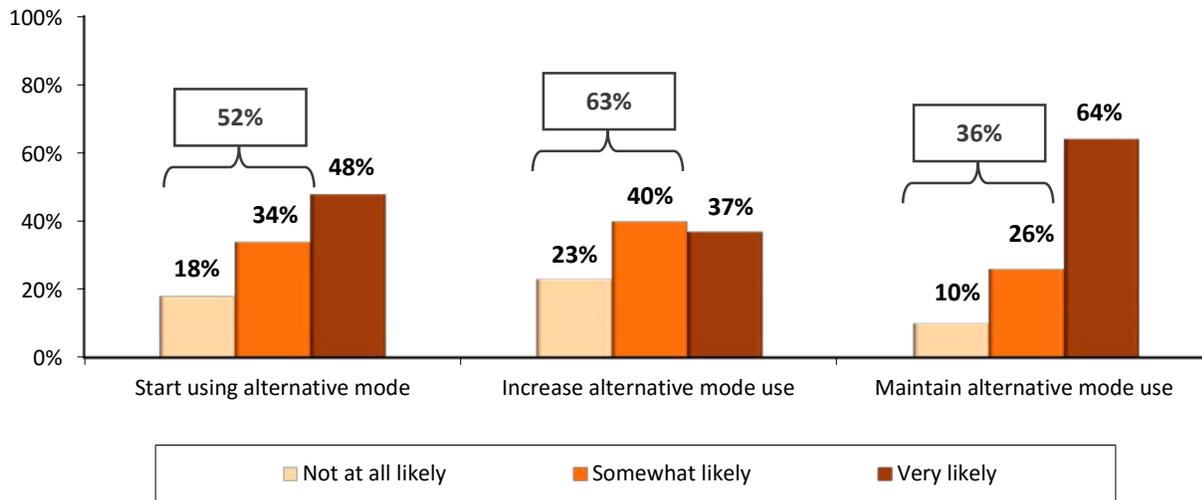
Increase Use of Alternative Mode – A small number of respondents used alternative modes pre-GRH but increased their use of these modes while participating in GRH. GRH seemed to be of slightly more valuable to these respondents as to those who started using alternative modes. Twenty-three percent were not at all likely to have made this change without GRH and 40% were 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); 64% said they were very likely to have continued in this mode if GRH had not been available. One in ten (10%) said they were not at all likely to have continued that mode and 26% were somewhat likely to have continued that mode without GRH.

Likelihood to Start or Continue Modes by Registration Status – Finally, Figure 21 shows differences between current and past registrants in <u>likelihood</u> to start or maintain alternative modes without GRH. There was no statistical difference between current and past registrants for their likelihood to start alternative modes alternative modes. Among respondents who maintained alternative mode use, a higher share of current registrants (38%) than past (31%) said they were not likely or only somewhat likely to take this action without GRH.

Figure 21
Likely to Start or Maintain Alternative Modes Without GRH by Registration Status – Current or Past
(Start alternative mode: Current registrants n = 376; Past registrants n = 77)
(Maintain alternative mode: Current registrants n = 1,086; Past registrants n = 337)
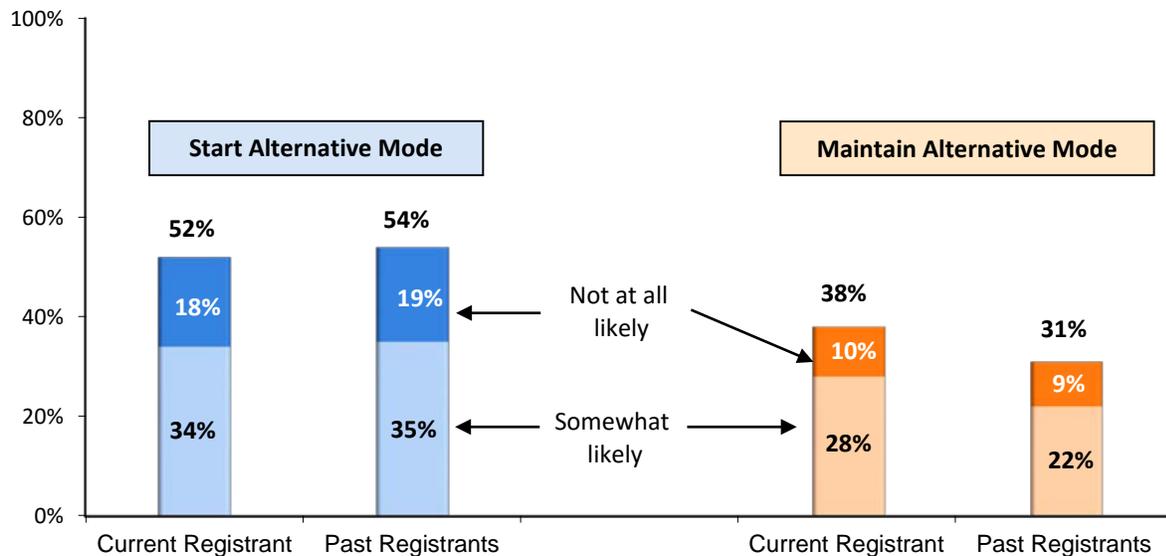
Other Influences Motivating Commute Changes

Figures 17 through 21 presented an apparent contradiction. Despite the high percentage of respondents who rated 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 <u>essential</u> 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 22 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 22
Assistance or Benefits Received from Commuter Connections, In Addition to GRH – All Respondents
(2013 n = 2,374, 2016 n = 2,171)
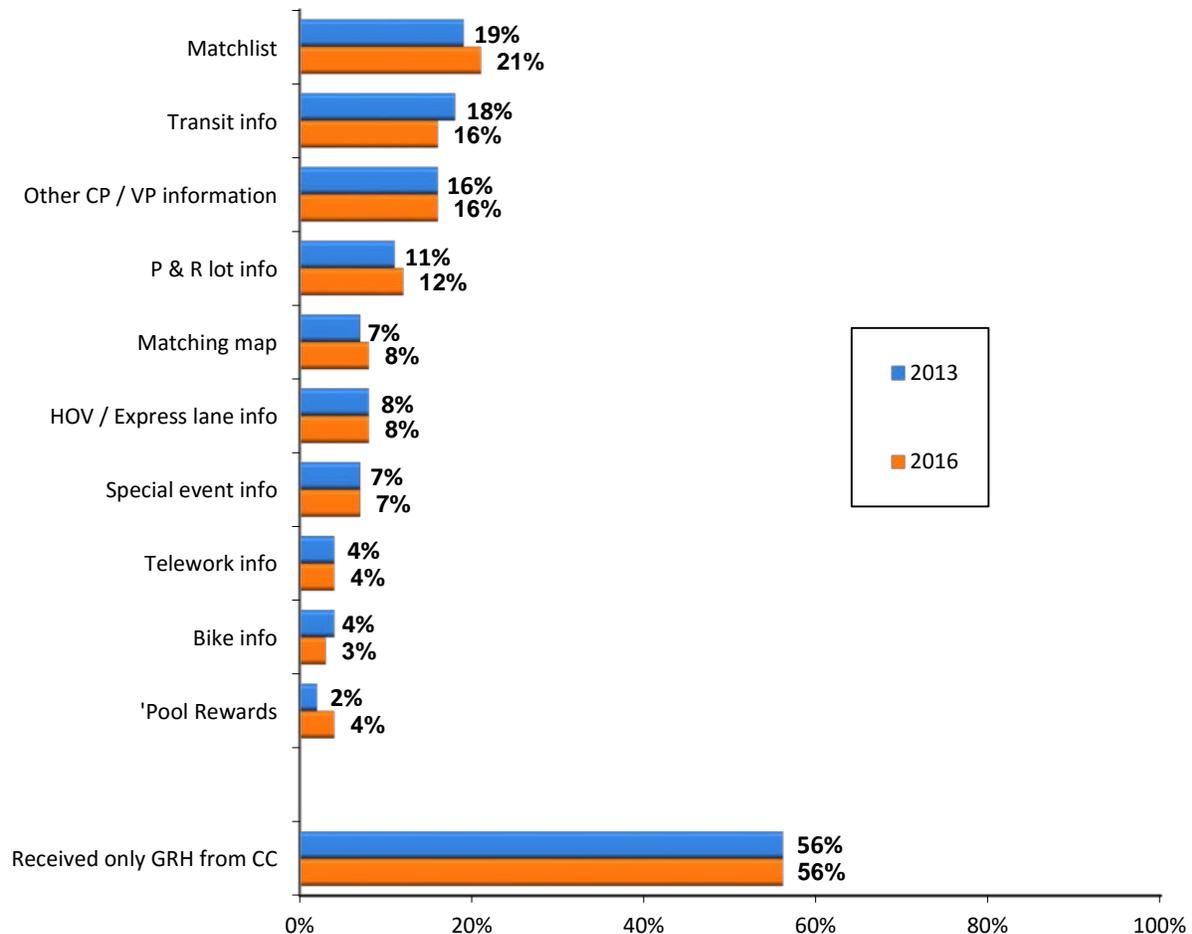
The most common services focused on carpool/vanpool assistance. About two in ten (21%) received a matchlist with names of potential carpool/vanpool partners, 8% received a rideshare matching map, and 16% received "other" carpool or vanpool information. Sixteen percent obtained transit route or schedule information and 12% 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 (3%). The percentages of 2016 survey respondents who received each service were essentially as for the 2013 GRH survey.

Figure 23 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 23
Assistance/Benefits Received from Commuter Connections In Addition to GRH – By Type of Commute Change
(Started alt mode n = 484; Increased alt mode n = 58; Maintained alt mode n = 1,510)
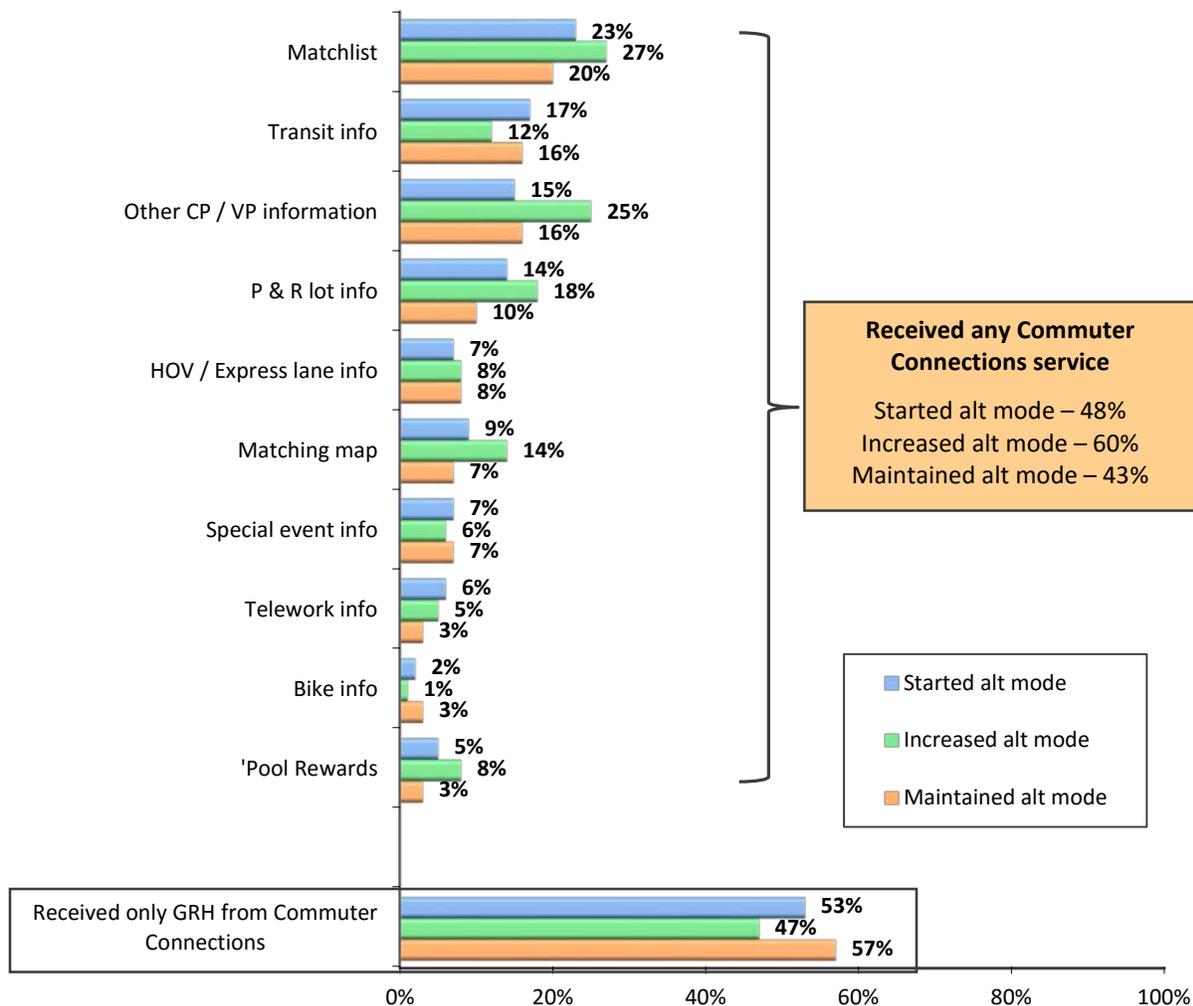
Respondents who reported starting a new alternative mode and those who maintained alternative mode use received non-GRH Commuter Connections services at about the same rate (Started 47% vs Maintained 43%). They also received most individual services at about the same rate. Respondents who increased alternative modes were slightly more likely to have received some non-GRH services; 53% mentioned receiving at least one of the non-GRH services presented to them. They used some individual services at a higher rate than did respondents who either started or maintained alternative mode use. But the sample of respondents who increased alternative mode use was small (n = 58) relative to the other groups and only the difference in use of "other carpool/vanpool information" is statistically significant.

Commuter Connections Assistance or Benefits that Were 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 use of alternative modes. Overall, 18% said they received a service that was more important than GRH had been to their decision to start, increase, or maintain alternative mode use. One-quarter (26%) said GRH had been more important than the other services. And as noted earlier, the remaining 56% said GRH was the only

Commuter Connections service they used. Figure 24 presents the percentage of respondents who reported each other service by the type of alternative mode use decision they made: to start, increase, or maintain use of alternative modes.

Figure 24
Commuter Connections Assistance or Benefits – More Important than GRH to Mode Decisions
(Started alt mode n = 484; Increased alt mode n = 58; Maintained alt mode n = 1,510)
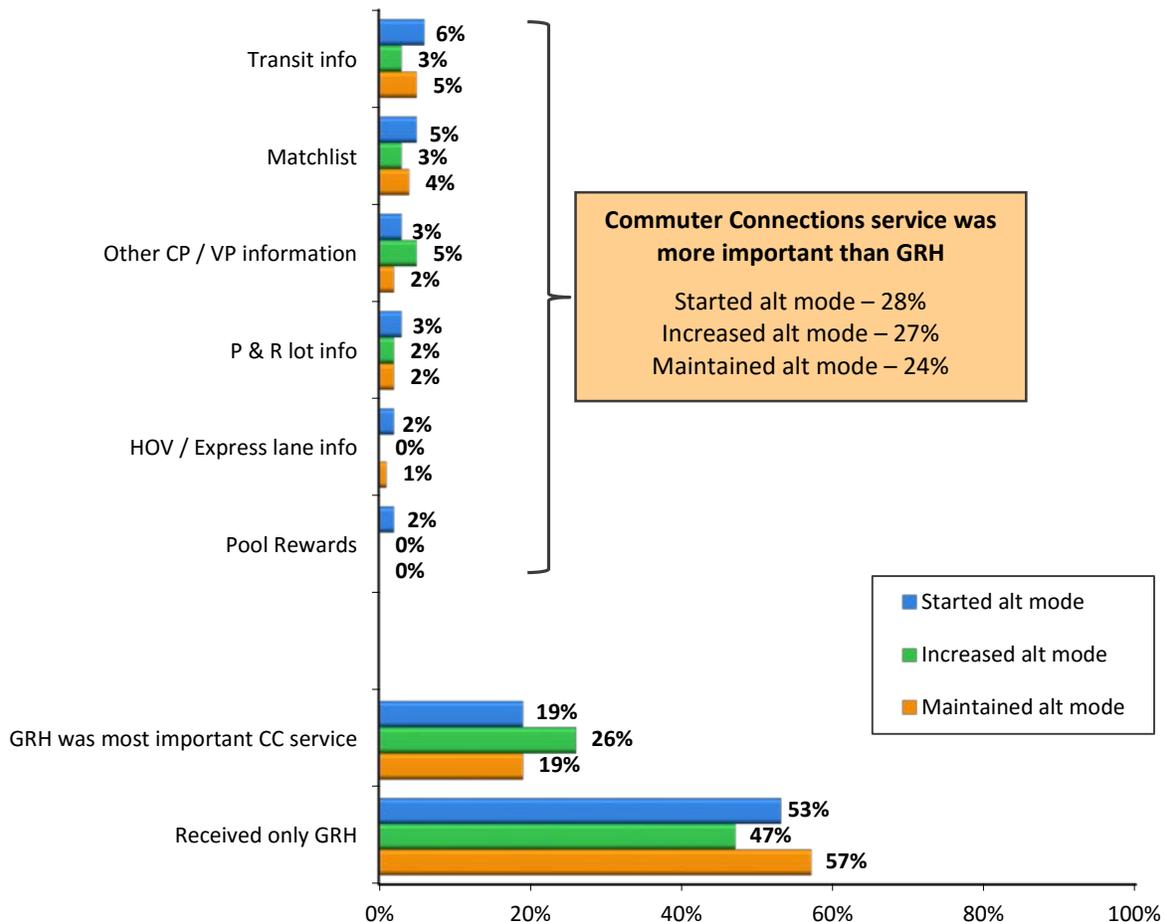
As noted earlier, some respondents said the only Commuter Connections service they have received was GRH (Started alt mode – 53%, Increased – 47%, Maintained – 57%). But even among respondents who did receive other Commuter Connections services, most said GRH was the most important of these services (Started – 19%, Increased – 26%, Maintained – 19%). Accounting for these two groups, this leaves relatively small shares of respondents who mentioned another Commuter Connections service that was more important than GRH. About three in ten respondents who started an alternative mode and the same share 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, 24% 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 (31% 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. Nearly two-thirds (64%) said that no other factors or circumstances influenced their decision, but 36% mentioned one or more other factors (Figure 26). The most common factors were a desire to save money (8%), have an easier or more convenience commute (7%), help the environment or reduce traffic (6%), or avoid driving (5%).

Figure 25
Other Factors/Circumstances Important to Decision to Make a Change in Alternative Modes

(n = 2,171, multiple responses permitted)
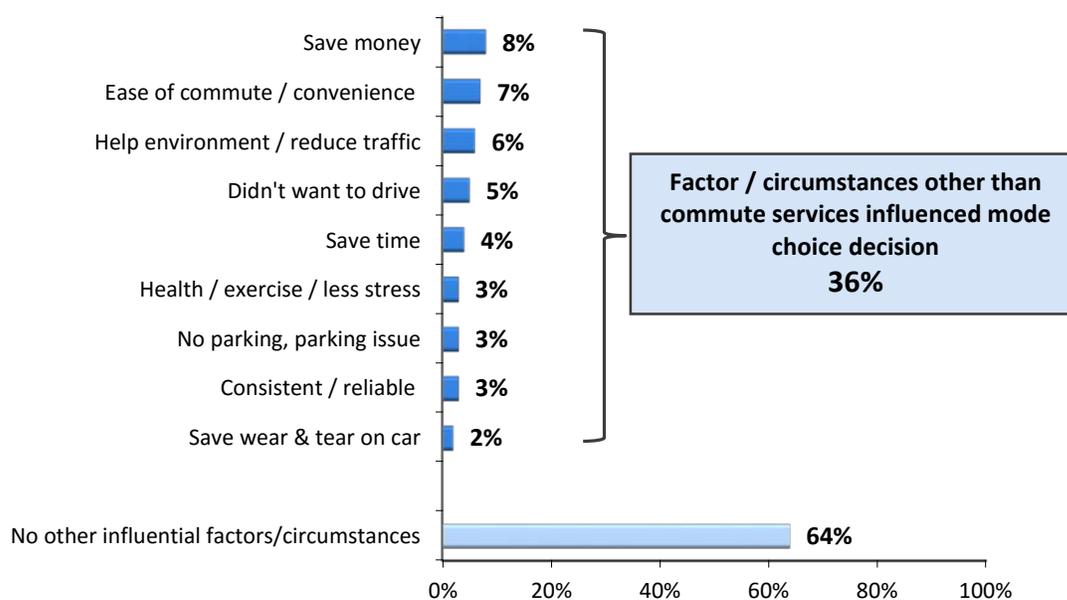
Use of and Satisfaction With GRH

Characteristics of Participants Who Used GRH Trips

Used GRH Trip by Registration Status – One-third (33%) of respondents said they had taken a GRH trip (Table __). This was about the same as the 31% reported in 2013 and the 33% in 2010. Current registrants (36%) used GRH trips at a higher rate than did past registrants (27%). This could be because current registrants had been participating in GRH for a longer time period than past registrants. Thus, they 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 = 2,141)	Current Registrants (n = 1,650)	Past Registrants (n = 491)
Yes	33%	36%	27%
No	67%	64%	73%

Used GRH Trip by During-GRH Modes – Figure 26 compares use of GRH by five "During-GRH" mode groups: carpool, vanpool, bus, commuter rail, and Metrorail. Carpoolers and vanpoolers were more likely to have used a GRH trip than were transit riders. Metrorail riders had the lowest usage; only 18% of these respondents had taken a GRH trip.

Figure 26
Used GRH Trip by Primary Mode Used During-GRH

(All respondents n = 2,141; Carpool n = 267; Vanpool n = 294; Bus n = 587; Commuter rail n = 485; Metrorail n = 234)
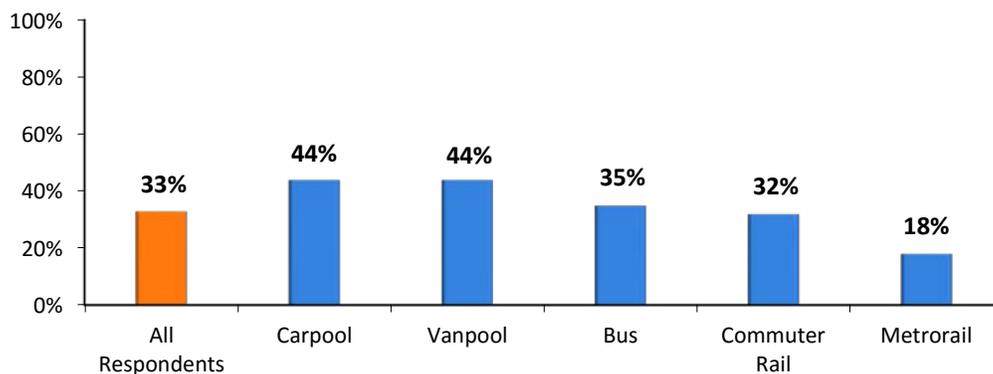
Used GRH Trip by Commute Distance – Figure 27 presents a comparison of the use of GRH by the commute distance of respondents. The average one-way distance of a respondent who used a GRH trip was 39.8 miles one-way, compared to 35.9 miles for all GRH respondents overall and GRH use rose as commute distance increased. About 18% of respondents who traveled less than 10 miles and 26% of those who traveled between 10 and 19.9 miles one-way used GRH. By contrast, about one-third of respondents with commute distances between 20 and 29 miles (32%) and between 30 and 39 miles (34%) had taken a trip. Among respondents who traveled 40 or more miles, GRH use was even higher; 38% made a GRH trip. This suggests that registrants with shorter commutes found 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 paid themselves.

Figure 27
Used GRH Trip by Commute Distance (miles)

(Less than 10 mi n = 146; 10-19.9 mi n = 233; 20-29.9 mi n = 373; 30-39.9 mi n = 4455; 40 mi or more n = 806)
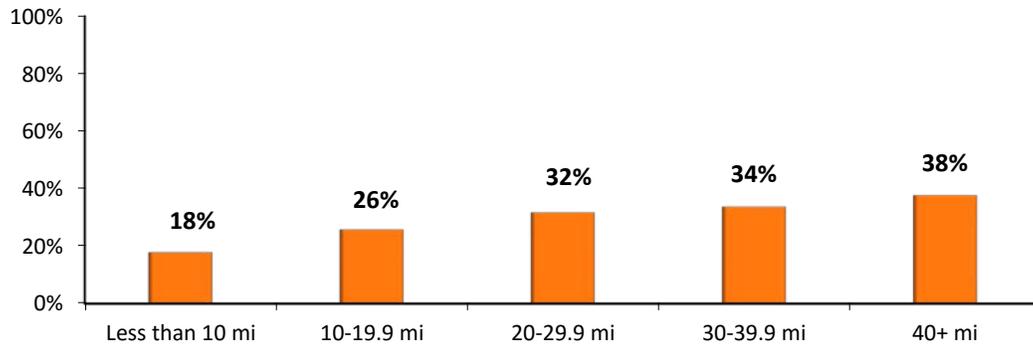
Reasons for Taking GRH Trip

Figure 28 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. Three-quarters of all GRH trips were taken to address an illness: respondent (32%), another family member (27%), or a child (16%). Unscheduled overtime (12%) and other personal emergency (9%) were the two other common reasons.

Figure 28
Reason for Taking Most Recent GRH Trip

(n = 710)
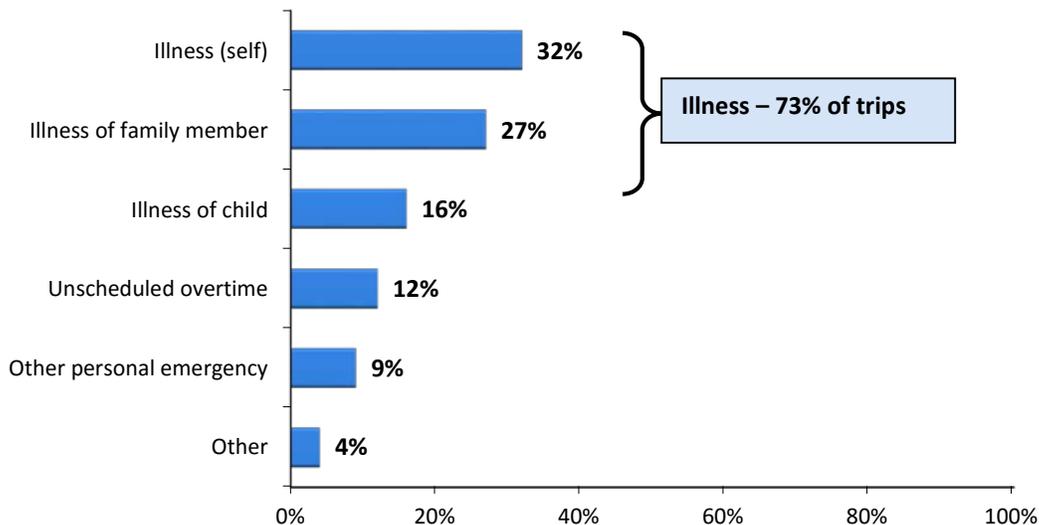
Satisfaction With the Trip

Participants, who had taken a GRH trip were asked if the service was satisfactory. The overwhelming majority (94%) said they were satisfied. The primary reasons given by the unsatisfied respondents include: waited too long (17 respondents), difficult to get approval (8 respondents), or didn't like the taxi driver (2 respondents).

Respondents waited an average of 15 minutes for a taxi, one minute less than the time calculated for the 2013 survey and two minutes less than the time in the 2010 survey (Table 11). In 2016, more than half (56%) said the taxi arrived within 10 minutes and nearly nine in ten (87%) respondents waited 20 minutes or less.

Table 11
Time Waited for Taxi

(n = 636)

Wait Time	Percentage	Cumulative Percentage
5 minutes or less	28%	28%
6 to 10 minutes	28%	56%
11 to 20 minutes	29%	87%
21 to 30 minutes	9%	95%
31 to 45 minutes	2%	97%
46 or more minutes	4%	100%

Desired Improvements to the GRH Program

Participants appear to be generally quite satisfied with the GRH Program. Fourteen percent of respondents said no improvement was necessary for the GRH program. An additional 55% of participants did not provide any suggestions for improvements. The remaining 30% mentioned the suggestions detailed in Table 12.

The most frequently mentioned improvement was more advertising or more program information, named by 10% of respondents, about the same percentage as mentioned it in 2013 (11%). All other responses were cited by fewer than 5% of respondents and the results were consistent with the results of the 2013 survey.

There were a few statistical differences in the improvements desired by current registrants versus past registrants in all cases with higher shares of past registrants mentioning the improvements:

- Easier/faster approval – 5% of past registrants vs 1% of current registrants
- Send renewal reminder – 9% of past registrants vs 1% of current registrants
- Relax program restrictions – 7% of past registrants vs 3% of current registrants
- Advertise more – 13% of past registrants vs 9% of current registrants

Table 12
Suggested Improvements to GRH Program

(n = 2,171)

Desired Improvement	Percentage*
More advertising / more program information	10%
Relax conditions / supervisor approval	4%
Send annual e-mail reminder for renewal	3%
Quicker response for ride requests	3%
Improve dispatching (faster, nicer)	2%
Easier/faster approval / online registration	2%
Allow more trips per year	1%
Wider area for trips	1%
Other	5%
No improvement needed	14%
Don't know / no suggestions provided	55%

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

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

APPENDICES

APPENDIX A – DISPOSITION OF FINAL DIALING RESULTS

APPENDIX B – SURVEY QUESTIONNAIRE

APPENDIX C – RESPONDENT ALERT LETTERS

APPENDIX D – RESULTS FROM 2016, 2013, 2010, 2007, AND 2004 GRH SURVEYS -
        COMPARISON ON KEY QUESTIONS

APPENDIX A – DISPOSITION OF FINAL DIALING RESULTS

Dialing Disposition at Conclusion of Survey	Telephone Survey	
	Number	Percent
Completed Interviews	177	7.9%
No Answer	128	5.7%
Answering Machine	1,271	57.0%
Busy	41	1.8%
Arranged Call Back	113	5.1%
Respondent Never Available	3	0.1%
Not In Service	403	18.1%
Wrong Number	4	0.2%
Fax	6	0.3%
Other Language	1	< 0.1%
Refused	40	1.8%
Respondent Terminated	3	0.1%
No Longer with Company	1	< 0.1%
Lives Outside of Study Area	12	0.5%
Retired	20	0.9%
Respondent Screened Out	6	0.3%
Total	2,229	100.0%
Total Dialings	4,336	
Average Dialings Per Complete	24.5	

APPENDIX B – SURVEY QUESTIONNAIRE
MWCOG 2016 Guaranteed Ride Home Survey - Internet Version

INTRODUCTION

Commuter Connections is conducting this online survey or 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.   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. If you need to go back to change an answer to a previous question, use the back button on your browser. Thank you for your participation

REGISTRATION INFORMATION

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

        1   Before 2011 **(SKIP TO Q2)**
        2   2011 **(SKIP TO Q2)**
        3   2012 **(SKIP TO Q2)**
        4   2013 **(SKIP TO Q2)**
        5   2014 **(SKIP TO Q2)**
        6   2015 **(SKIP TO Q2)**
        7   2016 **(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
8   0 weekday (not currently working or work only on weekends) **(THANK AND TEERMINATE)**

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

1.   Full-time, 5 or more days per week
2.   Part-time
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, Bridj, 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, Uber, Lyft, Split	

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 <u>carpool or vanpool</u>? (**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?"

"What major state or US routes?"

"Any other <u>major</u> 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 home by (or leave from home with) 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 bus stop/train 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 <u>*registered, eligible*</u> 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 <u>more than one type on a single day</u> (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 <u>*Registered or Eligible*</u> 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, Bridj, 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, Uber, Lyft, Split	

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 <u>before you heard about</u> 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 <u>before you heard about GRH</u>, 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 <u>more than one type on a single day</u> (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, Bridj, 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, Uber, Lyft, Split	

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 <u>before you registered</u> 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, Not used*	
9 Bus (public or private bus, shuttle, Bridj, 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, Uber, Lyft, Split	

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 BRCMA 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
IFGRHTYPE = 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 - <u>carpooling, vanpooling, using transit, biking, or walking (FROM Q23)></u>?

        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

<u>INCREASED ALT MODE USE SINCE GRH – GRH IMPORTANCE (Current, Past, OTE)</u>

 (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 tranportation 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

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

<u>Past Registrants</u>
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.

<u>One-Time exceptions</u>
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 - <u>carpooling, vanpooling, using transit, biking, or walking (FROM Q29)></u>
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 - <u>carpooling, vanpooling, using transit, biking, or walking (FROM Q29)></u>
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 - <u>carpooling, vanpooling, using transit, biking, or walking (FROM Q26)></u>
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 a non-drive alone 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 a non-drive alone 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/vanpool 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/vanpool 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/vanpool 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

<u>INSTRUCTIONS BEFORE Q45</u>
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 - <u>carpool, vanpool, use transit, bike, or walk (FROM Q14)</u>>?

    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 - <u>carpool, vanpool, use transit, bike, or walk (FROM Q23)</u>>?

    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 carpool/vanpool
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 - $199,999
    12   $200,000 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 over-seeing 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 <u>even if you are no longer registered in the program and/or have not used a GRH trip</u>. 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 re-gional GRH program. Thank you in advance for your help. If you have any questions about this study, please con-tact 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 over-seeing 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 re-gional GRH program. Thank you in advance for your help. If you have any questions about this study, please con-tact me at (202) 962-3200.

Sincerely,

Nicholas W. Ramfos
Director, Commuter Connections

APPENDIX D
Results from 2016, 2013, 2010, 2007, and 2004 GRH Surveys
Comparison on Key Questions

Registration Information

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

	2016	2013	2010	2007	2004
Current registrant	44%	51%	40%	61%	59%
Past registrant	55%	49%	60%	39%	39%
One-time exception	1%	0%	0%	0%	2%

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

	2016	2013	2010	2007	2004
Less than 1 year	11%	15%	12%	2%	7%
1 year	11%	14%	21%	28%	29%
2 years	11%	13%	15%	34%	21%
3 years	9%	9%	9%	5%	17%
More than 3 years	58%	49%	43%	26%	26%

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

	2016	2013	2010	2007	2004
Program Related Reasons					
Didn't know I had to re-register	23%	23%	21%	11%	14%
Didn't get around to it, forgot	20%	22%	32%	24%	13%
Dissatisfied, bad experience	9%	6%	6%	---	5%
Had a problem with registering	6%	7%	10%	---	---
Too much effort to use program	2%	3%	0%	---	2%
Personal Circumstance Reasons					
Never used program	10%	9%	6%	17%	6%
Changed job/work hours	8%	18%	10%	25%	27%
Moved to different residence	4%	4%	6%	6%	3%
Needed car for work/other purpose	3%	4%	5%	6%	10%
Couldn't CP/VP/use transit 2+ dy/wk	6%	8%	3%	6%	6%
CP/VP/Transit didn't work out	---	---	3%	5%	10%

GRH Information Sources

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

	2016	2013	2010	2007	2004
Word of mouth – referral	30%	31%	35%	34%	26%
Internet	11%	9%	14%	11%	11%
Radio	10%	12%	12%	16%	16%
Employer/employee survey	9%	9%	8%	7%	10%
Bus/train sign	4%	5%	4%	4%	7%
Other Rideshare/Transit Org	4%	5%	2%	----	----
Advertisement	4%	2%	3%	----	----
Commuter Connections (other)	4%	3%	2%	----	----
Brochure/promo materials	3%	3%	4%	7%	6%
Direct mail/postcard from CC	<1%	2%	3%	6%	5%
Bus/train schedule	<1%	<1%	0%	4%	1%
Television	<1%	<1%	2%	3%	3%
Newspaper/Newsletter	<1%	<1%	3%	4%	3%
Other	3%	5%	2%	7%	5%

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

	2016	2013	2010	2007	2004
Heard or saw GRH ad	58%	57%	62%	57%	72%
Registered after hearing ads	37%	39%	38%	36%	54%
Ad encouraged registration	30%	33%	33%	34%	49%

Current Travel Information

- **Current mode split** – Primary mode

Current Registration	2016	2013	2010	2007	2004
DA/Motorcycle	2%	1%	2%	6%	5%
Bus	30%	31%	27%	22%	19%
Commuter Rail	24%	23%	22%	18%	24%
CP/VP	28%	30%	19%	36%	36%
Metrorail	11%	11%	13%	17%	14%
Bike/walk	1%	2%	1%	<1%	2%
Telework	4%	2%	1%	<1%	<1%

Past Registrants	2016	2013	2010	2007	2004
DA/Motorcycle	25%	31%	29%	42%	41%
Bus	19%	19%	19%	9%	13%
CP/VP	17%	18%	14%	17%	20%
Commuter Rail	17%	14%	12%	5%	12%
Metrorail	12%	12%	10%	22%	9%
Bike/walk	2%	2%	2%	3%	2%
Telework	7%	4%	3%	3%	2%

- **Average length of commute**

	2016	2013	2010	2007	2004
Distance (miles)	35.9 mi	35.4 mi	36.5 mi	34.5 mi	32.7 mi
Time (minutes)	68 min	66 min	67 min	63 min	50 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 (excludes telework as primary mode)

Pre-GRH	2016	2013	2010	2007	2004
Drive alone/Motorcycle/Taxi	24%	24%	23%	31%	26%
Carpool/Vanpool	19%	23%	27%	26%	29%
Bus	20%	19%	17%	17%	16%
Metrorail	15%	14%	16%	19%	14%
Commuter Rail	19%	18%	15%	11%	13%
Bike/Walk	1%	----	----	----	----

During-GRH	2016	2013	2010	2007	2004
Drive alone/Motorcycle/Taxi	3%	3%	4%	14%	5%
Carpool/Vanpool	28%	30%	33%	34%	35%
Bus	29%	30%	27%	24%	21%
Metrorail	12%	12%	14%	18%	15%
Commuter Rail	24%	22%	20%	16%	20%
Bike/Walk	1%	----	----	----	----

- **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

Pre-GRH	2016	2013	2010	2007	2004
0 days/week	27%	26%	23%	32%	26%
1 day/week	1%	1%	0%	0%	0%
2 days/week	1%	1%	1%	2%	1%
3 days/week	5%	5%	2%	1%	2%
4 days/week	13%	13%	11%	9%	11%
5 days/week	53%	54%	62%	56%	60%
Average days/week	3.4	3.4	3.7	3.2	3.5

During-GRH	2016	2013	2010	2007	2004
0 days/week	1%	1%	2%	10%	4%
1 day/week	2%	1%	1%	1%	1%
2 days/week	5%	3%	2%	1%	1%
3 days/week	15%	11%	6%	3%	3%
4 days/week	24%	24%	22%	14%	16%
5 days/week	53%	60%	67%	71%	74%
Average days/week	4.2	4.4	4.4	4.2	4.5

Influence of GRH on Commute Pattern Decisions

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

	2016	2013	2010	2007	2004
Started using alternative mode	23%	22%	24%	22%	24%
Increased alt mode use (frequency)	3%	3%	4%	5%	4%
Maintained use of alternative mode	73%	74%	67%	64%	67%
No alt mode "with-GRH"	1%	1%	0%	9%	4%

  Note this table does not include respondents who said they did not commute in the Washington metro-
  politan 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

	2016	2013	2010	2007	2004
n=	468	479	208	199	229
Very important	51%	50%	50%	50%	46%
Somewhat important	29%	30%	30%	19%	26%
Not at all important	20%	20%	20%	31%	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

	2016	2013	2010	2007	2004
n=	58	70	28	32	44
Very important	27%	37%	43%	28%	27%
Somewhat important	37%	38%	39%	38%	30%
Not at all important	36%	25%	18%	35%	43%

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

	2016	2013	2010	2007	2004
n=	1,459	1,606	678	604	596
Very important	45%	43%	46%	43%	40%
Somewhat important	32%	32%	33%	31%	32%
Not at all important	23%	25%	21%	26%	28%

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

	2016	2013	2010	2007	2004
n=	453	464	204	201	225
Very likely	48%	48%	51%	65%	50%
Somewhat likely	34%	34%	33%	24%	28%
Not at all likely	18%	18%	6%	11%	22%

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

	2016	**2013**	**2010**	**2007**	**2004**
n=	53	66	42	33	42
Very likely	37%	43%	48%	48%	48%
Somewhat likely	40%	41%	28%	21%	23%
Not at all likely	23%	16%	24%	32%	29%

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

	2016	**2013**	**2010**	**2007**	**2004**
n=	1,424	1,572	653	603	573
Very likely	64%	68%	65%	66%	71%
Somewhat likely	26%	25%	29%	25%	23%
Not at all likely	10%	7%	5%	9%	6%

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

	2016	**2013**	**2010**	**2007**	**2004**
Save money	8%	10%	13%	19%	12%
Commute ease/flexibility/convenience	7%	8%	9%	0%	0%
Help environment / reduce traffic	6%	5%	2%	0%	0%
Didn't want to drive	5%	3%	9%	41%	16%
Save time	4%	5%	9%	16%	11%
Stress / health / exercise	3%	5%	0%	3%	2%
Parking issues	3%	3%	2%	7%	3%
Other options not reliable	3%	3%	2%	0%	0%
Save wear and tear on vehicle	2%	3%	4%	3%	2%
Changed job/work hours	2%	<1%	2%	1%	4%
Moved to different residence	1%	<1%	0%	2%	2%
Family obligations	1%	<1%	2%	1%	2%
None	64%	65%	55%	31%	42%

Use of and Satisfaction with GRH

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

	2016	**2013**	**2010**	**2007**	**2004**
All respondents	33%	31%	33%	23%	25%
By Registration Status					
- Current registrants	36%	33%	35%	30%	25%
- Past registrants	27%	25%	27%	21%	21%
By Mode Used "During-GRH"					
- CP/VP	----	-----	41%	27%	35%
- Carpool	44%	34%	-----	-----	-----
- Vanpool	44%	39%	-----	-----	-----
- Bus	35%	31%	35%	28%	29%
- Commuter rail	32%	31%	29%	17%	20%
- Metrorail	18%	22%	19%	14%	21%

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

	2016	**2013**	**2010**	**2007**	**2004**
Illness (self)	32%	33%	29%	25%	30%
Illness of family member	27%	21%	21%	15%	10%
Illness of child	16%	19%	20%	33%	28%
Unscheduled overtime	12%	15%	14%	14%	15%
Other personal emergency	9%	9%	11%	7%	10%
Missed CP/VP	<1%	1%	2%	1%	3%
Other	4%	2%	3%	6%	4%

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

	2016	**2013**	**2010**	**2007**	**2004**
5 minutes or less	28%	23%	26%	22%	28%
6 – 10 minutes	28%	28%	27%	23%	28%
11 – 20 minutes	29%	33%	32%	36%	24%
21 – 30 minutes	9%	9%	7%	14%	13%
31 – 45 minutes	2%	2%	2%	3%	3%
46 or more minutes	4%	5%	7%	3%	4%
Average (minutes)	15 min	16 min	17 min	16 min	16 min

- **Improvements desired to GRH Program ***

	2016	2013	2010	2007	2004
None needed	14%	12%	22%	25%	28%
More advertising	10%	11%	7%	13%	8%
Relax conditions / supervisor approval	4%	7%	----	1%	3%
Quicker response for ride requests	3%	2%	3%	3%	3%
Notify when time to re-register	3%	4%	1%	1%	----
More direct, faster service home	3%	----	----	----	----
Easier/faster approval	2%	1%	3%	2%	3%
Wider area for trips	1%	<1%	1%	2%	2%
Allow more trips per year	1%	<1%	1%	4%	3%
Better directions/info on how to use	<1%	2%	----	1%	2%
Better communication with drivers	<1%	1%	2%	1%	2%
Don't require registration	<1%	<1%	3%	1%	1%
Extend the hours	<1%	2%	2%	0%	0%
Other	5%	5%	3%	10%	7%
Don't know / no suggestions	55%	58%	49%	47%	41%

  * Multiple responses permitted

Demographics

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

Residence	2016	2013	2010	2007	2004
DC	2%	2%	1%	1%	2%
Maryland	40%	36%	32%	34%	29%
Virginia	55%	60%	65%	64%	67%
Other/Ref	3%	2%	2%	1%	2%

Employment	2016	2013	2010	2007	2004
DC	64%	61%	63%	60%	61%
Maryland	15%	11%	11%	10%	9%
Virginia	21%	28%	26%	30%	30%
Other/Ref	0%	0%	0%	0%	0%

- **Income** – all respondents

	2016	2013	2010	2007	2004
Under $40,000	1%	1%	2%	2%	4%
$40,000 – $59,999	4%	5%	6%	9%	14%
$60,000 – $79,999	7%	10%	12%	17%	19%
$80,000 – $99,999	13%	13%	14%	19%	24%
$100,000 – $119,999	18%	18%	16%	20%	17%
$120,000 – $139,999	15%	16%	15%	10%	8%
$140,000 – $159,999	11%	12%	13%	8%	5%
$160,000 – $179,999	8%	8%	8%	----	----
$180,000 or more	23%	17%	14%	----	----

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

	2016	**2013**	**2010**	**2007**	**2004**
Hispanic/Latino	5%	5%	5%	4%	4%
White	70%	73%	68%	65%	71%
Black/African-American	17%	16%	20%	21%	21%
Asian	6%	6%	7%	10%	4%

- **Gender** – all respondents

	2016	**2013**	**2010**	**2007**	**2004**
Female	47%	48%	47%	57%	57%
Male	53%	52%	53%	43%	43%

- **Age** – all respondents

	2016	**2013**	**2010**	**2007**	**2004**
18 – 24	<1%	<1%	<1%	1%	<1%
25 – 34	7%	9%	9%	17%	17%
35 – 44	18%	20%	23%	32%	35%
45 – 54	35%	39%	41%	31%	33%
55 – 64	34%	27%	25%	18%	14%
65 or older	5%	5%	3%	1%	1%