

**National Capital Region
Transportation Planning Board
COMMUTER CONNECTIONS PROGRAM**

**Baltimore and St. Mary's County Regional
Guaranteed Ride Home (GRH) Program**

**2022 GRH APPLICANT SURVEY
Technical Survey Report**

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EXECUTIVE SUMMARY

Introduction

This report presents the results of a Guaranteed Ride Home (GRH) survey of 96 commuters who currently participate or who previously participated in the Baltimore and St. Mary's County regional Guaranteed Ride Home (GRH) Program marketed through the Maryland Transit Administration and operated through the Commuter Connections program at the Metropolitan Washington Council of Governments. This program was introduced in October 2010 to eliminate commuters' fear of being without transportation in the case of an emergency. The program provides up to six free rides home per year in a taxi, ridehail service, 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:

- 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 through commuters' participation in the GRH Program.

Interviews were conducted by Internet if the applicant had provided a contact email address. Telephone interviews were conducted 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 proportions of current and past registrants were compared to the proportions of current and past registrants in the total population of GRH participants during the evaluation period. The differences between the sample and total population were not statistically significant, thus weighting was not needed to realign participant responses to the population groups.

Following is a summary of results on the following topics:

- Program participation findings
- Current commute patterns and telework
- 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 attracted some new participants in recent years but most respondents had been registered for numerous years. About 6% of current registrants had been registered for one year or less; two-thirds (65%) had been participating for more than three years.
- The 2022 GRH survey interviewed commuters who had active registrations at some point in the three years between March 2019 and March 2022. About 83% of commuters in the database had inactive registrations in March 2022; only 17% were actively registered. This was a substantial difference from 2019, when nearly four in ten (39%) of commuters in the database had active registrations, showing that many participating commuters had allowed their registrations to lapse.

- All survey respondents were asked if they were currently registered for GRH. In 2022, 81% of respondents with current registrations in the database correctly identified their status as current/active. The remaining 19% said they were no longer registered; some of these respondents might have made a commute change that made them no longer eligible for GRH, thus they considered themselves inactive. Three in ten (28%) respondents whose registrants had expired and were listed as past registrants in the database thought they were still registered. It is possible they did not realize they needed to re-register each year, so assumed they were still eligible.
- Past registrants left the program for three types of reasons: coronavirus pandemic, GRH program characteristics, and personal circumstances. The overwhelming reason was a commute change related to the coronavirus pandemic. More than half of all respondents cited working from home full-time (22%), working from home due to the pandemic (8%), or another coronavirus pandemic reason (20%). The most frequently mentioned program reasons were that the respondents forgot to re-register or hadn't gotten around to it (10%), that they didn't know they had to re-register (4%), or that they did not receive a reminder to re-register (4%). These also were common reasons given in past GRH surveys, indicating the importance of reminding registrants to re-register. Only 2% indicated they were dissatisfied with the program, stating that the program was too restrictive.

Current Commute Patterns and Telework

An important section of the survey examined respondents' commuting behavior, particularly to determine changes respondents had made in response to GRH. As in past GRH surveys, the 2022 survey queried respondents about their commuting for three time periods:

- **Current** – Commuting patterns at the time of the survey (April-May 2022).
 - **During-GRH** – Commuting patterns during the time the respondent participated in GRH. For current registrants, this was the same as the current period. For one-time exception users and past registrants, this was a previous point in time, specific to the respondent.
 - **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).
- **Telework at Time of Survey and Pre-pandemic** – At the time of the survey (April-May 2022), 22% of respondents were working from home/teleworking full-time and 21% teleworked three or four days per week. Only 34% were not teleworking at all. The 2022 telework percentage was dramatically higher than in February 2020, immediately before the start of the coronavirus pandemic, which disrupted commute travel for many respondents. While nearly half had teleworked at least occasionally before the pandemic, frequent telework was far less common. About 17% of respondents teleworked three or more days per week and just 6% teleworked full-time. More than half did not telework at all before the pandemic.
 - **Commute Mode in 2022 for Current Registrants** – Bus was the most common primary mode, used by 49% of current registrants. Rideshare (carpool/vanpool) was the second most common primary mode, used by 23% of current registrants. About 17% reported train as their primary mode and 5% primarily biked or walked. No current registrants said they primarily drove alone to work but 6% teleworked most of their workdays. Driving alone and telework are not eligible modes for GRH but commuters may participate in GRH if they use alternative modes at least two days per week, thus, at least some primary teleworkers might still be eligible for GRH.
 - **Commute Mode in 2022 for Past Registrants** – Nearly four in ten (38%) self-identified past registrants primarily teleworked and 34% primarily drove alone at the time of the survey. The

remaining 28% of past registrants said they still used an alternative mode most of the time; these respondents were still eligible for GRH, even though they no longer participated in GRH. Fifteen percent rode a bus, 6% carpooled or vanpooled, 3% rode commuter rail, 2% used subway or light rail, and 2% bicycled or walked as their primary mode.

Impact of GRH on Commute Patterns

The GRH survey was designed to examine two key questions: Did the GRH Program encourage commuters who drive alone to work to use alternative modes, and did it encourage commuters who use alternative modes to use these modes more days per week? The analysis compared respondents' "during-GRH" commute to their commute "pre-GRH" to identify mode use changes they made to participate in or while participating in GRH.

- **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 one-third (34%) of 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 (58%) said they maintained but did not increase use of alternative modes they were using before GRH. These percentages were comparable to the results from surveys in 2013, 2016, and 2019.

- **Shifts from Drive Alone to Alternative Modes** – About 40% of respondents said they primarily drove alone to work before starting GRH. The remaining 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 three 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.
- **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 4% said they were "not at all likely" to have continued using these modes if GRH were not available and 42% said they were somewhat likely. By contrast, 20% of respondents who started using a new alternative mode said they were not likely to have made the change without GRH and 27% were somewhat likely.

Four in ten (43%) respondents said GRH was the only Commuter Connections service they received. Among respondents who did receive other Commuter Connections services, most said GRH was the most important Commuter Connections service. Only 27% of respondents who started an

alternative mode and 27% who maintained alternative mode use reported a Commuter Connections service that was more important than GRH to their commute decision.

Implications of Results for Travel and Air Quality Impact Assessment

One purpose of the survey was to collect data to enable an evaluation of the travel and air quality impacts of the program. Several findings have specific implications for this assessment:

- Two-thirds (65%) of GRH registrants had been participating in GRH, and therefore using alternative modes, for more than three years. This means that congestion mitigation and air quality improvement benefits of GRH extend longer than the three year evaluation period and that it is reasonable to carry over travel and air quality benefits of “retained” users, who started using alternative modes during a previous evaluation period, into the subsequent period.
- Another finding related to impact assessment is that the benefit from participants who increased use of alternatives is likely to be small. Although some benefit was achieved by this increase, only 3% of participants fell into this category, so the overall impact of their changes would be minimal.
- More than one-quarter (28%) of past registrants were still using alternative modes, even though they were no longer registered for GRH. Thus, the region retained the air quality and congestion mitigation benefit of these participants, even after they left the program. Note that three-quarters (38%) of past registrants were teleworking most or all their workdays at the time of the survey. Seven in ten (71%) respondents who were teleworking full-time at the time of the survey said they would be using alternative modes if they were not working from home, suggesting a likely return to alternative mode use if they return to an outside work location.

Program Marketing Findings

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

- Program marketing seems to be a useful source of information for GRH. Four in ten (40%) respondents recalled hearing or seeing GRH advertisements. About half of these respondents said they heard or saw the ads before they registered for GRH and said they were influenced by the advertising to register. These respondents represented 19% of all the GRH respondents interviewed, indicating that GRH advertising informed and encouraged some registrants to join the program.
- The results also showed the need for multiple outreach channels. Word of mouth continued to be the predominant method by which respondents learned of GRH, with 27% of respondents citing this source. But employer/employee survey (19%), other rideshare/transit organization (12%), and Internet/social media/e-mail (10%) each was noted by at least one in ten respondents as their first information source about GRH.

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SECTION 1 INTRODUCTION

This report presents the results of a Guaranteed Ride Home (GRH) survey of 96 commuters who currently participate or who previously participated in the Baltimore and St. Mary's County Regional Guaranteed Ride Home (GRH) Program supported through the Maryland Transit Administration and operated through the Commuter Connections program at the Metropolitan Washington Council of Governments. This program was introduced in October 2010 to eliminate commuters' fear of being without transportation in the case of an emergency. The program provides up to six 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.

The Metropolitan Washington Council of Governments National Capital Regional Transportation Planning Boards' (COG/TPB) Commuter Connections program undertook the survey described in this report to identify and examine commute and demographic characteristics of commuters participating in GRH.

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 – Survey questionnaire
- Appendix B – Respondent alert letters
- Appendix C – Disposition of final dialing results
- Appendix D – Results from 2022, 2019, 2016, and 2013 GRH Surveys – Comparison on Key Questions

SECTION 2 – SURVEY AND SAMPLING METHODOLOGY

Survey Goals

Commuter Connections introduced the Baltimore and St. Mary’s County GRH Program in October 2010. In April/May 2013, Commuter Connections conducted a survey of GRH applicants to assess travel and air quality impacts of the program. The 2022 GRH survey is the fourth such survey; GRH surveys also were conducted in 2013, 2016, and 2019.

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 Baltimore and St. Mary’s County GRH program between March 16, 2019, and March 15, 2022. Commuters who had active and valid registration status at the time of the survey were considered “current or Active registrants.” Some commuters who had participated in the program during the sample period had let their registrations expire; these registrants were defined as “past or Inactive registrants.”

A very 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 2022, the consultants received the GRH database from Commuter Connections for the designated survey period. To prepare the database for the survey, the consultants first removed duplicate records for commuters who re-registered for the program and were given a new status code and a new record. Records with slight differences or spellings in name, but with the same telephone number or address were also designated as duplicate and the older record was removed. At the end of this database cleaning process, the database contained 589 records for the survey.

As in past GRH surveys for the Baltimore and St. Mary’s County program, the GRH survey was conducted by a combination of Internet and telephone interview methods. Applicants who had provided an email address were first contacted through an email and asked to complete the survey online. The consultants attempted telephone contacts with applicants who provided only a telephone number. For this reason, “past/Inactive” and “current/Active” participants were divided into Internet and telephone access groups, resulting in four sample groups.

- 1) Telephone – Current
- 2) Telephone – Past
- 3) Internet – Current
- 4) Internet – Past

Table 1 summarizes the populations for the four sample groups.

Table 1
Database Sample Frame by Contact Method and GRH Program Status

Sample Group	Population	Percentage
Telephone Administration		
Current (Active) Participants	2	0.3%
Past (Inactive) Participants	31	5.3%
Internet Administration		
Current (Active) Participants	91	15.4%
Past (Inactive) Participants	465	79.0%
TOTAL – All Groups	589	100.0%

Questionnaire Design

LDA Consulting, with input from COG/TPB staff, WBA Research, Media Beef, and the Commuter Connections TDM Evaluation Group, designed both the Internet and telephone questionnaires used in the survey. The questionnaires collected data on the following 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
- Use of social networking and travel/trip information applications
- Participant demographics

The questionnaire was designed for both telephone and Internet administration. All questions were included in each form, with minor wording and format changes made to the Internet version for visual administration. A copy of the final Internet questionnaire is presented in Appendix A.

Survey Administration

Internet Interviews

After finalizing the survey sample for the project, the research team sent two lists and two introductory emails to COG for distribution. One list contained the names and contact information for current (Active) GRH participants. COG staff merged the survey sample with the email for these participants and distributed the emails, accompanied by a link to COG's server. The other list contained the names and contact information for past (Inactive) GRH participants. Emails for this group also were distributed electronically, referencing the link to WBA's server. Copies of the emails can be found in Appendix B. Two reminder emails were sent to commuters who had not yet completed the survey. A total of four current participants were interviewed via the Internet site located on the COG server. A total of 50 Internet interviews were completed and submitted to the WBA server.

Telephone Interviews

COG/TPB staff also sent a survey introduction letter, by postal mail, to the 33 past and current participants who had not provided an email address (“telephone only”). The letter, shown in Appendix B, alerted the recipients that they would receive a telephone call from WBA Research to participate in the survey. Commuter Connections received invalid/undeliverable postal returns for five addresses out of the 33 letters mailed. Most of these participants had a valid telephone number, however, so were able to be contacted. Participants who had been contacted by email for the Internet survey also were included in the telephone survey sample frame if they had not completed the survey by Internet from the initial email or reminder emails.

Telephone interviews were conducted from WBA’s telephone survey facility, using the CATI (computer-assisted telephone interviewing) system. Prior to beginning the full telephone survey effort, interviewer-training sessions were held, covering the following topics:

- An explanation of the purpose of the study and the group to be sampled
- 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 26 and May 18, 2022, on weekdays from 12:15 pm to 8:45 pm EDT. Calls were first directed to the respondent’s work number. If contact at work was unsuccessful, the respondent was called at home. Interviews were conducted while respondents were at work or at home, depending on their preferences.

All interviewing was supervised by survey supervisors who were responsible for overseeing the CATI server, 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 44 completed interviews. Of the completed interviews, two were from the telephone only sample group and 42 were telephone follow-up calls to participants who received the email invitation and did not complete the survey via the Internet. The telephone survey had a refusal rate of 3.2%.¹ An average of 36.1 call attempts was made for each completed interview. A disposition of telephone dialing results can be found in Appendix C.

Combination of Data and Removal of Non-Working Respondents

At the end of the survey period, Commuter Connections sent the data for Internet interviews that had been completed by current registrants on the COG server to LDA/WBA for validity checks, formatting, and merging with the data collected by WBA from past participant Internet interviews and telephone interviews. The combined Internet-telephone survey efforts resulted in 98 completed interviews. However, after performing the initial post-processing, interviews of two respondents who were not currently working were removed from the survey datafile. These respondents were not valid respondents for GRH analysis, but because the survey offered a gift card drawing, these respondents were skipped to the end of the survey and permitted to enter their name in the drawing. For gift card purposes, they were considered completed interviews, but for consistency with past surveys, they were removed prior to the analysis. With these removed, the valid interviews totaled 96.

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 C.

Weighting of Survey Data

After all interviews were completed, the respondent data were weighted to align the survey results with the total database population of GRH participants. In past GRH surveys, the criterion used to weight the survey data was “type” of GRH participant, denoting whether the participant was a current or past participant. The total population counts for weighting current and past participants were equal to the counts in the original sample, minus the number of participants who could not be contacted because their email, postal mail, and telephone contacts all were invalid or missing. A total of 10 invalid sample points were removed from the 2022 sample file, for a revised population of 579, with 93 current and 486 past.

Table 2 shows the relationship between the respondent population and the database populations for the weighting variable. The differences between these groups were not statistically significant, thus weighting was not needed to realign participant responses to the population groups. An expansion factor equal to the total sample of 579 divided by the total interview count of 96 was created to facilitate some elements of the analysis but it is not needed for analysis of percentages responses; the unweighted and weighted/expanded percentages would be identical.

Table 2
Distributions for Respondent Population and Total Database Population

Type of GRH Participant	Respondent Population		Database Population	
	n = __	Percentage	n = __	Percentage
Current Participants:	16	16.7%	93	16.1%
Past Participants:	80	83.3%	486	83.9%
Total All Participants	96	100.0%	579	100.0%

Level of Confidence for Analysis

The level of confidence for the study was calculated using the finite population correction factor, an approach used when the sample size is large relative to the total population. Completion of 96 interviews from a population of 579 (excluding records with no valid contact option) resulted in a level of confidence of 95% \pm 9.1 percentage points for the 2022 GRH survey.

This was greater than the 95% \pm 5.6 percentage points for the 2022 survey, due to the smaller sample of interviews collected in 2022 (96) when compared with 2019 (241). However, it is useful to note that the total 2022 database population of 579 was just 50% of the 2019 database population of 1,154 that served as the sample frame for the 2019 GRH survey.

Additionally, the distribution between current and past registrations was substantially different in 2022 than in 2019. In 2022, the GRH database was comprised of 16.7% current and 83.3% past registrants. This represented a large drop in the current registrations from 2019, when current registrations accounted for 38.6% of the total. This change did not affect the sampling methodology for the 2022 survey but the shift in current and past registrations reflects a notable change in the use of the program since 2019. Additionally, the total of only 96 completed interviews limited the extent of sub-group analysis that was reasonable for the 2022 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 as a share of 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 past Baltimore region GRH surveys, when these data were available at a sufficient sample size to make the comparison statistically valid and meaningful. These comparisons are presented in the appropriate sub-sections. Appendix D also presents comparisons of 2022 results with those of previous GRH surveys.

- Characteristics and demographics of the sample
- Registration Information
- GRH information sources
- Current commute patterns for GRH participants
- Commute patterns before and during participation in GRH
- Influence of GRH on commute pattern decisions
- Use of and satisfaction with GRH trips and the GRH Program
- Social networking and travel/trip information applications

Characteristics and Demographics of the Sample

Home and Work Locations

Most (87%) respondents lived in Maryland. About 6% lived in Virginia, and 1% lived in the District of Columbia (Table 3). Three percent of respondents lived north of Baltimore in Delaware (2%) or Pennsylvania (1%). About nine in ten (91%) respondents worked in Maryland. Most of the remaining respondents worked in the District of Columbia (8%).

Table 3
Home and Work States

(2016 n = 329, 2019 n = 241, 2022 n = 96)

State	Home State			Work State		
	2016	2019	2022	2016	2019	2022
Delaware	1%	0%	2%	0%	0%	0%
District of Columbia	1%	2%	1%	1%	3%	8%
Maryland	71%	85%	87%	98%	96%	91%
New Jersey	6%	1%	0%	0%	0%	0%
Pennsylvania	6%	7%	1%	0%	0%	0%
Virginia	15%	4%	6%	1%	<1%	1%
Other	0%	1%	3%	0%	0%	0%

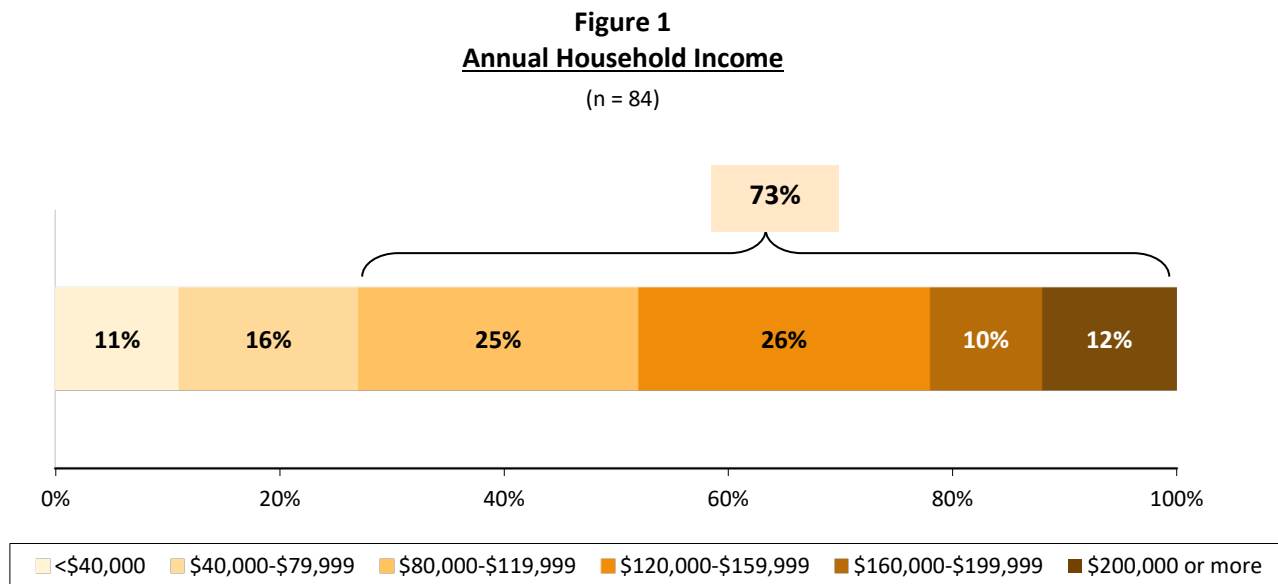
Top home locations for GRH registrants, each with at least 3% of total respondents, included:

<u>Home County</u>	<u>Percentage</u>
• Harford County, MD	21%
• Baltimore City, MD	19%
• Baltimore County, MD	18%
• Howard County, MD	9%
• Anne Arundel County, MD	5%
• Frederick County, MD	5%
• Charles County, MD	3%
• Prince George's County, MD	4%
• Fairfax County, VA	3%
• Carroll County, MD	3%

Demographics

The survey asked respondents four demographic questions: gender, income, age, and race/ethnicity. Female respondents represented 62% of total respondents and 38% were male. Details of other characteristics are presented below.

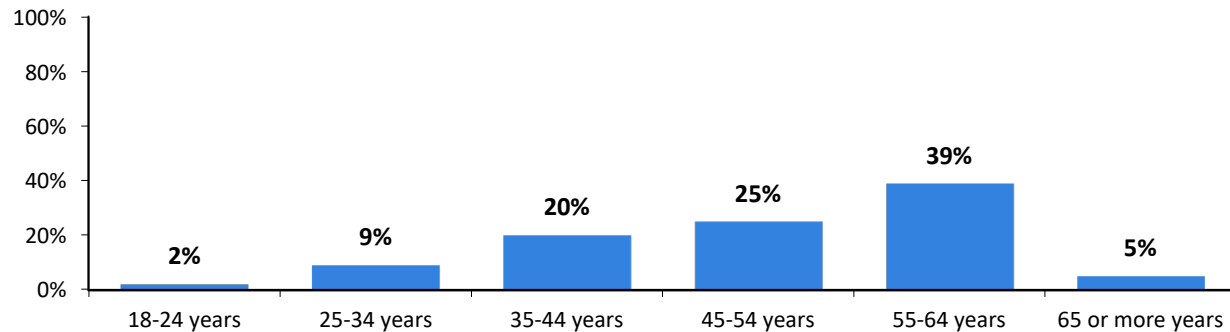
Income – Figure 1 presents the distribution of respondents' annual household income. More than seven in ten (73%) respondents had household incomes of \$80,000 or more and 22% had incomes of \$160,000 or more.



Age – GRH participants were clustered in the middle and older age brackets (Figure 2). Nearly half (45%) were between the ages of 35 and 54 years old, and 44% were 55 years or older. Only one in ten (11%) was under 35 years.

Figure 2
Respondent Age Distribution

(n = 95)



Race/Ethnicity – Lastly, as shown in Table 4, Non-Hispanic Whites and Non-Hispanic Blacks represented the two largest ethnic group categories of GRH survey respondents, 52% and 38% respectively. Hispanics accounted for about 4% and Asians represented 6% of respondents.

Table 4
Race/Ethnicity

(n = 90)

Race/Ethnicity	Percentage
Non-Hispanic White	52%
Non-Hispanic Black	38%
Asian	6%
Hispanic	4%
Other/Mixed	0%

Registration Information

Registration Status

As noted earlier, the GRH database population was divided into categories by their registration status. To facilitate respondents' understanding of survey questions, all respondents were asked if they were currently registered for the GRH or if their registration had ended. Slightly more than one-third (37%) of respondents said they were currently registered for GRH (Table 5). Sixty-three percent 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 = 96)

Registration Status (Self-defined)	Percentage
Current registrants	37%
Past registrants	63%

A major objective of the survey was to compare commute mode from before participants registered for GRH to the time they were in the program, thus, the survey asked numerous questions relating to “before” and “while” participating in GRH. Respondents’ registration status could be defined by their actual database status or by their perception of their status, which could be different than the actual status. The respondent-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 self-defined their registration status differently than was shown in the GRH database.

In 2022, 81% of respondents whose database status was current/active correctly identified their status as current (Table 6). The remaining 19% 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 earlier. Some of these respondents might have made a commute change since their last registration date that would make them ineligible for GRH, such as starting to telework full-time or reducing their use of alternative modes to less than twice per week. Because these respondents perceived themselves as no longer registered, they were treated in the survey interview as “past registrants.”

Table 6
Registration Status Defined by Respondent Compared with Database Status – 2022 and 2019

Registration Status Defined in GRH Database	Registration Status Self-defined by Respondent	
	Current	Past
2022 GRH Survey		
Current registrants (n = 16)	81%	19%
Past registrants (n = 80)	28%	72%
2019 GRH Survey		
Current registrants (n = 111)	85%	15%
Past registrants (n = 130)	53%	47%

Conversely, three in ten (28%) respondents whose registrations had expired thought they were still registered. It is possible these respondents did not realize they needed to re-register each year, so they assumed they were still eligible for the program. These respondents were treated as “currently registered” in the survey and throughout the report.

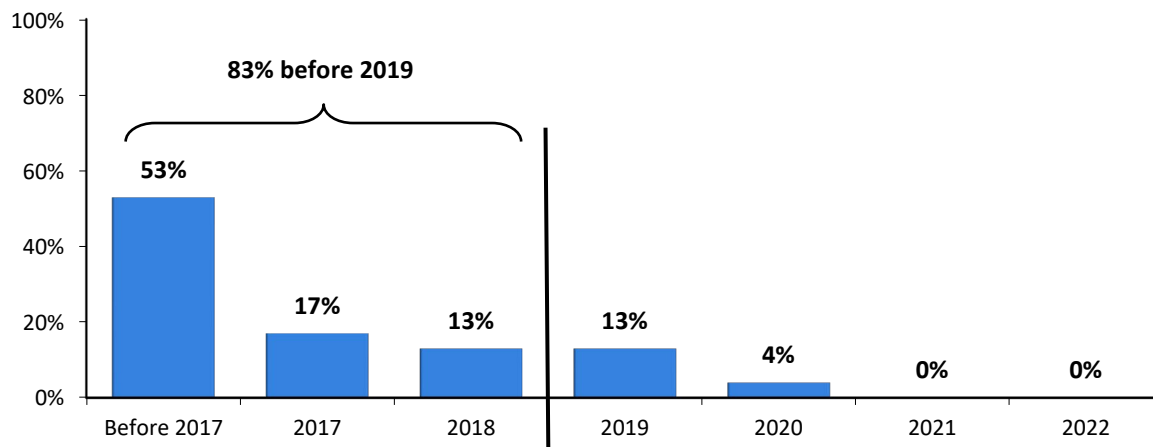
While the 2022 results suggest some eligibility confusion on the part of registrants, they represent an improvement in respondents' understanding of their actual GRH status compared with the 2019 results. As shown by the bottom section of the table, in 2019, more than half (53%) of respondents whose registration had expired thought they were still registered.

Year of Registration

Respondents in the survey were selected from those who had registered or re-registered for GRH between March 2019 and March 2022, but more than eight in ten (83%) surveyed respondents said they first registered before 2019 (Figure 3). Thirteen percent registered in 2019, and 4% registered in 2020. None of the respondents reported registering in 2021 or 2022, but the survey was conducted in April and May 2022, thus registration figures for 2022 would have included only registrants who joined GRH between January 1 and March 15.

Figure 3
Year First Registered for GRH Program

(n = 85; excludes 11 respondents who could not recall year)



The large drop-off in registrations in 2020 and 2021 is certainly related to the coronavirus pandemic, when many employers paused onsite operations and shifted workers to work from home/telework. Numerous surveys and media reports have shown that as many as 50% or more of workers in metropolitan regions were working from home in 2020 and many workers have continued to telework most of their workdays. To be eligible for the GRH program, commuters must be commuting to an outside work location and using an alternative mode at least two days per week; GRH registrants who shift to full-time telework would not be able to register for the program.

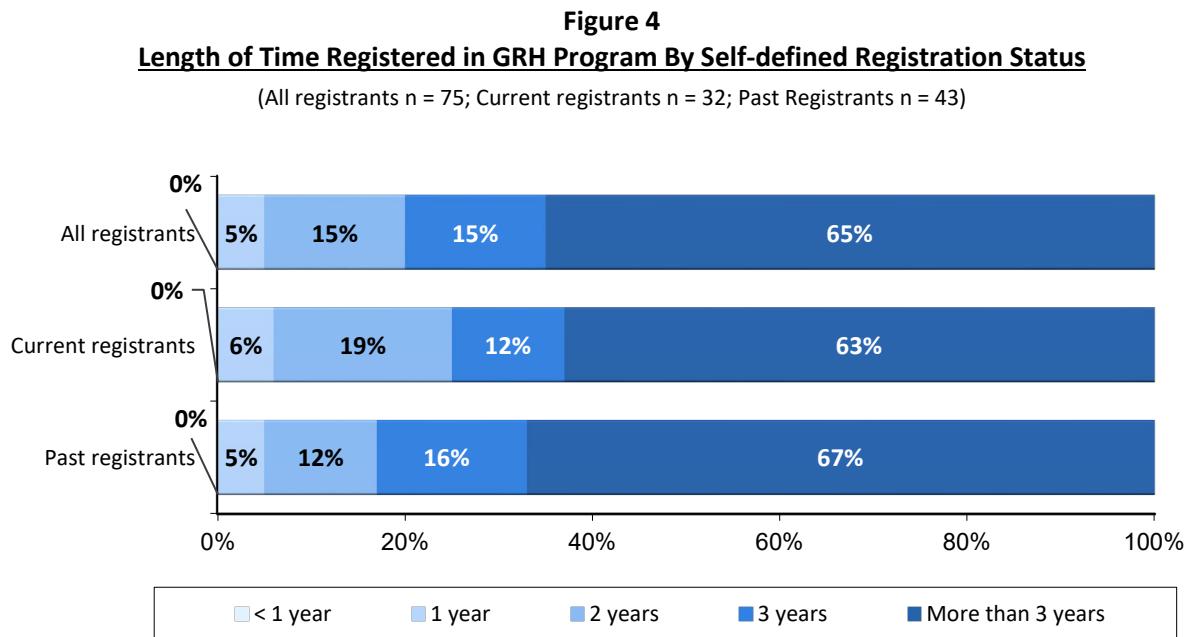
Note that 12% of total respondents surveyed could not remember when they registered. They are not included in the base for the distribution shown in Figure 3, however, it is likely many of these respondents would have registered at least several years ago.

Participation in Other GRH Programs

Four percent of respondents (4 respondents) participated in another GRH program prior to joining Commuter Connections' program. Three respondents mentioned programs sponsored by a state or local government; one respondent did not recall who sponsored the program.

Time Participating in GRH

Eight in ten (80%) respondents participated (or had been participating) for three or more years and 65% had been participating for more than three years (Figure 4).



The GRH duration for respondents who self-identified as current was statistically the same as for past registrant. Sixty-three percent of current/active registrants had been participating in GRH for more than three years, compared with 67% of past registrants. Current registrants had participated for an average of 45 months and past registrants participated for an average of 47 months.

Reasons for Not Re-registering

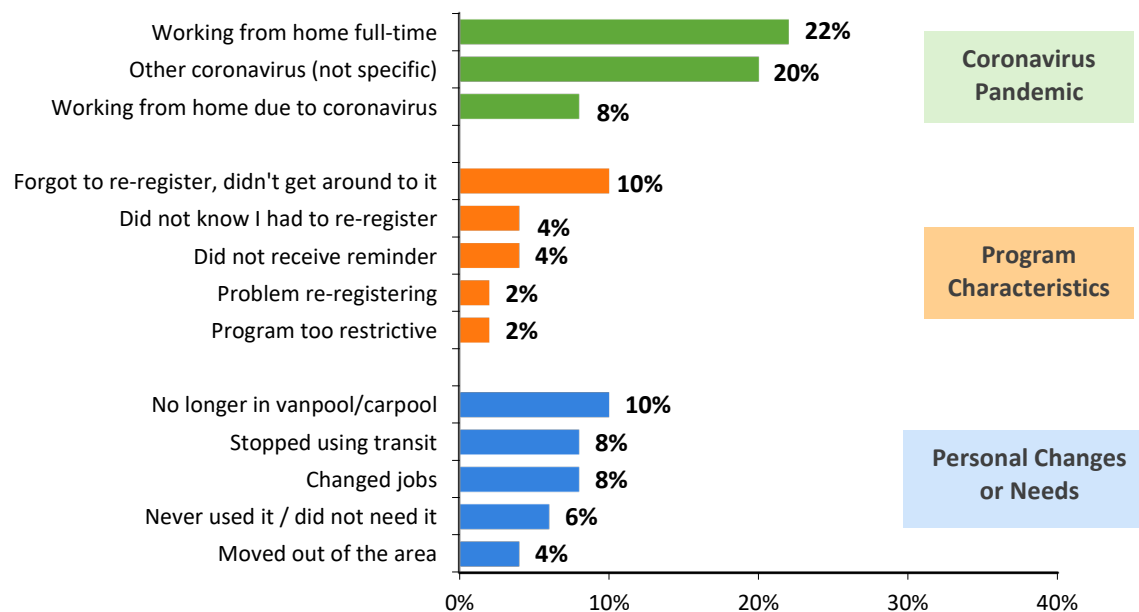
Past registrants were asked why they did not re-register for GRH when their registration expired. Figure 5 presents common reasons, divided into three categories: reasons associated with the coronavirus pandemic, characteristics of the GRH program, and personal circumstances of the registrant.

Coronavirus Pandemic – The primary reasons for not re-registering were commute change related to the coronavirus pandemic. Half of all respondents cited one of these reasons; 22% said they were working from home full-time, 8% said they were working at home due to the coronavirus pandemic, and 20% simply gave coronavirus pandemic as the reason, without giving additional details. It seems likely that most respondents in the first group were working from home due to the pandemic and that respondents in the second group were either working from home or had a commute change related to the pandemic that made their continued participation in the GRH program impossible or unnecessary.

Program Characteristics – Two common program reasons for not re-registering were that respondents forgot or had not gotten around to it, mentioned by 10%, and did not know they had to re-register, cited by 4% of respondents. These were also common reasons mentioned in past GRH surveys, suggesting that registrants need to be reminded to re-register. Four percent said they did not receive a reminder, 2% said they had a problem with re-registering, and 2% said they were dissatisfied with the program, saying the program was too restrictive.

Figure 5
Reasons Past Registrants Did Not Re-Register

(n = 51; note scale extends only to 40% to highlight results)



Personal Changes – Respondents also mentioned personal reasons that were unrelated to the program. One in ten (10%) said they were no longer ridesharing and 8% said they had stopped riding transit for their commute; these respondents would no longer have been eligible for the program. Eight percent did not re-register because they changed jobs and 4% had moved out of the area. Six percent did not re-register because they had never used the program and presumably felt it would not be necessary in the future.

GRH Information Sources

How Heard About GRH

Commuters heard about the GRH Program from various sources (Table 7). More than one-quarter (27%) mentioned word of mouth/referrals as their source, 19% learned about GRH from their employer, 12% mentioned a local or regional transit agency or commuter service organization, and 10% noted Internet/social media/email as the source. Smaller shares mentioned other sources, such as a sign in a bus/train station (4%), radio (2%), a brochure or other promotional material (2%), or an advertisement (2%).

In 2022, 7% of respondents did not remember how they learned of GRH and 12% of respondents left the question blank. As previously noted, more than half of respondents first registered for GRH before 2017, so given the years that had passed, it is not surprising that some respondents could not recall the source. GRH information sources have remained generally stable since 2013, but the data show a changing trend for one sources; “other rideshare/transit organization” increased as a source between 2019 and 2022.

Table 7
How Respondents Learned About GRH

Information Source	2013 GRH (n = 120)	2016 GRH (n = 329)	2019 GRH (n = 241)	2022 GRH (n = 96)
Word of mouth – referral	27%	36%	36%	27%
Employer/employee survey	23%	21%	23%	19%
Other rideshare/transit organization	8%	7%	2%	12%
Internet/social media/e-mail	11%	7%	15%	10%
Bus/train sign	11%	5%	9%	4%
Brochure/promotional materials	3%	2%	3%	2%
Radio	2%	3%	3%	2%
Advertisement	2%	0%	2%	2%
Don't know	11%	10%	9%	7%

*Multiple responses permitted.

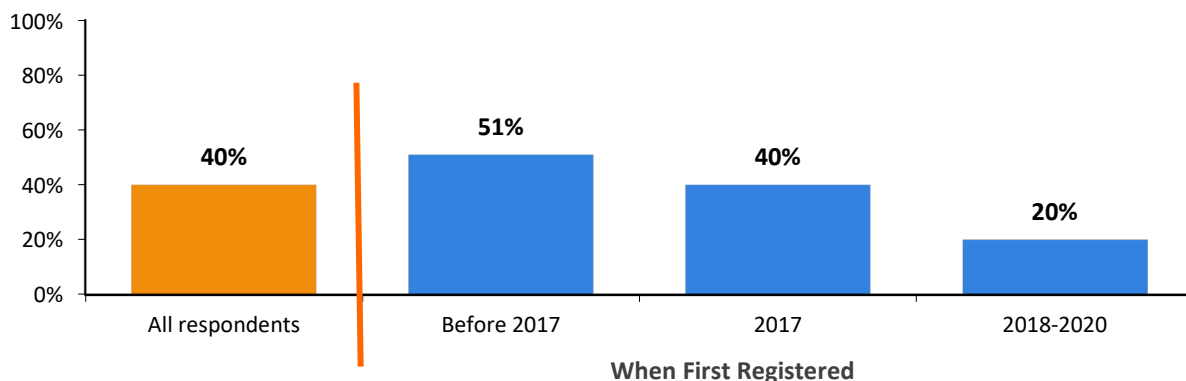
GRH Advertising

Heard or Saw GRH Advertising – When asked if they had heard, seen, or read any advertising about GRH, 40% of respondents said they recalled GRH advertising. This was about the same percentage as recalled advertising in the 2019 survey (45%). The continuity is interesting, given that Commuter Connections paused much of its commute advertising, including ads for GRH, during 2020.

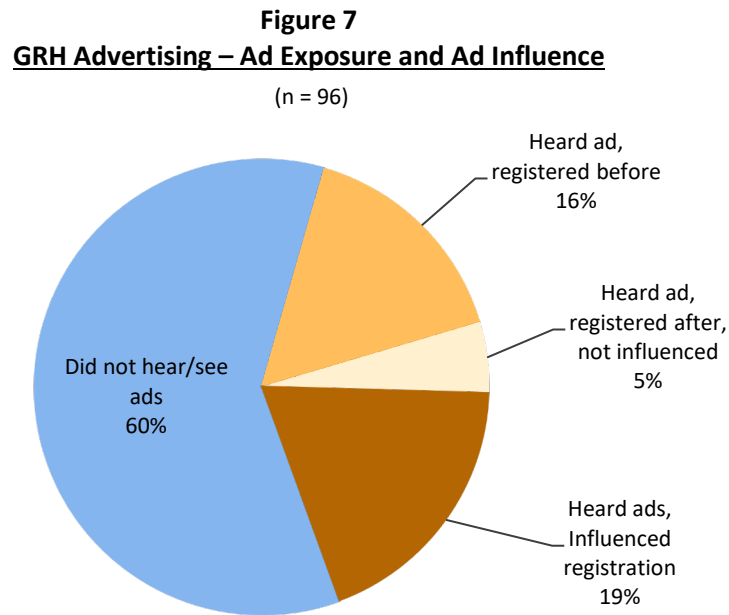
Recall of GRH advertising was highest among respondents who registered before 2017 (Figure 6). Half (51%) of these respondents said they had heard or seen advertising, while recall percentages appeared to decline among more recent registrants. But the sample sizes for all three groups are small and the results should be viewed cautiously. Note also that Commuter Connections paused much of its commute advertising in 2020 and 2021, including ads for GRH.

Figure 6
Heard or Saw GRH Advertising – All Respondents and by Year Registered for GRH

(All n = 85, Before 2017 n = 45, 2017 n = 15, 2018-2020 n = 25)



Influence of Ads on GRH Registration – The 40% 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 7 shows these results, combined with the results for those who had not seen the ads. This chart thus summarizes ad exposure and ad influence.



Six in ten respondents had not seen or heard the ads at all. Sixteen percent saw or heard ads but had already registered for GRH. And 5% said they saw or heard the ads before they registered, but that the ads had not influenced them. These groups, in total, represented registrants who were not influenced by the advertising (81%).

The remaining 19% of respondents said they saw or heard the ads before they registered and that the advertising had encouraged them to register. This indicates that advertising was useful in both informing and persuading some registrants to join the program.

Current Commute Patterns

An important section of the survey examined respondents' commuting behavior, particularly to determine changes respondents had made in response to GRH. 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 was the same as the current 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(s) used
- Carpool occupancy, if applicable
- Length of time using current alternative modes
- Commute distance

Work Schedule

Nearly all (98%) respondents worked full-time. But 15% worked a compressed schedule in which they worked a full-time schedule in fewer than five days; 10% worked a 9/80 compressed schedule, with one weekday off in alternate weeks, 4% worked a 4/40 schedule, with one weekday off each week, and 1% worked another compressed schedule. These respondents were classified as working a five-day week for purposes of commute mode, with either one-half, one, or two weekdays off each week.

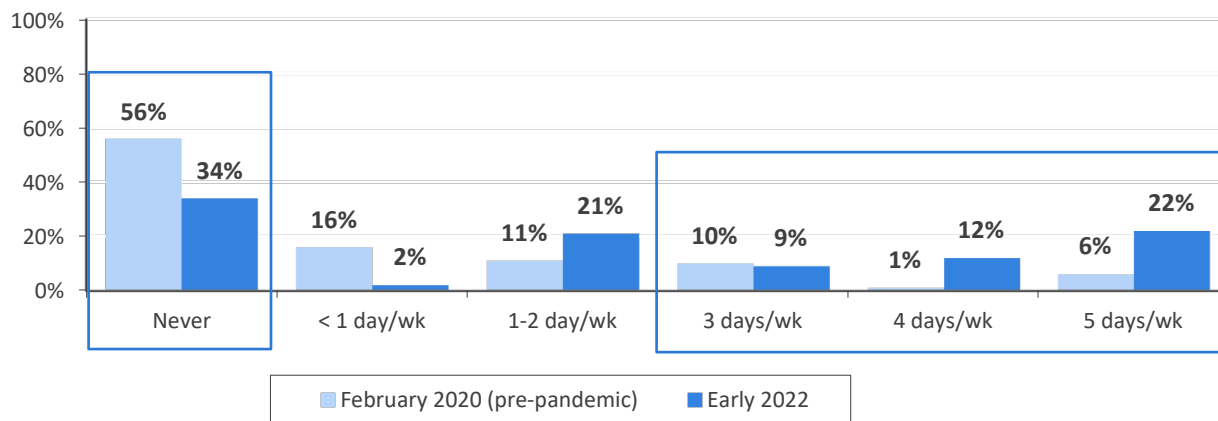
Current and Pre-pandemic Telework

Because it was anticipated that many respondents would be working remotely, in response to the coronavirus pandemic, the survey first asked how often respondents teleworked at the time of the survey and how often they teleworked in February 2020, before the pandemic began. As illustrated in Figure 8, four in ten (43%) of respondents were teleworking three or more days per week at the time of the survey and 22% were teleworking full-time. One-third (34%) were not teleworking at all.

Figure 8 also shows the telework distribution in February 2020, before the pandemic began. While many respondents had teleworked some days before the pandemic, frequent telework was far less common. About 17% of respondents teleworked three or more days per week and just 6% teleworked full-time. More than half (56%) of respondents did not telework at all before the pandemic.

Figure 8
Telework Frequency – February 2020 (Pre-pandemic) and Early 2022

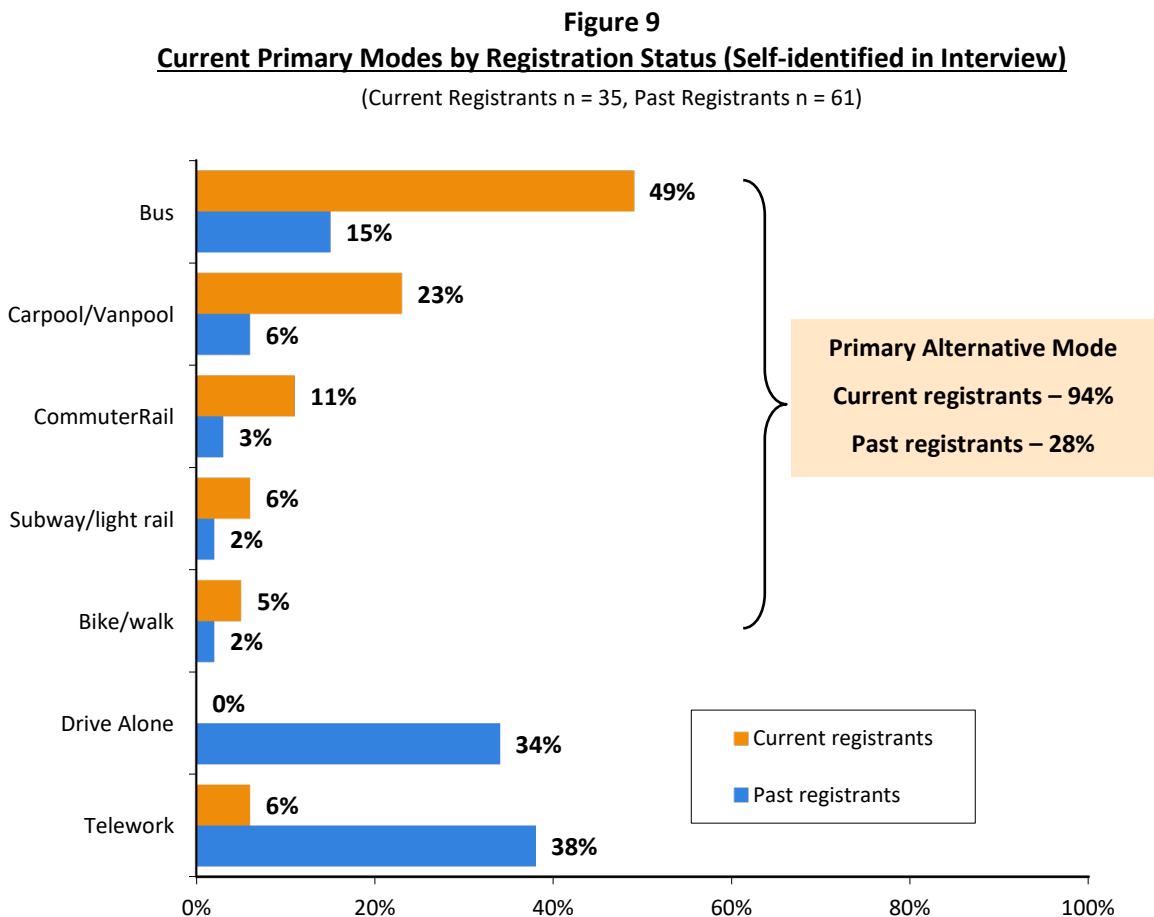
(February 2020 (Pre-pandemic) n = 96, Early 2022 n = 96)



Respondents who teleworked at least some workdays before the pandemic reported higher telework use in early 2022; among respondents who teleworked in February 2020, 62% were teleworking at least 3 days per week at the time of the survey. But respondents who did not telework at all in February 2020 also reported increased telework use; 54% were teleworking at least one day per week and 28% were teleworking three or more days per week.

Current Commute Mode

All respondents were asked about use of various commute modes for a typical work week, 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). The figure includes six traditional “on the road” mode groups for travel to job locations outside the home: drive alone, bus, carpool/vanpool, commuter rail, subway/light rail, and bike/walk. The figure also includes the mode share for telework. This is not actually a travel mode but is included to show the percentage of workers who primarily teleworked, eliminating most or all their weekly commute trips. Additionally, because it was expected that past registrants would have different modes from respondents who thought they were currently eligible for GRH, these two groups are shown separately.



Current Registrants – Bus was the most common primary mode for current registrants, used by 49%. Rideshare (carpool/vanpool) was the second most common primary mode, used by 23% of current registrants. Commuter rail and subway/light rail were used by 11% and 6% of respondents, respectively and 5% primarily biked or walked.

No current registrants said they primarily drove alone to work but 6% teleworked most of their workdays. Driving alone and telework are not eligible modes for GRH but commuters may participate in GRH if they use alternative modes at least two days per week, thus, at least some primary teleworkers

might still be eligible for GRH. Another possible explanation is that the survey asked respondents if they were currently registered in the program. Some respondents who were teleworking might have known they were no longer eligible for GRH but said they were registered because they knew their registration period had not yet ended.

Past Registrants – Past registrants were more likely than current registrants to report both telework and driving alone as their primary mode. Nearly four in ten (38%) self-identified past registrants primarily teleworked and 34% primarily drove alone. The remaining 28% of past registrants said they still used an alternative mode most of the time; these respondents were still eligible for GRH, even though they no longer participated. Fifteen percent rode a bus, 6% carpooled or vanpooled, 3% rode commuter rail, 2% used subway or light rail, and 2% bicycled or walked as their primary mode.

Alternative Modes Used if Respondents Were Not Driving Alone or Teleworking Full-time – As shown above, some registrants were driving alone full-time at the time of the survey. The researchers also expected some registrants would be teleworking full-time in 2022. To examine the incidence of occasional alternative mode use, the 2022 survey asked respondents who drove alone if they occasionally used any alternative mode that was eligible for the GRH program. Full-time teleworkers were asked if they would be using any alternative modes to get to work if they were not teleworking.

Nine in ten (90%) of the 21 respondents who were driving alone full-time said they did not use any of the four alternative modes for their commute, even occasionally (Table 8). Two respondents (10%) occasionally used transit. The 21 respondents who were teleworking full-time presented a very different potential use profile, with 71% saying they would be using alternative modes if they were commuting to an outside work location. Eight respondents (38%) said they would be riding transit, five respondents (24%) said they would be vanpooling and two respondents (10%) would be carpooling.

Table 8
Modes Used Occasionally by Drive Alone Respondents and Modes that Would be Used if Respondents Were not Teleworking Full-time

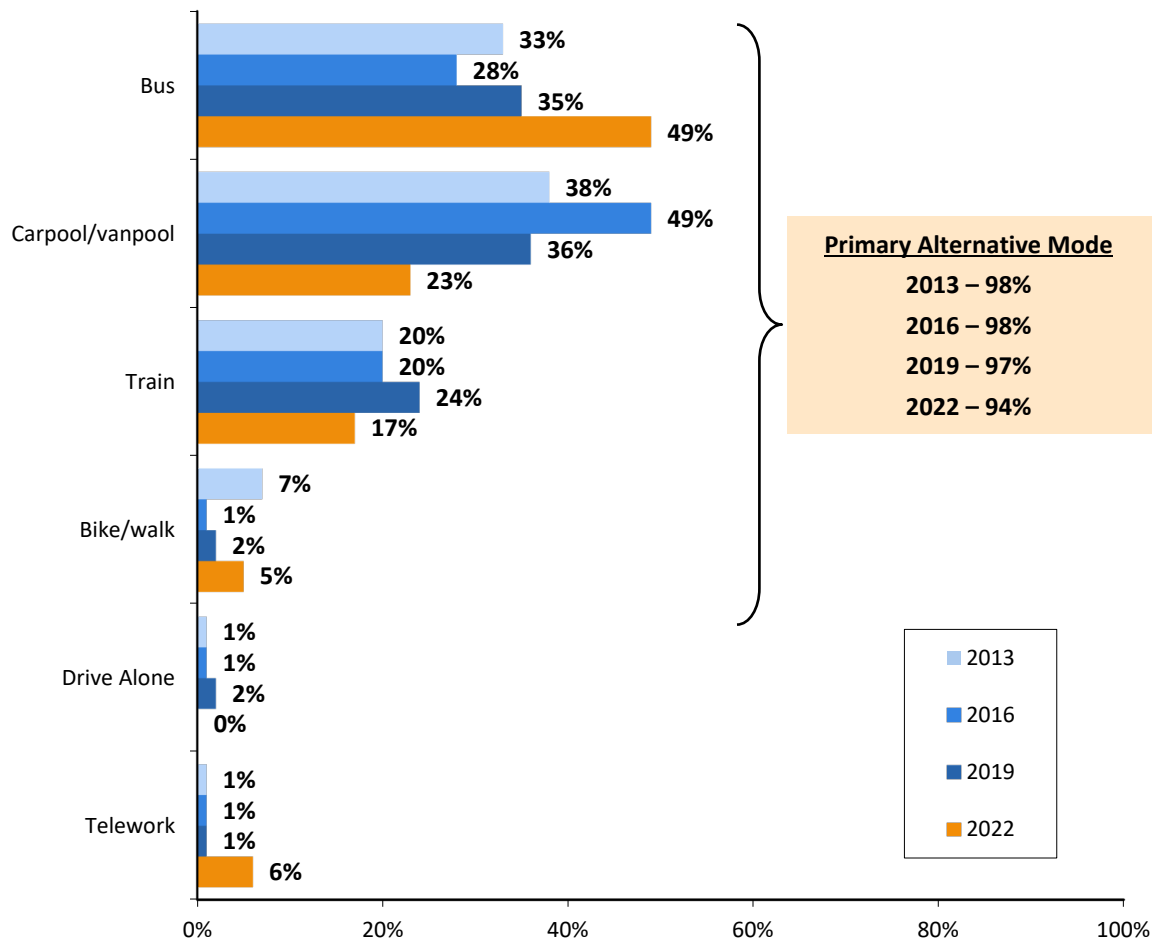
(Shading indicates statistically higher percentages; Multiple responses permitted for alternative modes)

Full-time Current Mode	Do not/would not use any alternative mode	Alternative Modes Occasionally Used/Likely to be Used			
		Carpool	Vanpool	Transit	Bike/walk
Drive alone (n = 21)	90%	0%	0%	10%	0%
Telework (n = 21)	29%	10%	24%	38%	5%

Current Registrants, 2013 to 2022 – Figure 10 presents mode split for current GRH registrants for the years 2013 through 2022. While the overall share of alternative mode use in 2022 was nearly as high as for previous years, the distribution of current registrants' commute modes changed in 2022. The share of current registrants who used bus as their primary mode increased between 2016 and 2022, while use of carpool/vanpool exhibited the reverse pattern, dropping between 2016 and 2022. Note that the sample size for current registrants in the 2022 survey is small (35 respondents). The changes in bus and carpool/vanpool between 2016 and 2022 are statistically significant but the changes between 2019 and 2022 are not. Use of train (subway/light rail and commuter rail), bike/walk, and drive alone showed no statistical changes from 2016 to 2022 or 2019 to 2022.

Figure 10
Primary Commute Modes Used by Current GRH Registrants – 2013 to 2022

(2013 n = 534, 2016 n = 329, 2019 n = 163, 2022 n = 35)

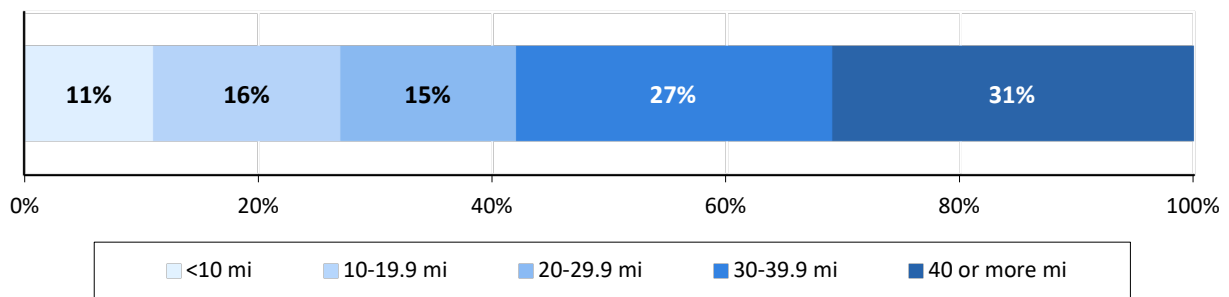


Commute Length

Commute Miles – Respondents who were not teleworking full-time were asked about the one-way distance from home to work. Commuters in the survey sample had a wide range of commute distances, from less than one mile to more than 120 miles. The average one-way distance for GRH respondents was 32.1 miles, about the same distance as measured in 2019 (32.5 miles). Nearly six in ten (58%) respondents traveled 30 or more miles to work and 31% commuted 40 or more miles to work (Figure 11).

Figure 11
Commuter Distance (miles) – GRH Registrants

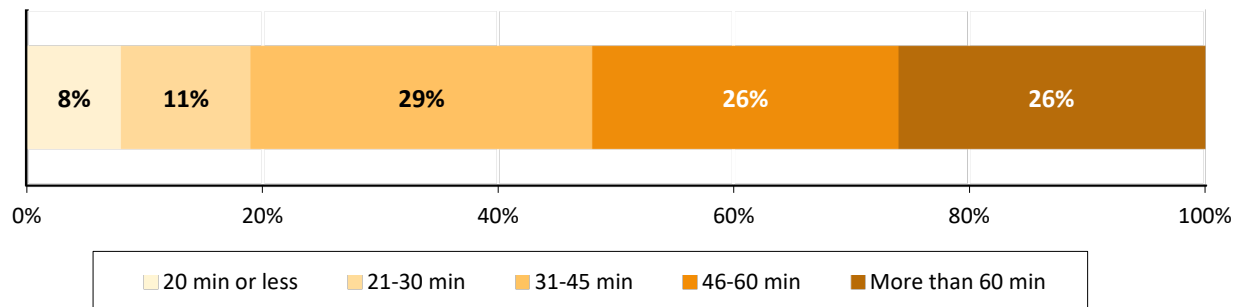
(n = 71)



Commuter Time – GRH participants commuted, on average, about 55 minutes one way, statistically the same as in 2019 (54 minutes). More than half (52%) of respondents commuted more than 45 minutes each way to work (Figure 12). One-quarter (26%) commuted more than one hour.

Figure 12
Commuter Travel Time (minutes) – GRH Registrants

(n = 230)



Primary Roads Used on the Trip to Work

The GRH survey also included a question to identify the Interstate and major U.S. and state roadways that commuters used to get to work. The results from this question will primarily be used for regional planning purposes to explore the role that programs such as GRH play in mitigating congestion on specific roads in the Baltimore metropolitan region. Analysis of GRH data for this question will be described in appropriate regional reports as the data are used.

Commuter 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, particularly on two questions:

- Did GRH encourage commuters who were driving alone to shift to alternative modes?
- Did GRH encourage commuters who were using alternative modes to use them more days per week?

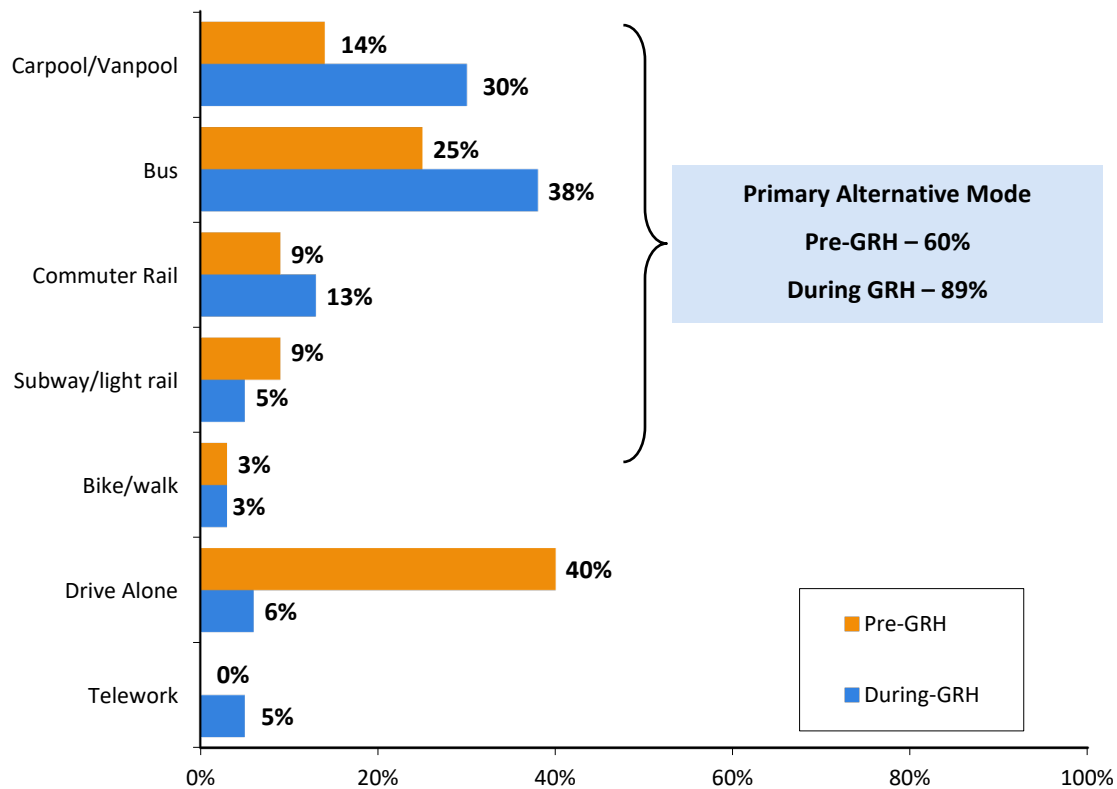
“During-GRH” Modes Compared with “Pre-GRH” Modes

Respondents were asked about their commute modes during the time they participated in the GRH program and 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.” All respondents also were asked about their “pre-GRH” modes. Current and past registrants were asked about the “time before you registered.” Because one-time exception users did not register, they were asked about the “time before you heard about the GRH Program.”

Figure 13 compares 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: carpool/vanpool, bus, commuter rail, subway/light rail, bike/walk, drive alone, and telework. For most respondents, this would be the mode they used three or more days per week. The percentages shown are percentages of respondents who used the mode as their primary mode during the period shown. Note that about 4% of respondents said they were not living or working in the Baltimore-Washington area before they joined GRH. These respondents did not have a “pre-GRH” primary mode and are not included in the base for the pre-GRH mode distribution.

Figure 13
Primary Modes Used Pre-GRH and During-GRH

(During-GRH n = 96, Pre-GRH n = 92)



More than four in ten (40%) respondents primarily drove alone pre-GRH. The drive alone mode share dropped to just 6% for the “during-GRH” period and the shares of respondents primarily using alternative modes increased from 60% to 89%. Carpool/vanpool use increased from 14% pre-GRH to 30% during-GRH and the share of respondents using bus grew from 25% to 38%. Use of the two train modes and bike/walk were statistically the same from the pre-GRH period to the during-GRH period.

No respondents said they primarily teleworked pre-GRH but 5% said they teleworked most of their workdays while they were registered for GRH. Further analysis found that when asked how many days they were teleworking in early 2020, just before the start of the pandemic, most of these respondents said they teleworked less than three days per week, which would not be primary telework. This suggests some past respondents might have mistakenly reported telework as their “mode while participating in GRH” because they were still registered for GRH when they shifted to primary telework at the start of the pandemic, even though they were no longer eligible to use GRH.

Table 9 illustrates the mode changes respondents made from their primary “pre-GRH” mode to their primary “during-GRH” mode. Drive alone users made the greatest mode changes. Four in ten (38%) drive alone respondents shifted to carpool/vanpool and 40% shifted to a transit mode. About 13% of drive alone commuters said they continued to drive alone as their primary mode and 8% said they primarily teleworked; presumably they used an alternative mode two days per week.

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

(Pre-GRH and During-GRH mode shares will not total to 100%, because bike/walk is excluded, multiple responses permitted)

Pre-GRH Mode	During-GRH Mode				
	Drive alone	Telework	Carpool/ Vanpool	Bus	Train
Drive alone (n = 37)	13%	8%	38%	32%	8%
Alternative Modes					
- Carpool/vanpool (n = 13)	0%	0%	100%	0%	0%
- Bus (n = 23)	0%	4%	4%	92%	2%
- Train (n = 16)	0%	6%	6%	12%	75%

Respondents who used alternative modes before they joined GRH largely remained in their pre-GRH modes after they joined GRH. The 13 respondents who previously carpooled or vanpooled all continued ridesharing and 92% who rode a bus and 75% who rode a train to work stayed in these modes. A few respondents who rode transit pre-GRH shifted to primary telework after registering for GRH. The sample sizes for all individual modes are small. However, even with limited samples, the differences in mode retention/mode change are striking.

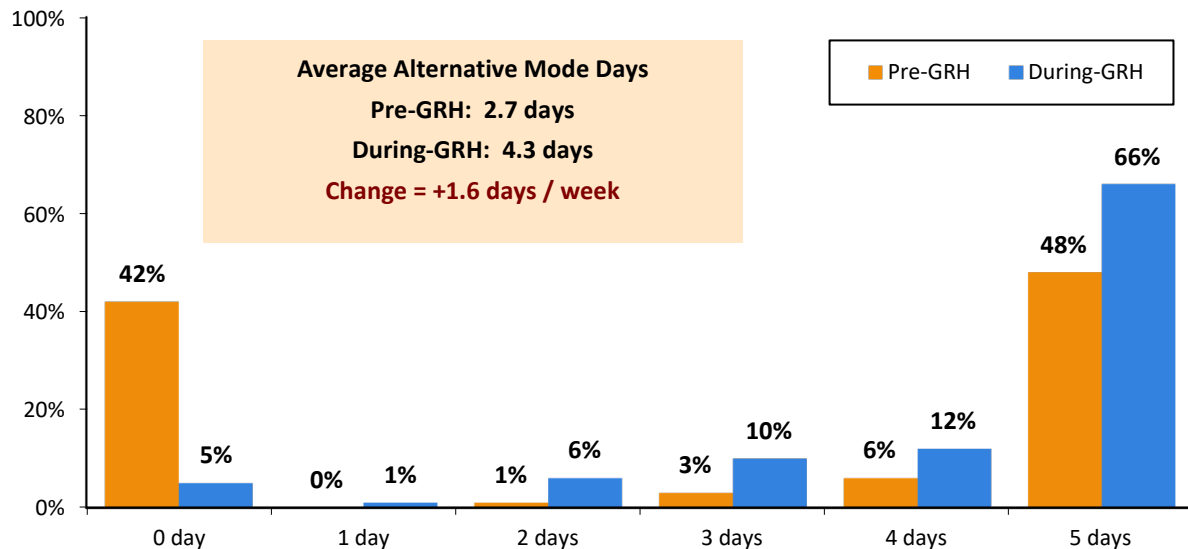
“During-GRH” Days in Alternative Modes Compared with “Pre-GRH” Days

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 per week they used these modes after registering for GRH? Only three respondents who were using an alternative

mode prior to GRH said they increased alternative mode frequency, so it was not possible to analyze the data for this small sample. But the analysis examined the overall frequency of alternative mode use for all GRH respondents. These results are shown in Figure 14.

Figure 14
Days Using Alternative Modes Pre-GRH and During-GRH (All GRH Respondents)

(Pre-GRH n = 92, During-GRH n = 96)



The average number of days all GRH participants used alternative modes increased, from 2.7 days per week pre-GRH to 4.3 days per week during-GRH. Most 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 increasing frequency among registrants who used alternative mode pre-GRH.

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:

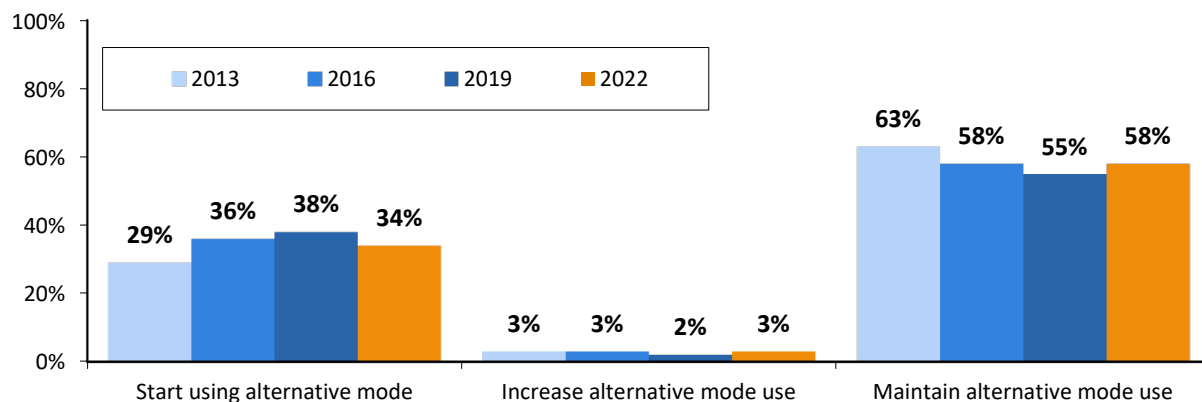
- Start alternative mode – Respondents who drove alone pre-GRH and started using alternative modes during-GRH
- Increase alternative mode – Commuters who were using an alternative pre-GRH and increased the frequency of alternative mode use during-GRH
- Maintain alternative mode – Commuters who were using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

Figure 15 divides respondents into these alternative mode change groups. One-third (34%) of respondents started using alternative modes at the time they joined GRH. Three percent (3 respondents) increased the number of days they used alternative modes. The largest share of respondents (58%) said they maintained 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. The 2022 percentages for alternative mode changes are statistically the same as for 2019.

Figure 15
Alternative Mode Changes from Pre-GRH to During-GRH – 2013 to 2022

(2013 n = 530, 2016 n = 318, 2019 n = 233, 2022 n = 92)

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



About 5% of respondents said they were not using an alternative mode while they were in GRH; this was about the same percentage as in 2019 (5%) and 2016 (3%). Respondents who were not using an alternative mode could be explained by the fact that most said they were current registrants, thus their “during-GRH” travel was set equal to their current travel. If these respondents had recently stopped using alternative modes, they might have said they were currently registered, even though they were no longer eligible for the program.

Importance to Decision to Start or Maintain Use of Alternatives

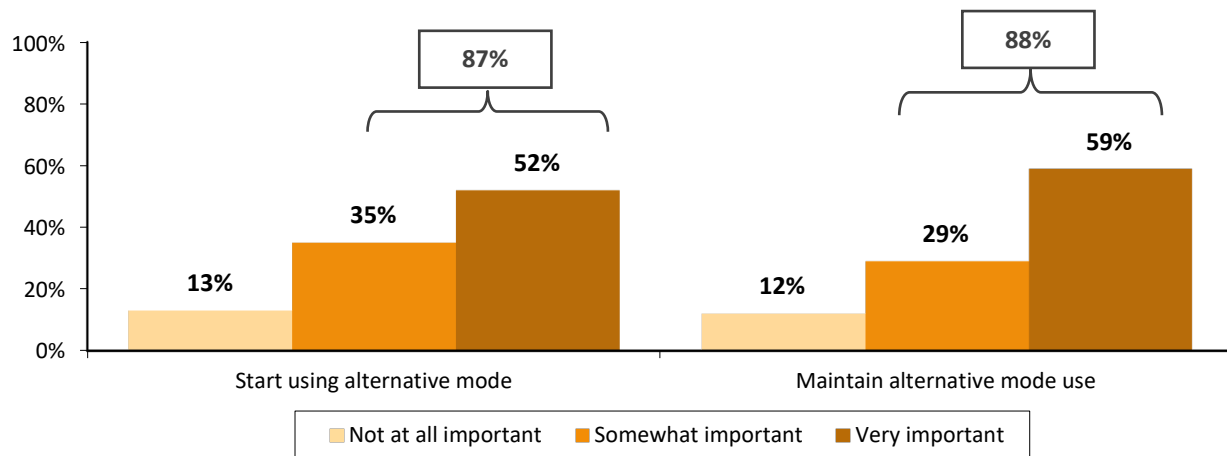
For whichever of the three commute pattern categories applied respondents were asked how important GRH was to their commute decision. Figure 16 presents the results for respondents who started or maintained alternative modes. The sample size (3 respondents) for respondents who increased alternative mode use was too small for reliable analysis.

Start Using Alternative Mode – Nearly nine in ten respondents who drove alone pre-GRH and started using alternative modes during-GRH said GRH had been important to their decision to make the change. Half (52%) said GRH was very important and 35% said it was somewhat important to the decision. The remaining 13% said GRH was not at all important.

Maintain Use of Alternative Mode – GRH appeared to be similarly important for respondents who maintained alternative mode use as for those who started using alternative modes. Almost nine in ten (88%) respondents who maintained alternative mode use said GRH was very important (59%) or somewhat important (29%) to their decision.

Figure 16
Importance of GRH to Start or Maintain Alternative Mode Use

(Start n = 31, Maintain n = 51; Note: Sample size for “Increase alternative mode use” was too small to analyze)



Importance of GRH by Registration Status – Current registrants and past registrants were equally likely to rate GRH as important to their mode change decisions. Among participants who started using an alternative mode, 86% of current registrants rated GRH as either important or very important. The share of past registrants who gave these high ratings was 88%, statistically the same as for current registrants. Respondents who maintained alternative mode use during-GRH also gave similar overall importance; 84% of current registrants and 90% of past registrants said GRH had been at least somewhat important to their decision.

Likely to Make Alternative Mode Changes if GRH Not Available

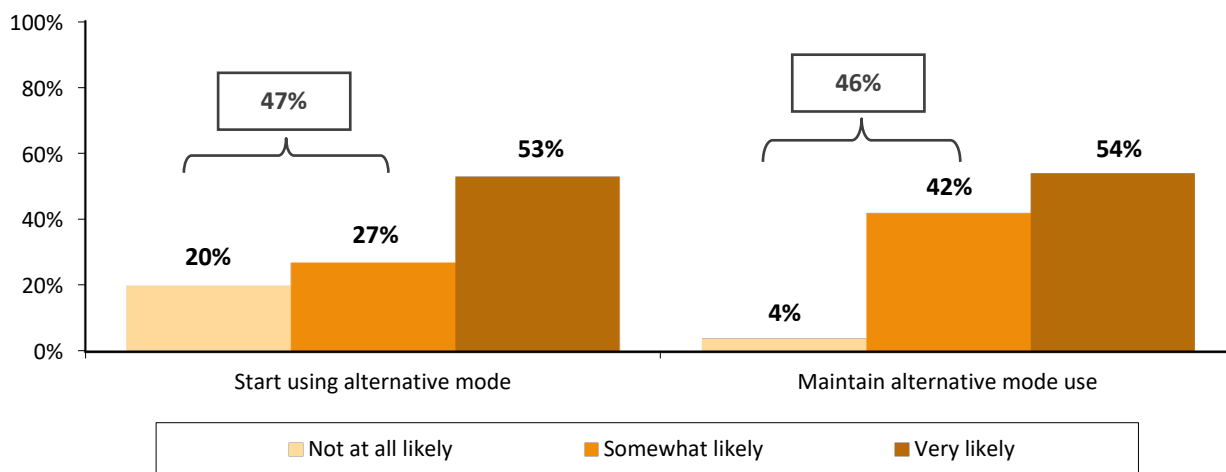
Respondents also were asked how likely they would have been to make the same commute change decisions if GRH had not been available to them. Figure 17 shows the likelihood mentioned by respondents who started alternative modes and those who maintained use of alternative modes.

Start Using Alternative Mode – Nearly half of respondents who started using alternative modes said they were not at all likely (20%) or only somewhat likely (27%) to have made the change if GRH had not been available. The remaining 53% said they were very likely to have made the change even if they did not have access to GRH. In other words, GRH had little to no influence on about half of respondents, a moderate influence for one-quarter, and a substantial influence for two in ten of these respondents.

Maintain Use of Alternative Mode – GRH seemed to be of similar value to registrants who were using alternative modes and did not make any changes during GRH (maintained alternative mode). Four in ten (42%) were only somewhat likely to have continued that mode even if GRH had not been available and 4% were not at all likely to have continued the mode. The remaining 54% were very likely to have continued without GRH.

Figure 17**Likely to Start or Maintain Use of Alternative Modes if GRH Not Available**

(Start n = 30, Maintain n = 50; Note: Sample size for "Increase alternative mode use" was too small to analyze)



Likelihood to Start or Continue Modes by Registration Status – There was no statistical difference between current and past registrants for their likelihood to start alternative modes; 43% of current registrants said they were somewhat or not at all likely to start using alternative modes while 50% of past registrants gave this response. There also was no difference between current and past registrants in likelihood to maintain alternative mode use; 47% of current registrants and 45% of past registrants who used alternative modes pre-GRH said they were not at all likely or only somewhat likely to take this action without GRH.

Other Influences Motivating Commute Changes

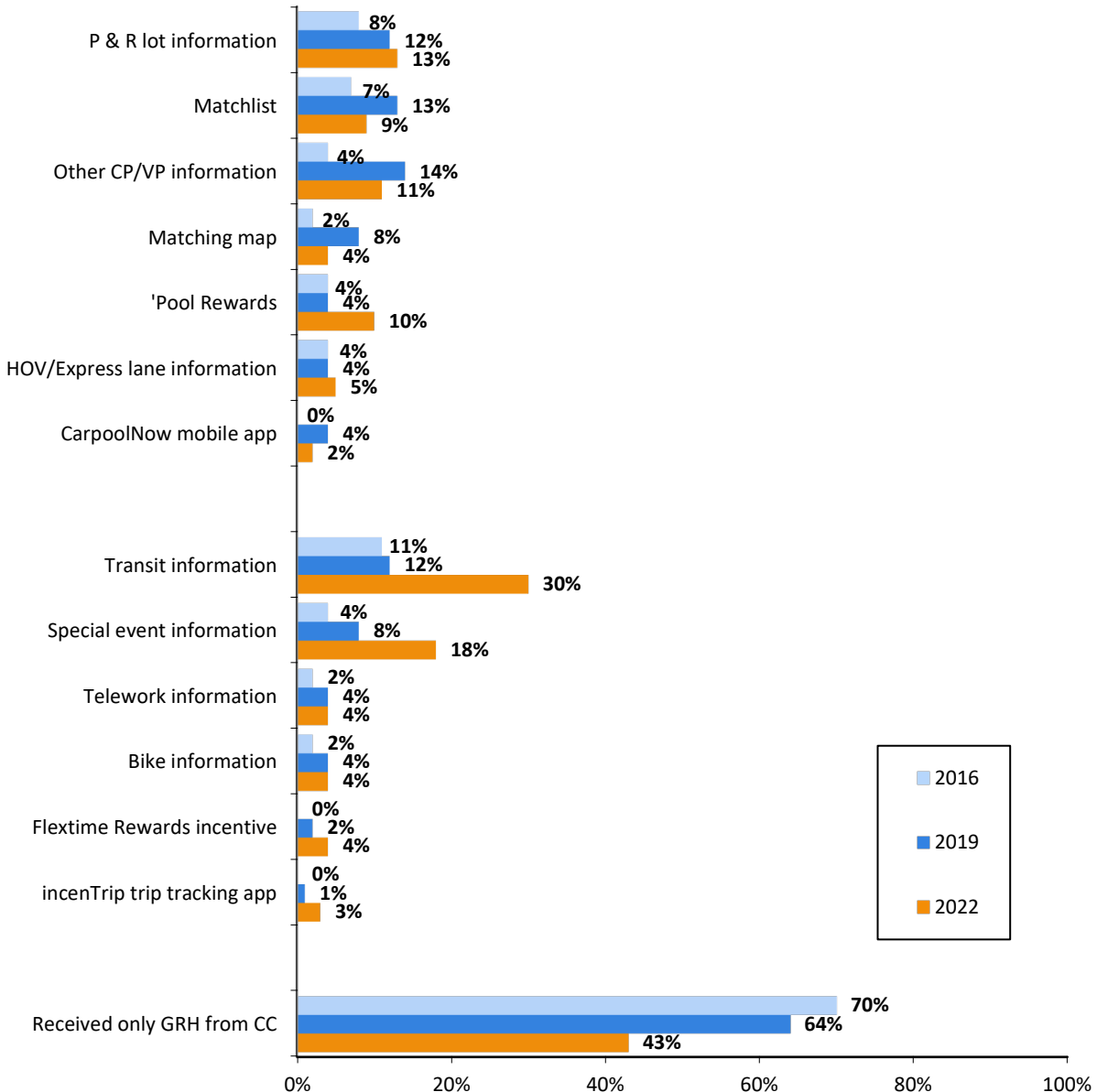
The results on the importance of GRH and the likelihood to make changes without GRH present an apparent contradiction. Despite the high percentage of respondents who rated GRH as very important or somewhat important to their decisions to use alternative modes, a large share of respondents said they were likely to have made these decisions anyway, implying that GRH was useful, but not essential, to their decisions. These results are consistent with past GRH surveys and with other GRH program evaluations. GRH users typically 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.

Thus, respondents were asked about 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 other commute assistance or benefits, 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 important to your decision?

Other Assistance or Benefits Received from Commuter Connections – Figure 18 lists the services that respondents mentioned receiving from Commuter Connections, in addition to GRH. About four in ten (43%) respondents said GRH was the only service they received from Commuter Connections. The other 57% noted one or more other services.

Figure 18
Assistance or Benefits Received from Commuter Connections, In Addition to GRH – 2016 to 2022
 (2016 n = 329, 2019 n = 241, 2022 n = 91; Multiple responses permitted)



About one in ten (9%) received a matchlist with names of potential carpool/vanpool partners, 4% received a rideshare matching map, and 11% received “other” carpool or vanpool information. Thirteen percent of respondents received information on Park & Ride lots from Commuter Connections and 5%

received HOV/Express lane information. Ten percent obtained information on the 'Pool Rewards carpool and vanpool incentive program and 2% of respondents said they had used the CarpoolNow real-time ridematching mobile app. The percentages of 2022 respondents who received each of these rideshare support services were generally like the percentages for the 2019 GRH survey, except that a higher share of respondents reported receiving 'Pool Rewards in 2022 (20%) than in either 2019 or 2016.

Figure 18 also shows use of transit, bike/walk, telework, and multi-modal services. Three in ten (30%) respondents obtained transit route or schedule information, the highest percentage of all services listed. About two in ten (18%) had received information on a special event such as Bike-to-Work Day. Both services were mentioned by higher shares of respondents in 2022 than 2019.

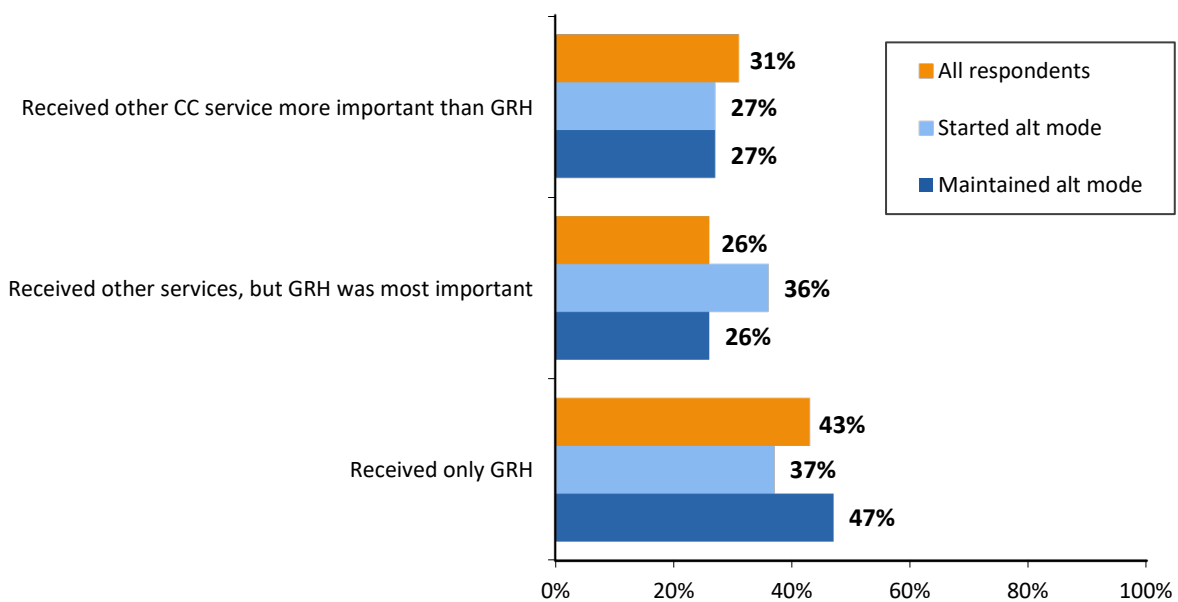
Four percent of respondents mentioned telework information in 2022 and 4% received bike information. Small shares of respondents also noted two other Commuter Connections services that were initiated in 2018; 4% had used the Flextime Rewards incentive and 3% had used the incenTrip trip tracking and points application.

Commuter Connections Assistance or Benefits that Were More Important than GRH – Respondents who also had received non-GRH services from Commuter Connections were asked if any of these services had been more important than GRH in influencing their use of alternative modes.

As noted above, 57% of respondents said they received Commuter Connections services in addition to GRH. Respondents who started a new alternative mode were slightly more likely to have received a non-GRH service (63%) than were respondents who maintained alternative mode use (53%) (Figure 19). But GRH was the most important of these services for 36% who started and 26% who maintained alternative mode use. Only 27% of respondents who started and 27% who maintained alternative mode use said another Commuter Connections service had been more important to their commute decision.

Figure 19
Commuter Connections Assistance or Benefits More Important than GRH to Mode Decisions

(All respondents n = 91, Started n = 30, Maintained n = 49)

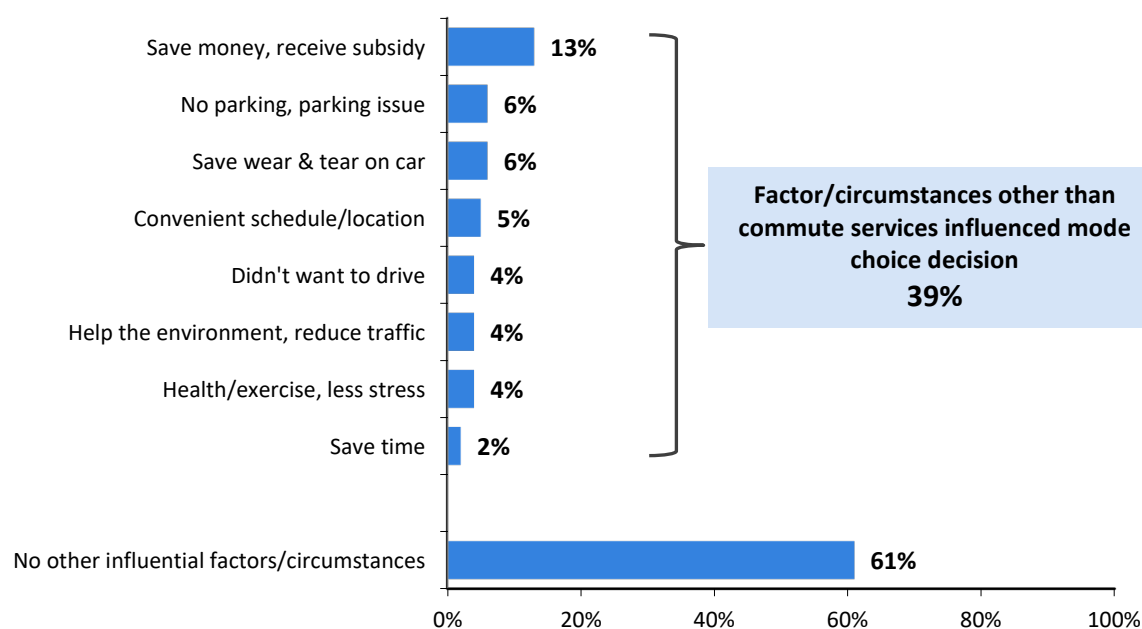


Influential Assistance or Benefits Received from Another Organization – Respondents also were asked about services they received from an employer or other organization that influenced their mode choice decisions. About one-third (35%) mentioned a service that had influenced their decision. All these respondents said the influential service was a transit pass, transit subsidy, vanpool subsidy, or pre-tax payroll deduction for commute travel costs.

Other Factors or Circumstances That Influenced Decision – Finally, respondents were asked if any other factors or circumstances, other than GRH, non-GRH services from Commuter Connections, and non-GRH assistance or benefits from another organization, had been important to their mode choice decision. About six in ten (61%) said no other factors or circumstances influenced their decision, but 39% mentioned one or more other factors (Figure 20). The most common factor was a desire to save money (13%). About one in twenty mentioned a parking issue (6%), wanting to save wear and tear on a personal vehicle (6%), and the alternative mode offering a convenient schedule or location (5%). Smaller shares of respondents noted other factors.

Figure 20
Other Factors/Circumstances Important to Decision to Make a Change in Alternative Modes

(n = 87, multiple responses permitted)



Use of and Satisfaction With GRH

Characteristics of Participants Who Used GRH Trips

Three in ten (30%) respondents said they had taken a GRH trip (Table 10). This was the same percentage as reported making a trip in 2019 (30%). The 2022 use rate was higher than the 21% reported in 2016 and the 10% reported in 2013, but the program was much newer at the time of these earlier surveys.

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

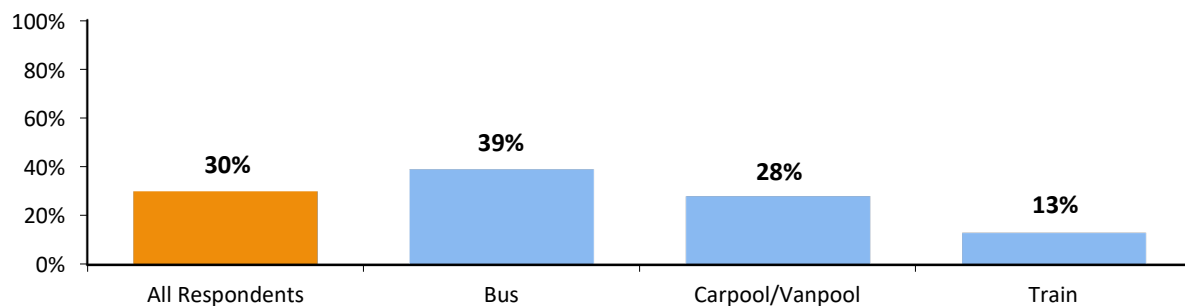
Taken a GRH Trip	All Respondents (n = 95)	Current Registrants (n = 35)	Past Registrants (n = 60)
Yes	30%	31%	30%
No	70%	69%	70%

Current registrants (31%) used GRH trips at the same rate as did past registrants (30%). Current and past registrants had been participating in GRH for about the same average amount of time (current – 45 months, past – 47 months), so current and past registrants would have had about the same amount of time in which to have had an occasion to make a trip.

Used GRH Trip by During-GRH Modes – Figure 21 compares use of GRH by three “during-GRH” mode groups: bus, carpool/vanpool, and train (commuter rail and subway/light rail). Bus riders reported the highest use of GRH trips; 39% of respondents who rode a bus while they were registered for GRH had taken a GRH trip. About three in ten carpoolers/vanpoolers took a trip. Train riders had the lowest usage; 13% of respondents in this category had taken a GRH trip.

Figure 21
Used GRH Trip by Primary Commute Mode During-GRH

(All respondents n = 95, Bus n = 36, Carpool/Vanpool n = 29, Train n = 16)
 (Bike/walk not shown due to very small sample size)

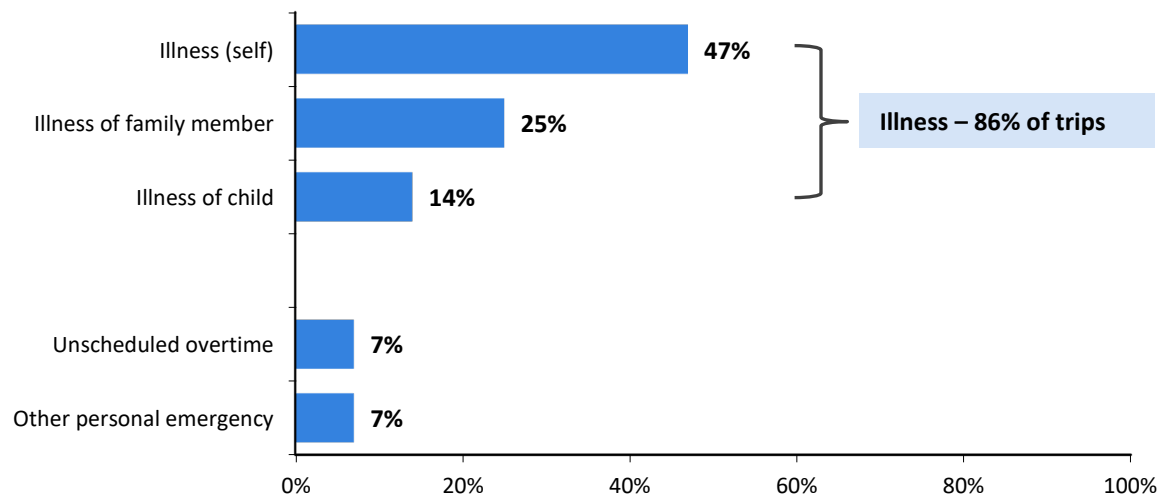


Reasons for Taking GRH Trip

Figure 22 lists the reasons for which participants used the service for their most recent trip. More than eight in ten GRH trips were taken to address an illness: respondent (47%), another family member (25%), or a child (14%). Unscheduled overtime (7%) and other personal emergency were the other two reasons cited.

Figure 22
Reason for Taking Most Recent GRH Trip

(n = 28)



Satisfaction with the Trip

Participants, who had taken a GRH trip were asked if the service was satisfactory. The overwhelming majority (85%) said they were satisfied. The primary reason given by unsatisfied respondents was that they waited too long for the GRH ride provider (3 of 4 dissatisfied respondents).

Respondents waited an average of 36 minutes for the GRH ride provider, longer than the wait times calculated in the 2019 survey (27), 2016 survey (28 minutes) and 2013 survey (27 minutes). In 2022, about four in ten (38%) said the ride provider arrived within 20 minutes, but more than one-quarter (28%) of respondents waited more than 45 minutes (Table 11).

Table 11
Time Waited for GRH Ride Provider

(n = 29)

Wait Time	Percentage	Cumulative Percentage
5 minutes or less	3%	3%
6 to 10 minutes	14%	17%
11 to 20 minutes	21%	38%
21 to 30 minutes	17%	55%
31 to 45 minutes	17%	72%
46 or more minutes	28%	100%

Desired Improvements to the GRH Program

Participants appeared generally quite satisfied with the GRH Program. Five percent of respondents said no improvement was necessary for the GRH program and 73% did not provide any suggestions for improvements. The remaining 22% mentioned various suggestions (Table 12). The most frequently mentioned improvement was for the program to cover a wider area for trips (5%) and to have an easier/faster process for approving ride requests (4%).

Table 12
Suggested Improvements to GRH Program

Desired Improvement	Percentage*
Wider area for trips	5%
Quicker response for ride requests	4%
More advertising/more program information	2%
Better communication about how program works	2%
Extend hours for use	2%
GRH drivers more knowledgeable about the program	2%
Other	6%
No improvement needed	5%
Don't know/no suggestions were provided	73%

* Percentages might add to more than 100% due to multiple responses

Social Networking/Social Media and Travel Information Applications

The 2022 GRH survey included two questions to examine the growing use of social networking/social media and traveler information mobile applications.

Social Networking/Social Media Applications

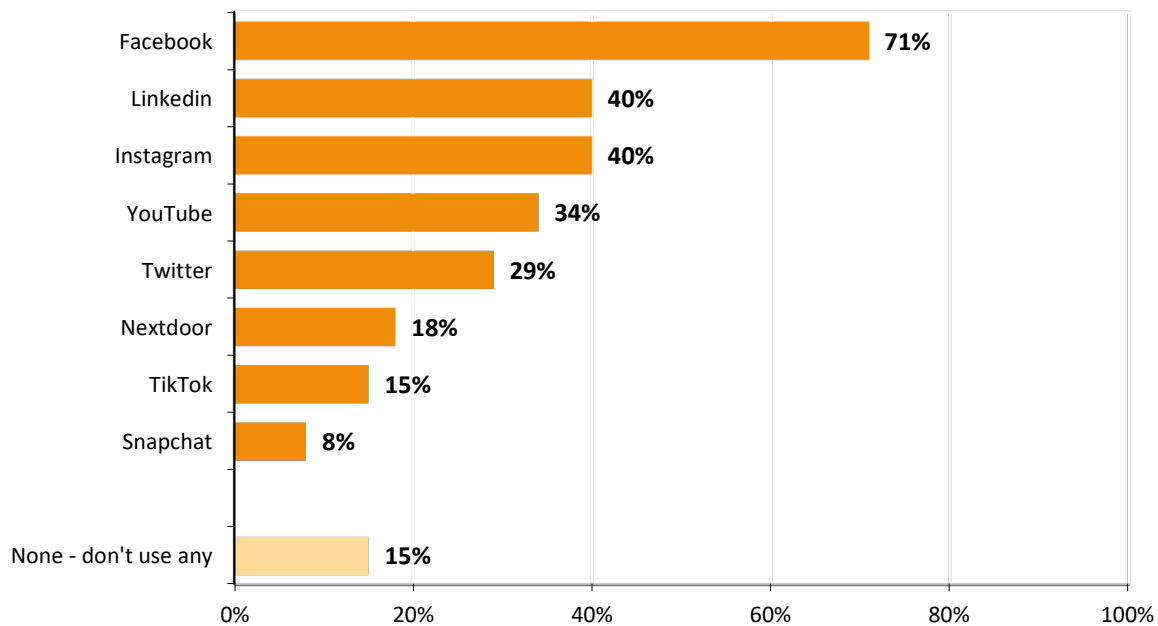
Use of social networking/social media applications has become a daily part of life for many people and these apps have become a common source of information. GRH survey respondents were shown a list of eight applications and asked to indicate those with which they had accounts (Figure 23).

Eighty-five percent of GRH respondents said they had an account with at least one of the applications. The most common application was Facebook, used by 71% of respondents. LinkedIn, used primarily for work-related/professional interactions, was noted by 40% of respondents and 40% had an account with Instagram. One-third (34%) had a YouTube account and three in ten (29%) had an account with Twitter. Two in ten (18%) mentioned a Nextdoor account, 15% reported an account with TikTok, and 8% had a Snapchat account.

The results from the 2022 survey were very close to those from 2019, with two exceptions; Instagram was mentioned by a larger segment of respondents in 2022 (40%) than in 2019 (26%) and Snapchat was cited by a smaller share of 2022 respondents (8%) than in 2019 (15%). YouTube and TikTok had not been included in the list in 2019, so there is no comparison data for these apps.

Figure 23
Social Networking/Social Media Applications – GRH Registrants with Accounts

(n = 93)



Travel/Trip Information Applications

Wide-scale availability of smartphones and other mobile devices also has created an opportunity for commute information and service organizations to deliver an extensive range of traveler information via mobile applications, enhancing commuters' access to travel information in real time and before and during a trip. Both the 2019 GRH survey and 2022 GRH survey included a question to identify applications used by GRH registrants. Survey respondents were shown a list of nine applications and asked to indicate those they had used.

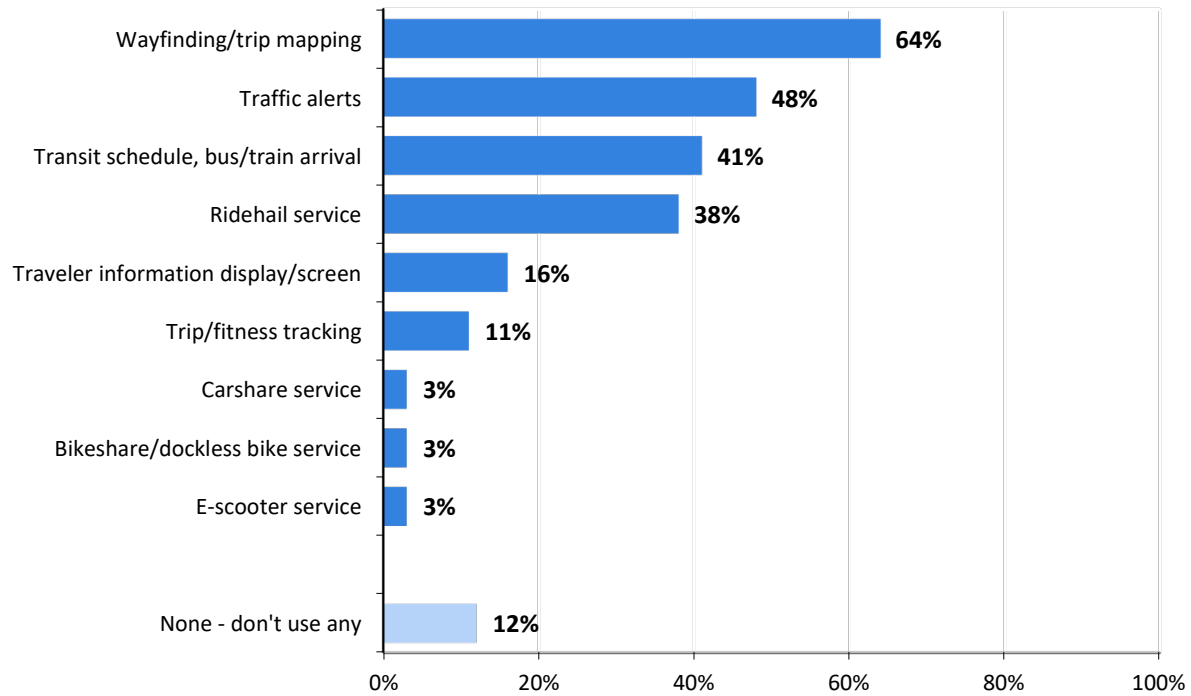
Nearly nine in ten (88%) GRH respondents had used at least one of the listed applications (Figure 24). The most common application, used by nearly two-thirds (64%) of respondents was wayfinding or trip mapping apps, such as Google maps and Waze. About half (48%) of respondents had used traffic alerts delivered via text message or other means.

More than four in ten (41%) GRH registrants had used an application that tracked transit schedules or provided "next bus/train" information on arrival time and 38% had used an application for a ridehail service such as Uber, Lyft, or Via. Sixteen percent had used a traveler information display or screen located in a public location and 11% had used a trip or fitness tracking app. Smaller shares of respondents had used applications for carshare (3%), bikeshare (3%), and e-scooter (3%) services.

The results from the 2022 survey were statistically the same as from the 2019 survey. In 2019, 85% of respondents had used one or more of the apps and each individual app was named by statically the same percentage of respondents in 2022 as in 2019.

Figure 24
Travel/Trip Information Applications – GRH Registrants Using Apps

(n = 92)



APPENDICES

Appendix A – Survey Questionnaire

Appendix B – Respondent Alert Letters

Appendix C – Disposition of Final Dialing Results

Appendix D – Results from 2022, 2019, 2016, 2013 GRH Surveys – Comparison on Key Questions

APPENDIX A – SURVEY QUESTIONNAIRE

MWCOG 2022 Guaranteed Ride Home Survey - Internet Version

INTRO: Commuter Connections is conducting this survey of commuters who have registered for or participated in the Baltimore metropolitan region and St. Mary’s County Guaranteed Ride Home (GRH) program. Your answers will be confidential. It will take about 7 to 10 minutes. Please complete the survey and click on the “SUBMIT” button at the end.

Commuter Connections is offering a drawing for five \$50 Amazon gift cards for commuters who complete the survey. If you would like to participate in the drawing for one of the gift cards, please provide your name and email address at the end of the survey.

Thank you for your participation.

REGISTRATION INFORMATION

ASK EVERYONE:

- Q1. In what year did you first register for the Baltimore metropolitan region and St. Mary’s County GRH program? **(OPTIONAL.)**
- | | |
|-----------------------------------------------|--------------|
| 01 Before 2017 | → SKIP TO Q2 |
| 02 2017 | → SKIP TO Q2 |
| 03 2018 | → SKIP TO Q2 |
| 04 2019 | → SKIP TO Q2 |
| 05 2020 | → SKIP TO Q2 |
| 06 2021 | → SKIP TO Q2 |
| 07 2022 | → SKIP TO Q2 |
| 97 Never registered, don’t recall registering | → SKIP TO Q3 |
| 98 Don’t remember/don’t know year registered | |
| 99 <i>Left blank</i> | |

THOSE WHO DON’T REMEMBER WHEN THEY REGISTERED OR LEFT BLANK [Q1(98,99)], ASK:

- Q1A. Do you recall that you did register for the GRH program at some time? **(OPTIONAL.)**
- | | |
|----------------------|--------------------------------|
| 01 Yes | |
| 02 No | → SKIP TO Q3 AND RECODE Q1(97) |
| 98 Don’t know | → SKIP TO Q3 AND RECODE Q1(97) |
| 99 <i>Left blank</i> | → SKIP TO Q3 AND RECODE Q1(97) |

THOSE WHO RECALL REGISTERING [Q1(01-07) OR Q1A(01)], ASK:

- Q2. Are you currently registered for the GRH program? **(OPTIONAL.)**
- | | |
|----------------------|--------------|
| 01 Yes | → SKIP TO Q6 |
| 02 No | → SKIP TO Q4 |
| 98 Don’t know | → SKIP TO Q4 |
| 99 <i>Left blank</i> | → SKIP TO Q4 |

IF [Q1(97) OR Q1A(02,98,99)], ASK:

- Q3. Have you ever taken a GRH trip provided by the Baltimore/St. Mary’s County GRH program?
- | | |
|----------------------|-----------------------|
| 01 Yes | |
| 02 No | → THANK AND TERMINATE |
| 99 <i>Left blank</i> | → THANK AND TERMINATE |

THOSE WHO DON'T RECALL REGISTERING AND TOOK A GRH TRIP Q3(01), ASK:

Q3A. For what reason did you not register for the GRH program after you took this one-time GRH trip? **(OPTIONAL.)**

IF [Q1(97) OR Q1A(02,98,99)], SKIP TO Q8:**THOSE WHO ARE NOT REGISTERED OR DON'T KNOW IF THEY ARE CURRENTLY REGISTERED FOR GRH [Q2(02,98,99)], ASK:**

Q4. How long were you registered in the GRH program? **(OPTIONAL.)**

- 01 Less than 1 year
- 02 1 year
- 03 2 years
- 04 3 years
- 05 More than 3 years
- 98 Don't remember/don't know
- 99 *Left blank*

Q5. Why did you not re-register when your registration expired? **(OPTIONAL.)**

THOSE WHO RECALL REGISTERING FOR GRH [Q1(01-07) OR Q1A(01)], ASK:

Q6. Did you participate in another GRH program before registering for the Baltimore/St. Mary's County GRH program? **(OPTIONAL.)**

- 01 Yes
- 02 No → **SKIP TO Q8**
- 98 Don't know → **SKIP TO Q8**
- 99 *Left blank* → **SKIP TO Q8**

THOSE WHO PREVIOUSLY PARTICIPATED IN ANOTHER GRH PROGRAM [Q6(01)], ASK:

Q7. Who offered/sponsored that program? **(OPTIONAL.)**

- 01 My employer
- 02 County or city government
- 03 VRE
- 95 Other (**specify**)
- 99 *Left blank*

CURRENT COMMUTE PATTERNS**ASK EVERYONE:**

Q8. Next, think about your travel to work. First, in a TYPICAL week, how many weekdays (Monday-Friday) are you assigned to work? If it varies from week to week, select the response that is most typical.

- 01 1 day per week
- 02 2 days per week
- 03 3 days per week
- 04 4 days per week
- 05 5 days per week
- 00 0 weekdays (not currently working or work only on weekends) → **SKIP TO INTRO TO DEMOGRAPHICS – BEFORE Q60**

THOSE WHO ARE TYPICALLY ASSIGNED TO WORK WEEKDAYS [Q8(01-05)], ASK:

Q10. Which of the following best represents your work schedule? **(OPTIONAL.)**

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)**
- 99 *Left blank*

Q10A. Do you currently telecommute or work from home some or all of your workdays? You might refer to this as teleworking or working remotely. For purposes of this survey, “telecommuters” are defined as “wage and salary employees who at least occasionally work at home or at a telework, satellite, or co-working center during **an entire work day**, instead of traveling to their regular work place.” Based on this definition, do you telecommute some or all of your workdays at the PRESENT TIME? **(OPTIONAL.)**

- 01 Yes, telecommute/work from home **all** of my workdays
- 02 Yes, telecommute/work from home **some** of my workdays
- 03 No, do not telecommute any workdays now
- 98 Don't know
- 99 *Left blank*

IF [Q10A(01)], AUTOCODE Q10B(07),

IF [Q10A(03)], AUTOCODE Q10B(08),

THOSE WHO CURRENTLY WORK FROM HOME SOME WORKDAYS OR ARE UNSURE [Q10A(02,98,99)], ASK:

Q10B. How often do you usually telecommute or work from home now? Please include only days you work from home for a full day on a regular workday. **(SHOW RESPONSES 01-07 AND 95; DO NOT SHOW RESPONSES 08 OR 99) (OPTIONAL.)**

- 1 Less than 1 time per month, only in emergencies (e.g., sick child, snowstorm)
- 2 1 to 3 times per month
- 3 1 day per week
- 4 2 days per week
- 5 3 days per week
- 6 4 days per week
- 7 All of my workdays (or 5 or more days a week)
- 8 **AUTOCODE** - *Never, don't telecommute now*
- 95 Other **(specify)**
- 99 *Left blank*

THOSE WHO ARE TYPICALLY ASSIGNED TO WORK WEEKDAYS [Q8(01-05)], ASK:

Q10C. How often did you usually telecommute or work from home two years ago, in February 2020, before the coronavirus pandemic began? **(OPTIONAL.)**

- 01 Less than 1 time per month, only in emergencies (e.g., sick child, snowstorm)
- 02 1 to 3 times per month
- 03 1 day per week
- 04 2 days per week
- 05 3 days per week
- 06 4 days per week
- 07 All of my workdays (or 5 or more days a week)
- 08 Never, I did not telecommute/work from home before the coronavirus pandemic
- 95 Other **(specify)**
- 99 *Left blank*

THOSE WHO DO NOT TELECOMMUTE ALL OF THEIR WORKDAYS NOW [Q10B(01-06,08,95,99)], ASK:

Q11. 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)?

- 01 Never, I do not currently travel for work at all
- 02 Occasionally, but less than 1 day per week
- 03 Regularly, 1 or more days per week
- 98 Not sure
- 99 *Left blank*

**IF [Q10B(07)], AUTOCODE Q14.2=Q8 (NUMBER OF WEEKDAYS WORKED) AND Q14.17=5-Q8.
IF Q14 IS FULLY AUTOCODED, DO NOT SHOW Q14 ON THE SCREEN.**

IF WORK ON A WEEKDAY [Q8(01-05)] AND NOT AUTOCODED, ASK:

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 Q11(03): “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 (if any) you telecommute/work from home or have a regular day off or compressed work schedule day off.

Q14 PROGRAMMER NOTES:

CHECK SUM OF Q14 DAYS. IF TOTAL OF Q14.1-21 IS LESS THAN 5, SHOW MESSAGE: “Please report for all days Monday – Friday, including telework days, compressed schedule days, and days you do not work.”
IF TOTAL OF Q14.1-21 IS GREATER THAN 5, SHOW MESSAGE: “You’ve reported more than 5 days. Please report only for Monday – Friday and only one type of transportation per day.”

Type of Transportation	Days Used, Mon-Fri (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)	
6 Casual carpool (slugging)	
7 Vanpool	
8 Baltimore Metro Subway	
9 Bus (public, private, shuttle, buspool, commuter/express bus)	
10 Metrorail	
11 MARC (MD commuter rail)	
12 VRE (Virginia commuter rail)	
13 AMTRAK / other train	
14 Bicycle/e-scooter (entire trip or longest distance part of trip)	
15 Walk (entire trip from home to work)	
16 Taxi	
18 Uber, Lyft, Via	
19 Light rail	
21 Other (specify) _____	
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	
Total Days (DO NOT SHOW THIS LINE ON SCREEN)	Sum of 1-21

THOSE WHO TYPICALLY CARPOOL OR VANPOOL AT LEAST ONCE A WEEK [Q14.05-07(01-05)], ASK:

Q14A. Including yourself, how many people usually ride in your [carpool or vanpool]? (IF MORE THAN ONE ANSWER IN Q14, SELECT ONE USING THIS PRIORITY: vanpool, carpool, casual carpool.) (OPTIONAL.)

_____ total people in pool

99 Left blank

THOSE WHO ARE TYPICALLY ASSIGNED TO WORK WEEKDAYS [Q8(01-05)]:**DEFINE CALTDAYS (days currently using alternative modes)**

CALTDAYS = TOTAL Q14_5-15, 19 DAYS

DEFINE CMCA (Current Most Common Alternate)

Set CMCA using Q14_5-15, 19 alt mode used most days

IF CALTDAYS = 0, SET CMCA = 96 (no MCA)

IF CALTDAYS > 0, SET CMCA AS FOLLOWS:

IF GREATEST NUMBER OF Q14.5-15, 19 =

Q14.5, SET CMCA = 5 (Carpool)

Q14.6, SET CMCA = 6 (Casual Carpool / Slug)

Q14.7, SET CMCA = 7 (Vanpool)

Q14.8, SET CMCA = 8 (Baltimore Metro Subway)

Q14.9, SET CMCA = 9 (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)

Q14.19 SET CMCA = 19 (Light rail)

IF TIE FOR MOST Q14 DAYS USED, SELECT IN THIS ORDER:

VANPOOL, CARPOOL, BUS, VRE, MARC, BALTIMORE METRO SUBWAY, LIGHT RAIL, METRORAIL, AMTRAK, CASUAL CARPOOL, BIKE, WALK

DEFINITION OF REGISTRATION/ELIGIBILITY STATUS (GRHTYPE)

IF Q1(01-07, 98, 99) AND Q2(01) AND CALTDAYS > 0: GRHTYPE(1) (CURR_REG)

IF Q1((01-07, 98, 99) AND Q2(01) AND CALTDAYS = 0) OR ((Q1(01-07, 98, 99) AND Q2(02,98,99)) OR ((Q1(97) AND Q3(01) AND CALTDAYS = 0)): GRHTYPE(2) (PAST_REG)

IF Q1(97) AND Q3(01) AND CALTDAYS > 0, GRHTYPE(3) (ONE_TIME)

IF (CALTDAYS > 0), SKIP TO Q15 INSTRUCTIONS

IF (CALTDAYS = 0 AND ANY OF Q14.3,4,16,18,21 > 0), SKIP TO Q14B

IF (CALTDAYS = 0 AND (Q10B(07) OR Q14.2 = Q8 (FULL-TIME TW))), ASK:

Q14A1. You said you typically telecommute/work from home all of your workdays. If you were not telecommuting now, would you likely be using any of the following types of transportation to get to work? Select all that apply. **(ALLOW MULTIPLE RESPONSES.)**

- 01 Carpool or casual carpool (slug)
- 02 Vanpool
- 03 Bus or train
- 04 Bike or walk
- 05 Would not be using any of these modes now **(EXCLUSIVE)**
- 99 *Left blank*

**IF (CALTDAYS = 0 AND ([Q10B(07)] OR Q14.2 = Q8 (FULL-TIME TW))), SKIP TO Q21
IF (CALTDAYS = 0 AND ANY OF Q14.3,4,16,18,21 > 0), ASK:**

Q14B. You said you typically do not use any of the types of transportation that are eligible for the GRH program. Do you occasionally use any of the following types of transportation to get to work? Select all that apply. **(ALLOW MULTIPLE RESPONSES.)**

- 01 Carpool or casual carpool (slug)
- 02 Vanpool
- 03 Bus or train
- 04 Bike or walk
- 05 Do not use any of these modes now **(EXCLUSIVE)**
- 99 *Left blank*

IF (CALTDAYS > 0) OR (CALTDAYS = 0 AND ANY OF Q14.3,4,16,18,21 > 0), ASK:

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

_____ miles one way **(RANGE 0-300.)**
999 *Left blank*

Q16. And about how many minutes does it take you to get to work? **(OPTIONAL.)**

_____ minutes **(RANGE 0-300.)**
999 *Left blank*

Q16A. At what time do you typically arrive at work? **(OPTIONAL.)**

- 01 12:00 am (midnight) – 5:59 am
- 02 6:00 am – 6:59 am
- 03 7:00 am – 7:59 am
- 05 8:00 am – 8:59 am
- 07 9:00 am – 9:59 am
- 09 10:00 am – 2:59 pm
- 10 3:00 pm – 6:59 pm
- 11 7:00 pm – 11:59 pm
- 98 Don't know
- 99 *Left blank*

INSTRUCTIONS BEFORE Q16B.

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

IF [Q8(01,02,03,04,05)], ASK:

**IF SUM OF (Q14.3-7, 16, 18, 21)= 4 OR 5, INSERT V1
IF SUM OF (Q14.3-7, 16, 18, 21)) = 1, 2, OR 3, INSERT V2
IF SUM OF (Q14.3-7, 16, 18, 21)) = 0, INSERT V3**

Q16B.

V1 – “What Interstate highways or major U.S. or state routes do you use on your trip to work? Select all that apply.”

V2 – “On days that you drive or ride to work in a personal vehicle, what Interstate highways or major U.S. or state routes do you use? Select all that apply.”

V3 – “If you were to drive to work, what Interstate highways or major U.S. or state routes would you use? Select all that apply.” **(OPTIONAL.)**

THEN SHOW LIST BELOW TO ALL RESPONDENTS. ACCEPT MULTIPLES FOR 1 - 26 AND 95, DO NOT ALLOW MULTIPLES WITH 96

Interstate Highways

- 1 I-70 (MD)
- 2 I-83 (Jones Falls Expressway, JFX)
- 3 I-95 (MD - Kennedy Highway)
- 4 I-95 (VA – south of Washington DC)
- 5 I-97 (MD)
- 6 I-195 (Metropolitan Blvd / BWI Airport)
- 7 I-270 (MD)
- 8 I-295 (DC / MD)
- 9 I-395 (MD - Cal Ripken Way)
- 10 I-395 (VA – Shirley Highway)
- 11 I-495 (Capital Beltway – Washington region)
- 12 I-695 (Baltimore Beltway)
- 13 I-795 (Northwest Expressway)
- 14 I-895 (Harbor Tunnel Thruway)

Major U.S./State Routes

- 15 US Route 1 (Belair Road, Baltimore Pike, Bel Air Bypass, Conowingo Road)
- 16 US Route 29 (Columbia Pike, Colesville Road)
- 17 US Route 40 (Pulaski Highway)
- 18 MD 295 (BW Parkway, Baltimore-Washington Parkway)
- 19 US Route 50 (John Hanson Highway)
- 20 US Route 301
- 21 MD Route 32
- 22 MD Route 100
- 23 MD Route 235
- 24 MD Route 5
- 25 MD Route 425
- 26 MD Route 4

- 95 Other (**specify**)
- 96 No Interstate, U.S. or state routes
- 99 *Left blank*

IF CALTDAYS=0, SKIP TO Q21 INSTRUCTIONS

IF CALTDAYS>0, ASK:

Q17. About how long have you been using [**CMCA**: carpool, vanpool, bus, train, bicycle, walk] for your trip to work? Please enter the number of MONTHS. [Hover here for a years-to-months conversion table.](#) **(RANGE 1-500.) (OPTIONAL.)**

_____ months

998 Don't know

999 *Left blank*

IF [SUM OF Q14.5-13, 19=0], SKIP TO Q21 INSTRUCTIONS**THOSE WHO USE CARPOOL, VANPOOL, TRAIN, OR BUS [Q14.5-13, 19(01-05)], ASK:**

- Q19. How do you get from home to where you meet your [carpool, vanpool, bus, train*]? (OPTIONAL. *SELECT Q19MODE AS GREATEST NUMBER OF Q14 DAYS, IF TIE CHOOSE IN THIS ORDER: VANPOOL (Q14.7), CARPOOL (Q14.5+Q14.6), BUS (Q14.9), TRAIN (Q14.10+Q14.11+Q14.12+Q14.13+Q14.8+Q14.19))
- 01 Picked up at home by car/vanpool (or car/vanpool leaves from my home) [DO NOT SHOW IF Q19MODE: BUS OR TRAIN] → SKIP TO INSTRUCTIONS BEFORE Q21
 - 02 Drive alone to driver's home or drive alone to passenger's home [DO NOT SHOW IF Q19MODE: BUS OR TRAIN]
 - 03 Drive to a central location, like a park & ride or bus stop/train station
 - 04 Dropped off (including by household member)
 - 05 Bicycle (personal bike or Capital Bikeshare bike)
 - 06 Motorcycle
 - 07 Walk
 - 08 I am always the driver of carpool/vanpool [DO NOT SHOW IF Q19MODE: BUS OR TRAIN] → SKIP TO INSTRUCTIONS BEFORE Q21
 - 09 Bus/transit [DO NOT SHOW IF Q19MODE: BUS]
 - 10 Taxi
 - 11 Uber, Lyft, Via
 - 95 Other (specify)
 - 99 Left blank

IF [Q19(02-07,09-11,95,99)], ASK:

- Q20. How many miles is it one way from your home to where you meet your [SAME MODE AS Q19: carpool, vanpool, bus, train]? (OPTIONAL.)
- _____ miles (ALLOW DECIMALS)
- 999 Left blank

MODE DURING GRH (Past Registrants)**IF [GRHTYPE(1)], SKIP TO Q27****IF [GRHTYPE(3)], SKIP TO Q24****IF [GRHTYPE(2)], ASK:**

- Q21. Next, think back to the time that you were [if Q2(02,98,99): registered] [IF Q2(01) OR Q3(01): eligible] for the GRH program. During that time, how many days, Monday – Friday, were you assigned to work in a typical week?
- 01 1 day per week
 - 02 2 days per week
 - 03 3 days per week
 - 04 4 days per week
 - 05 5 days per week
- Q23. And while you were [if Q2(02,98,99): registered] [IF Q2(01) OR Q3(01): eligible] for GRH, how did you get to work? Enter the number of days, Monday through Friday, that you typically used each of the listed types of transportation. If you used more than one type on a single day (e.g., walked to the bus stop, then rode the bus), count only the type you used for the **longest distance part** of your trip.
- Indicate also how many weekdays (if any) you telecommuted/worked from home or had a regular day off or compressed work schedule day off.

CHECK SUM OF Q23 DAYS.

IF TOTAL OF Q23.1-21 IS LESS THAN 5, SHOW MESSAGE: "Please report for all days Monday – Friday, including telework days, compressed schedule days, and days you did not work."

IF TOTAL OF Q23.1-21 IS GREATER THAN 5, SHOW MESSAGE: "You've reported more than five days. Please report only for Monday – Friday and only one type of transportation per day."

Type of Transportation – While <i>Registered or Eligible</i> for GRH	Days Used, Mon-Fri (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)	
6 Casual carpool (slugging)	
7 Vanpool	
8 Baltimore Metro Subway	
9 Bus (public, private, shuttle, buspool, commuter/express bus)	
10 Metrorail	
11 MARC (MD commuter rail)	
12 VRE (Virginia commuter rail)	
13 AMTRAK / other train	
14 Bicycle/e-scooter (entire trip or longest distance part of trip)	
15 Walk (entire trip from home to work)	
16 Taxi	
18 Uber, Lyft, Via	
19 Light rail	
21 Other (specify)	
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	
Total Days (DO NOT SHOW THIS LINE ON SCREEN)	Sum of 1-21

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

DALTDAYS = TOTAL Q23.5-15, 19 DAYS

DEFINE DMCA (During Most Common Alternate)

Set DMCA using Q23.5-15, 19 alt mode used most days

IF DALTDAYS = 0, SET DMCA = 96 (no MCA)

IF DALTDAYS > 0, SET DMCA AS FOLLOWS:

IF GREATEST NUMBER OF Q23.5-15, 19 =

Q23.5, SET DMCA = 5 (Carpool)

Q23.6, SET DMCA = 6 (Casual Carpool / Slug)

Q23.7, SET DMCA = 7 (Vanpool)

Q23.8, SET DMCA = 8 (Baltimore Metro Subway)

Q23.9, SET DMCA = 9 (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)

Q23.19 SET DMCA = 19 (Light rail)

IF TIE FOR MOST DAYS USED, SELECT DCMA IN THIS ORDER:

VANPOOL, CARPOOL, BUS, VRE, MARC, BALTIMORE METRO SUBWAY, LIGHT RAIL, METRORAIL, AMTRAK, CASUAL CARPOOL, BIKE, WALK

MODE BEFORE HEARD ABOUT GRH (OTE only)

IF [GRHTYPE(2) AND Q2(01,02,98,99)], SKIP TO Q27

IF [(GRHTYPE(2) AND Q3(01)) OR GRHTYPE(3)], ASK:

(One-Time Exceptions mode before GRH)

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

00 Did not work any days Monday-Friday then, did not work in Baltimore or Washington area then

01 1 day per week

02 2 days per week

03 3 days per week

04 4 days per week

05 5 days per week

IF [Q24(00), AUTOCODE Q26_20(05)], THEN SKIP TO DEFINE BHALTDAYS

IF [Q24(01-05)], ASK:

Q26. And before you heard about GRH, how did you get to work? Enter the number of days, Monday through Friday, that you typically used each of the listed types of transportation. If you used more than one type on a single day (e.g., walked to the bus stop, then rode the bus), count only the type you used for the **longest distance part** of your trip.
Indicate also how many weekdays (if any) you telecommuted/worked from home or had a regular day off or compressed work schedule day off.

Q26 PROGRAMMER NOTES:**CHECK SUM OF DAYS.**

IF TOTAL OF Q26.1-21 IS LESS THAN 5, SHOW MESSAGE: "Please report for all days Monday – Friday, including telework days, compressed schedule days, and days you did not work."

IF TOTAL OF Q26.1-21 IS GREATER THAN 5, SHOW MESSAGE: "You've reported more than five days. Please report only for Monday – Friday and only one type of transportation per day."

Type of Transportation – Before Hearing About GRH	Days Used, Mon-Fri (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)	
6 Casual carpool (slugging)	
7 Vanpool	
8 Baltimore Metro Subway	
9 Bus (public, private, shuttle, buspool, commuter/express bus)	
10 Metrorail	
11 MARC (MD commuter rail)	
12 VRE (Virginia commuter rail)	
13 AMTRAK / other train	
14 Bicycle/e-scooter (entire trip or longest distance part of trip)	
15 Walk (entire trip from home to work)	
16 Taxi	
18 Uber, Lyft, Via	
19 Light rail	
21 Other (specify)	
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	
20 Did not work Monday-Friday then, did not work in Baltimore or Washington area then	
Total Days (DO NOT SHOW THIS LINE ON SCREEN)	Sum of 1-21

IF [(GRHTYPE(2) AND Q3(01)) OR GRHTYPE(3)]:

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

BHALTDAYS = TOTAL Q26.5-15, 19 DAYS

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

Set BHMCA using Q26.5-15, 19 alt mode used most days

IF BHALTDAYS = 0, SET BHMCA = 96 (no MCA)

IF BHALTDAYS > 0, SET BHMCA AS FOLLOWS:

IF GREATEST NUMBER OF Q26.5-15, 19 =

Q26.5, SET BHMCA = 5 (Carpool)

Q26.6, SET BHMCA = 6 (Casual Carpool / Slug)

Q26.7, SET BHMCA = 7 (Vanpool)

Q26.8, SET BHMCA = 8 (Baltimore Metro Subway)

Q26.9, SET BHMCA = 9 (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)

Q26.19 SET BHMCA = 19 (Light rail)

IF TIE FOR MOST DAYS USED, SELECT BHCMA IN THIS ORDER:

VANPOOL, CARPOOL, BUS, VRE, MARC, BALTIMORE METRO SUBWAY, LIGHT RAIL, METRORAIL, AMTRAK, CASUAL CARPOOL, BIKE, WALK

MODE BEFORE REGISTERED FOR GRH (Current Registrants, Past Registrants)

(Current Registrants and Past Registrants mode before GRH)

IF [(GRHTYPE(2) AND Q3(01)) OR GRHTYPE(3)], SKIP TO Q29A

IF [GRHTYPE(1) OR (GRHTYPE(2) AND Q2(01,02,98,99))]

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

00 0, did not work any days Monday – Friday then, did not work in Baltimore or Washington area then

01 1 day per week

02 2 days per week

03 3 days per week

04 4 days per week

05 5 days per week

IF [Q27(00) AUTOCODE Q29.1-20(05)], THEN SKIP TO BRALTDAYS

IF [Q27(01-05)], ASK:

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 (if any) you telecommuted/worked from home or had a regular day off or compressed work schedule day off.

Q29 PROGRAMMER NOTES:**CHECK SUM OF DAYS.**

IF TOTAL OF Q29.1-21 NOT EQUAL TO 5, SHOW MESSAGE: "Please report for all days Monday – Friday, including telework days, compressed schedule days, and days you did not work."

IF TOTAL OF Q29.1-21 IS GREATER THAN 5, SHOW MESSAGE: "You've reported more than five days. Please report only for Monday – Friday and only one type of transportation per day."

Type of Transportation – Before Registering for GRH	Days Used, Mon-Fri (0-5)
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)	
6 Casual carpool (slugging)	
7 Vanpool	
8 Baltimore Metro Subway	
9 Bus (public, private, shuttle, buspool, commuter/express bus)	
10 Metrorail	
11 MARC (MD commuter rail)	
12 VRE (Virginia commuter rail)	
13 AMTRAK / other train	
14 Bicycle/e-scooter (entire trip or longest distance part of trip)	
15 Walk (entire trip from home to work)	
16 Taxi	
18 Uber, Lyft, Via	
19 Light rail	
21 Other (please specify)	
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	
20 Did not work Monday-Friday then, did not work in Baltimore or Washington area then	
Total Days (DO NOT SHOW THIS LINE ON SCREEN)	Sum of 1-21

IF [GRHTYPE(1) OR (GRHTYPE(2) AND Q2(01,02,98,99))]

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

BRALTDAYS = TOTAL Q29.5-15, 19 DAYS

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

Set BRMCA using Q29.5-15, 19 alt mode used most days

IF BRALTDAYS = 0, SET BRMCA = 96 (no MCA)

IF BRALTDAYS > 0, SET BRMCA AS FOLLOWS:

IF GREATEST NUMBER OF Q29.5-15, 19 =

Q29.5, SET BRMCA = 5 (Carpool)

Q29.6, SET BRMCA = 6 (Casual Carpool / Slug)

Q29.7, SET BRMCA = 7 (Vanpool)

Q29.8, SET BRMCA = 8 (Baltimore Metro Subway)

Q29.9, SET BRMCA = 9 (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)

Q29.19 SET BRMCA = 19 (Light rail)

IF TIE FOR MOST DAYS USED, SELECT BRMCA IN THIS ORDER:

**VANPOOL, CARPOOL, BUS, VRE, MARC, BALTIMORE METRO SUBWAY, LIGHT RAIL, METRORAIL, AMTRAK,
CASUAL CARPOOL, BIKE, WALK**

**Q29A IS NOT A QUESTION THAT IS ASKED OF RESPONDENTS; IT IS CALCULATED
IF [(GRHTYPE(1,2,3))]:**

CHG_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 CHG_Q29A(1)

IF GRHTYPE(2) (PAST_REG) AND IF DALTDAYS > 0 AND BRALTDAYS = 0, SET CHG_Q29A(1)

IF GRHTYPE(3) (ONE_TIME) AND IF CALTDAYS > 0 AND BHALTDAYS = 0, SET CHG_Q29A(1)

IF GRHTYPE(2) (PAST_REG) AND IF DALTDAYS > 0 AND BHALTDAYS = 0, SET CHG_Q29A(1)

IF GRHTYPE(1) (CURR_REG) and IF CALTDAYS > 0 AND BRALTDAYS > 0 AND CALTDAYS > BRALTDAYS, SET CHG_Q29A(02)

IF GRHTYPE2 (PAST_REG) and IF DALTDAYS > 0 AND BRALTDAYS > 0 AND DALTDAYS > BRALTDAYS, SET CHG_Q29A(02)

IF GRHTYPE3 (ONE_TIME) and IF CALTDAYS > 0 AND BHALTDAYS > 0 AND CALTDAYS > BHALTDAYS, SET CHG_Q29A(02)

IF GRHTYPE2 (PAST_REG) and IF DALTDAYS > 0 AND BHALTDAYS > 0 AND DALTDAYS > BHALTDAYS, SET CHG_Q29A(02)

IF GRHTYPE1 (CURR_REG) AND CALTDAYS > 0 AND BRALTDAYS > 0 AND CALTDAYS <= BRALTDAYS, SET CHG_Q29A(03)

IF GRHTYPE2 (PAST_REG) AND DALTDAYS > 0 AND BRALTDAYS > 0 AND DALTDAYS <= BRALTDAYS, SET CHG_Q29A(03)

IF GRHTYPE3 (ONE_TIME) AND CALTDAYS > 0 AND BHALTDAYS > 0 AND CALTDAYS <= BHALTDAYS, SET CHG_Q29A(03)

IF GRHTYPE2 (PAST_REG) AND DALTDAYS > 0 AND BHALTDAYS > 0 AND DALTDAYS <= BHALTDAYS, SET CHG_Q29A(03)

IF GRHTYPE(1) (CURR_REG) AND CALTDAYS = 0, SET CHG_Q29A(04)

IF GRHTYPE(2) (PAST_REG) AND DALTDAYS = 0, SET CHG_Q29A(04)

IF GRHTYPE(3) (ONE_TIME) AND CALTDAYS = 0, SET CHG_Q29A(04)

IF GRHTYPE(1) (CURR_REG) AND Q29.20 > 0, SET CHG_Q29A(09)

IF GRHTYPE(2) (PAST_REG) AND (Q29.20 > 0 OR Q26.20 > 0), SET CHG_Q29A(09)

IF GRHTYPE(3) (ONE_TIME) AND Q26.20 > 0, SET CHG_Q29A(09)

- 01 Started alt mode
- 02 Increased alt mode
- 03 Continued alt mode
- 04 No alt mode while in GRH
- 09 Unknown – no previous mode reported

IF MORE THAN ONE CHG_Q29A CODE, SELECT IN THIS ORDER:

- 09 Unknown – no previous mode reported
- 01 Started alt mode
- 02 Increased alt mode
- 03 Continued alt mode
- 04 No alt mode while in GRH

IF [CHG_Q29A(01)], CONTINUE TO INSTRUCTIONS BEFORE Q30, AFTER FOLLOWING Q30-Q34 INSTRUCTIONS, SKIP TO Q44A
 IF [CHG_Q29A(02)], SKIP TO INSTRUCTIONS BEFORE Q35, AFTER FOLLOWING Q35-Q38 INSTRUCTIONS, SKIP TO Q44A
 IF [CHG_Q29A(03)], SKIP TO INSTRUCTIONS BEFORE 40, AFTER FOLLOWING Q40-Q44 INSTRUCTIONS, SKIP TO Q44A
 IF [CHG_Q29A(04,09)], SKIP TO Q44A

INSTRUCTIONS BEFORE Q30

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 = 8, 9, 10, 11, 12, 13, OR 19 INSERT using transit
 IF CMCA, DMCA = 14, INSERT biking
 IF CMCA, DMCA = 15, INSERT walking

SHIFT FROM DRIVING ALONE – GRH IMPORTANCE (Current, Past, OTE)

IF [GRHTYPE(1) AND CALTDAYS > 0 AND BRALTDAYS = 0], ASK:

- Q30. You said that you regularly drove alone to work before you registered for GRH. How important was the availability of GRH to your decision to start [INSERT CMCA: carpooling, vanpooling, using transit, biking, walking]? (OPTIONAL.)
- 01 Very important
 - 02 Somewhat important
 - 03 Not at all important
 - 98 Not sure
 - 99 *Left blank*

IF [GRHTYPE(2) AND DALTDAYS > 0 AND BRALTDAYS = 0], ASK:

- Q31. You said that you regularly drove alone to work before you registered for GRH. How important was the availability of GRH to your decision to start [INSERT DMCA: carpooling, vanpooling, using transit, biking, walking]? (OPTIONAL.)
- 01 Very important
 - 02 Somewhat important
 - 03 Not at all important
 - 98 Not sure
 - 99 *Left blank*

IF [((GRHTYPE(3) AND CALTDAYS > 0) OR (GRHTYPE(2) AND DALTDAYS > 0)) AND BHALTDAYS = 0], ASK:

Q32. You said that you regularly drove alone to work before you heard about GRH. How important was the availability of GRH to your decision to start [INSERT CMCA OR DMCA: carpooling, vanpooling, using transit, biking, walking]? (OPTIONAL.)

- 01 Very important
- 02 Somewhat important
- 03 Not at all important
- 98 Not sure
- 99 *Left blank*

SHIFT FROM DRIVING ALONE – LIKELY TO SHIFT WITHOUT GRH (Current, Past, OTE)**IF [(GRHTYPE(1) AND CALTDAYS > 0 AND BRALTDAYS = 0) OR (((GRHTYPE(3) AND CALTDAYS > 0) OR (GRHTYPE(2) AND DALTDAYS > 0)) AND BHALTDAYS = 0)], ASK:**

Q33. If GRH had not been available, how likely would you have been to start [INSERT CMCA OR DMCA: carpooling, vanpooling, using transit, biking, walking] (OPTIONAL.)

- 01 Very likely
- 02 Somewhat likely
- 03 Not at all likely
- 98 Don't know
- 99 *Left blank*

IF [GRHTYPE(2) AND DALTDAYS > 0 AND BRALTDAYS = 0], ASK:

Q34. If GRH had not been available, how likely would you have been to start [INSERT DMCA: carpooling, vanpooling, using transit, biking, walking]? (OPTIONAL.)

- 01 Very likely
- 02 Somewhat likely
- 03 Not at all likely
- 98 Don't know
- 99 *Left blank*

INCREASED ALT MODE USE SINCE GRH – GRH IMPORTANCE (Current, Past, OTE)**IF [GRHTYPE(1) AND CALTDAYS > 0 AND BRALTDAYS > 0 AND CALTDAYS > BRALTDAYS], ASK:**

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

- 01 Very important
- 02 Somewhat important
- 03 Not at all important
- 98 Don't know
- 99 *Left blank*

IF [GRHTYPE(2) AND DALTDAYS > 0 AND BRALTDAYS > 0 AND DALTDAYS > BRALTDAYS], ASK:

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? **(OPTIONAL.)**

- 01 Very important
- 02 Somewhat important
- 03 Not at all important
- 98 Don't know
- 99 *Left blank*

IF [(GRHTYPE(3) AND CALTDAYS > 0 AND BHALTDAYS > 0 AND CALTDAYS > BHALTDAYS) OR (GRHTYPE(2) AND DALTDAYS > 0 AND BHALTDAYS > 0 AND DALTDAYS > BHALTDAYS)], ASK:

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? **(OPTIONAL.)**

- 01 Very important
- 02 Somewhat important
- 03 Not at all important
- 98 Don't know
- 99 *Left blank*

INCREASED ALT MODE USE SINCE GRH – LIKELY TO MAKE CHANGE WITHOUT GRH (Current, Past, OTE)**IF [(GRHTYPE(1) AND CALTDAYS > 0 AND BRALTDAYS > 0 AND CALTDAYS > BRALTDAYS) OR (GRHTYPE(3) AND CALTDAYS > 0 AND BHALTDAYS > 0 AND CALTDAYS > BHALTDAYS) OR (GRHTYPE(2) AND DALTDAYS > 0 AND BHALTDAYS > 0 AND DALTDAYS > BHALTDAYS)], ASK:**

Q38. If GRH had not been available, how likely would you have been to make this change? **(OPTIONAL.)**

- 01 Very likely
- 02 Somewhat likely
- 03 Not at all likely
- 98 Don't know
- 99 *Left blank*

IF [GRHTYPE(2) AND DALTDAYS > 0 AND BRALTDAYS > 0 AND DALTDAYS > BRALTDAYS], ASK:

Q39. If GRH had not been available, how likely would you have been to make this change? **(OPTIONAL.)**

- 01 Very likely
- 02 Somewhat likely
- 03 Not at all likely
- 98 Don't know
- 99 *Left blank*

INSTRUCTIONS BEFORE Q40

Skips for Respondents who used alt modes before GRH and did not increase alt mode days, by registration status

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

IF GRHTYPE = 1 (CURR_REG), USE BRMCA

IF GRHTYPE = 2 (PAST_REG) AND DALTDAYS > 0 AND BRALTDAYS > 0 AND DALTDAYS <= BRALTDAYS, USE BRMCA

IF GRHTYPE = 2 (PAST_REG) AND DALTDAYS > 0 AND BHALTDAYS > 0 AND DALTDAYS <= BHALTDAYS USE BHMCA

IF GRHTYPE = 3 (ONE_TIME), USE BHMCA

IF BHMCA, BRMCA = 5 OR 6, INSERT carpooling

IF BHMCA, BRMCA = 7, INSERT vanpooling

IF BHMCA, BRMCA = 8, 9, 10, 11, 12, 13, OR 19, INSERT using transit

IF BHMCA, BRMCA = 14, INSERT biking

IF BHMCA, BRMCA = 15, INSERT walking

CONTINUED ALT MODE USE SINCE GRH (NO CHANGE) – GRH IMPORTANCE (Current, Past, OTE)

IF [GRHTYPE(1) AND CALTDAYS > 0 AND BRALTDAYS > 0 AND CALTDAYS <= BRALTDAYS], ASK:

Q40. You said that you were [INSERT BRMCA: carpooling, vanpooling, using transit, biking, walking] 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 for your trip to work? **(OPTIONAL.)**

- 01 Very important
- 02 Somewhat important
- 03 Not at all important
- 98 Don't know
- 99 Left blank

IF [(GRHTYPE(2) AND DALTDAYS > 0 AND BRALTDAYS > 0 AND DALTDAYS <= BRALTDAYS)], ASK:

Q41. You said that you were [INSERT BRMCA: carpooling, vanpooling, using transit, biking, walking] 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 for your trip to work? **(OPTIONAL.)**

- 01 Very important
- 02 Somewhat important
- 03 Not at all important
- 98 Don't know
- 99 Left blank

IF [(GRHTYPE(3) AND CALTDAYS > 0 AND BHALTDAYS > 0 AND CALTDAYS <= BHALTDAYS) OR (GRHTYPE(2) AND DALTDAYS > 0 AND BHALTDAYS > 0 AND DALTDAYS <= BHALTDAYS)], ASK:

Q42. You said that you were [INSERT BHMCA: carpooling, vanpooling, using transit, biking, walking] 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 for your trip to work? **(OPTIONAL.)**

- 01 Very important
- 02 Somewhat important
- 03 Not at all important
- 98 Don't know
- 99 Left blank

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

IF [(GRHTYPE(1) AND CALTDAYS > 0 AND BRALTDAYS > 0 AND CALTDAYS <= BRALTDAYS) OR (GRHTYPE(2) AND DALTDAYS > 0 AND BRALTDAYS > 0 AND DALTDAYS <= BRALTDAYS)], ASK:

Q43. If GRH had not been available, how likely would you have been to continue using a type of transportation other than driving alone for your trip to work? **(OPTIONAL.)**

- 01 Very likely
- 02 Somewhat likely
- 03 Not at all likely
- 98 Don't know
- 99 *Left blank*

IF [(GRHTYPE(3) AND CALTDAYS > 0 AND BHALTDAYS > 0 AND CALTDAYS <= BHALTDAYS) OR (GRHTYPE(2) AND DALTDAYS > 0 AND BHALTDAYS > 0 AND DALTDAYS <= BHALTDAYS)], ASK:

Q44. If GRH had not been available, how likely would you have been to continue using a type of transportation other than driving alone for your trip to work? **(OPTIONAL.)**

- 01 Very likely
- 02 Somewhat likely
- 03 Not at all likely
- 98 Don't know
- 99 *Left blank*

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

IF GRHTYPE(1,2,3), ASK:

Q44A. Do you recall receiving or accessing any of the following commute information or assistance services from Commuter Connections, in addition to GRH? **(OPTIONAL.) (RANDOMIZE 01-13. ANCHOR 96. MULTIPLE RESPONSES ACCEPTED)**

- 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, co-working center
- 9 Bicycling information, online bicycle route planning
- 10 Special events information (e.g., Bike to Work Day, Car Free Day)
- 11 CarpoolNow mobile application (real-time ridematching)
- 12 incenTrip trip tracking/points application
- 13 Flextime Rewards incentive program
- 96 Did not receive or access any of these services **(EXCLUSIVE: GREY OUT THIS BOX IF ANY OTHER RESPONSE IS CHECKED)**
- 99 *Left blank*

IF [Q29A(04,09)], SKIP TO Q49

IF [Q44A(96,99)], SKIP TO INSTRUCTIONS BEFORE Q45

IF [(Q44A(01-13)) AND (((GRHTYPE(1) OR GRHTYPE(3)) AND CALTDAYS = 0)], SKIP TO Q49

IF [(Q44A(01-13)) AND (GRHTYPE(2) AND DALTDAYS = 0)], SKIP TO Q49

IF [(Q44A(01-13)) AND (GRHTYPE(2) AND Q29A(01,02,03))], SKIP TO Q44C

IF [(Q44A(01-13)) AND ((GRHTYPE(1) OR GRHTYPE(3)) AND Q29A(01,02,03))], ASK Q44B

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 = 8, 9, 10, 11, 12, 13, OR 19, INSERT use transit

IF CMCA, DMCA = 14, INSERT bike

IF CMCA, DMCA = 15, INSERT walk

Q44B. Was any of the following information or assistance that you received from Commuter Connections more important than GRH to your decision to [INSERT CMCA: carpool, vanpool, use transit, bike, walk]?
(OPTIONAL.) (SHOW ONLY RESPONSES SELECTED IN Q44A AND SHOW Q44B(96))

- 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, co-working center
- 9 Bicycling information, online bicycle route planning
- 10 Special events information (e.g., Bike to Work Day, Car Free Day)
- 11 CarpoolNow mobile application (real-time ridematching)
- 12 incenTrip trip tracking/points application
- 13 Flextime Rewards incentive program
- 96 No, services were not more important than GRH
- 99 *Left blank*

IF [(Q44A(01-13)) AND (GRHTYPE(2) AND Q29A(01,02,03))], ASK:

Q44C. Was any of the following information or assistance that you received from Commuter Connections more important than GRH to your decision to **[INSERT DMCA: carpool, vanpool, use transit, bike, or walk]** **(OPTIONAL.) (SHOW ONLY RESPONSES SELECTED IN Q44A AND SHOW Q44C(96). MULTIPLE RESPONSES ACCEPTED.)**

- 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, co-working center
- 9 Bicycling information, online bicycle route planning
- 10 Special events information (e.g., Bike to Work Day, Car Free Day)
- 11 CarpoolNow mobile application (real-time ridematching)
- 12 incenTrip trip tracking/points application
- 13 Flextime Rewards incentive program
- 96 No, services were not more important than GRH
- 99 *Left blank*

FOR Q45 – Q46, 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 carpool****IF CMCA, DMCA = 7, INSERT vanpool****IF CMCA, DMCA = 8, 9, 10, 11, 12, 13, OR 19, INSERT use transit****IF CMCA, DMCA = 14, INSERT bike****IF CMCA, DMCA = 15, INSERT walk****IF (GRHTYPE(1,3)) (CURR_REG OR ONE_TIME) AND CALTDAYS > 0, ASK Q45:****IF GRHTYPE(2) (PAST_REG) AND DALTDAYS > 0, ASK Q46****OTHERWISE, SKIP TO Q49**

Q45. Did you receive any other commute assistance or benefits, from any source, that influenced your decision to **[INSERT CMCA: carpool, vanpool, use transit, bike, walk]**? **(OPTIONAL.)**

- | | |
|----------------------|----------------|
| 01 Yes | → SKIP TO Q46A |
| 02 No | → SKIP TO Q47A |
| 98 Don't know | → SKIP TO Q47A |
| 99 <i>Left blank</i> | → SKIP TO Q47A |

IF [GRHTYPE(2) AND DALTDAYS > 0], ASK:

Q46. Did you receive any other commute assistance or benefits, from any source, that influenced your decision to **[INSERT DMCA: carpool, vanpool, use transit, bike, walk]**? **(OPTIONAL.)**

- | | |
|----------------------|----------------|
| 01 Yes | |
| 02 No | → SKIP TO Q47A |
| 98 Don't know | → SKIP TO Q47A |
| 99 <i>Left blank</i> | → SKIP TO Q47A |

IF [Q45(01) OR Q46(01)], ASK:

Q46A. What was that assistance or benefit? (OPTIONAL.) (OPEN ENDED.)

99 Left blank

IF [((GRHTYPE(1) OR GRHTYPE(3)) AND (CALTDAYS > 0)) OR (GRHTYPE(2) AND DALTDAYS > 0)], ASK:

Q47A. Were any other factors or circumstances important to your decision? (OPTIONAL.)

- 01 Yes
 02 No → SKIP TO Q49
 98 Don't know → SKIP TO Q49
 99 Left blank → SKIP TO Q49

IF [Q47A(01)], ASK:

Q48. What other factors or circumstances were important to your decision? (OPTIONAL.)

99 Left blank

REFERRAL SOURCES FOR GRH, GRH ADVERTISING RECALL**IF [GRHTYPE(1,2,3)], ASK:**

Q49. How did you hear about the GRH Program? (OPTIONAL.)

99 Left blank

Q50. Have you heard, seen, or read any advertising about GRH? (OPTIONAL.)

- 1 Yes
 2 No → SKIP TO Q59a
 98 Don't know → SKIP TO Q59a
 99 Left blank → SKIP TO Q59a

THOSE WHO HAVE HEARD, SEEN, OR READ ANY GRH ADVERTISING [Q50(01)], ASK:

Q52. Had you registered for GRH before you saw or heard this advertising? (OPTIONAL.)

- 1 Yes → SKIP TO Q59a
 2 No
 98 Don't know
 99 Left blank

THOSE WITH A GRH TYPE WHO DID NOT REGISTER BEFORE SEEING OR HEARING ADVERTISING [Q52(02-99)], ASK:

Q53. Did the advertising encourage you to seek information about GRH or to register for GRH? (OPTIONAL.)

- 1 Yes
 2 No
 98 Don't know
 99 Left blank

SOCIAL MEDIA, TRAVEL APPS

Q59A. With which of the following social networking or social media applications do you currently have an account? Select all that apply. **(OPTIONAL.) (MULTIPLE RESPONSES ACCEPTED.)**

- 1 Facebook
- 2 Twitter
- 3 LinkedIn
- 4 Instagram
- 5 Snapchat
- 6 Nextdoor
- 7 TikTok
- 8 YouTube
- 95 Other **(specify)**
- 96 None of these, I don't use social networking/social media
- 99 *Left blank*

Q59B. Which of the following types of travel or trip applications have you used? Select all that apply. **(OPTIONAL.) (MULTIPLE RESPONSES ACCEPTED.)**

- 1 Traffic alerts (e.g., radio, TV, text)
- 2 Ride-hailing apps (ex., Uber, Lyft, Via)
- 3 Wayfinding apps (ex., Waze, Google maps)
- 4 Trip/fitness tracking apps (ex., Strava, Map My Ride)
- 5 Transit schedule, bus/train arrival mobile app (ex. Next Bus, Next Train, Transit)
- 6 Traveler information display (e.g. screen at workplaces and public locations)
- 7 Bikeshare/dockless bike service app (e.g., Capital Bikeshare, Jump)
- 8 E-scooter service app (e.g., Bird, Skip, Lime, Spin)
- 9 Carshare service apps (e.g., Zipcar, Turo, Free2move, Getaround)
- 95 Other **(specify)**
- 96 None of these, I don't use those types of services or applications
- 99 *Left blank*

USE OF GRH

IF [Q3(01)], AUTOCODE [Q54(01)], THEN SKIP TO Q55

IF [GRHTYPE(1,2,3)] AND Q2(01,02,98,99)], ASK:

Q54. Have you taken a GRH trip since you registered for GRH? **(OPTIONAL.)**

- 01 Yes
- 02 No → **SKIP TO Q59**
- 98 Don't know → **SKIP TO Q59**
- 99 *Left blank* → **SKIP TO Q59**

IF [GRHTYPE(1,2,3)], ASK:

Q55. **[IF Q3(01), 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 Q2(01,02,98,99), 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) (OPTIONAL.)

- 01 Illness (self)
- 02 Illness of family member
- 03 Other personal emergency
- 04 Illness of child
- 05 Child care problem
- 06 Illness of carpool partner
- 07 Unscheduled overtime
- 08 Missed carpool/vanpool
- 95 Other (**specify**)
- 99 *Left blank*

Q56. Was the service satisfactory? **(OPTIONAL.)**

- 01 Yes → **SKIP TO Q58**
- 02 No
- 98 Don't know → **SKIP TO Q58**
- 99 *Left blank* → **SKIP TO Q58**

THOSE WHO FOUND THE SERVICE ON THEIR MOST RECENT GRH TRIP NOT SATISFACTORY [Q56(02)], ASK:

Q57. Why was it not satisfactory? Select all that apply. **(OPTIONAL.) (MULTIPLE RESPONSES ACCEPTED.)**

- 01 Waited too long
- 02 Hard to get approval
- 03 Didn't like taxi/driver
- 95 Other (**specify**)
- 99 *Left blank*

IF [GRHTYPE(1,2,3)], ASK:

Q58. About how long did you wait for your GRH trip provider to arrive? **(OPTIONAL.)**

_____ Minutes **(RANGE 0-300.)**

- 899 I did not use a taxi for this GRH trip
- 999 *Left blank*

Q59. Do you have any suggestions for ways Commuter Connections could improve the GRH program? **(OPTIONAL.)**

Code responses in the following categories in survey post-processing

- 01 Quicker response for GRH ride requests
- 02 Don't require registration
- 03 Allow use of GRH if ridesharing/using transit less than twice per week
- 04 Allow more GRH trips in a year
- 05 Easier/faster approval process
- 06 Wider area for trips
- 95 Other
- 96 No improvement needed
- 98 Don't know
- 99 *Left blank*

DEMOGRAPHICS

ASK EVERYONE:

Now just a few last questions to help us group your answers with those of others. These questions will not be used to identify you in any way.

Q60. Which of the following groups includes your age? **(OPTIONAL.)**

- 01 Under 18
- 02 18 - 24
- 03 25 - 34
- 04 35 - 44
- 05 45 - 54
- 06 55 - 64
- 07 65 or older
- 99 *Left blank*

Q61. Do you consider yourself to be Latino, Hispanic, or Spanish? **(OPTIONAL.)**

- 01 Yes
- 02 No
- 99 *Left blank*

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

- 01 White
- 02 Black or African-American
- 03 American Indian or Alaska Native
- 04 Asian
- 05 Native Hawaiian or Other Pacific Islander
- 95 Other **(specify)**
- 99 *Left blank*

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

- 01 Less than \$20,000
- 02 \$20,000 - \$29,999
- 03 \$30,000 - \$39,999
- 04 \$40,000 - \$59,999
- 05 \$60,000 - \$79,999
- 06 \$80,000 - \$99,999
- 07 \$100,000 - \$119,999
- 08 \$120,000 - \$139,999
- 09 \$140,000 - \$159,999
- 10 \$160,000 - \$179,999
- 11 \$180,000 - \$199,999
- 12 \$200,000 - \$249,999
- 13 \$250,000 or more
- 99 *Left blank*

Q64. What is your gender? **(OPTIONAL.)**

- 1 Female
- 2 Male
- 3 Other
- 98 Prefer not to answer
- 99 *Left blank*

Q65. Commuter Connections is offering a drawing for five \$50 Amazon gift cards. If you would like to participate in the drawing for one of these gift cards, please provide your name and email address on the next screen. Please be assured that we will not sell or use your information for anything other than the drawing. Would you like to participate in the drawing? **(OPTIONAL.)**

- 01 Yes
- 02 No → **SKIP TO END**
- 99 *Left blank* → **SKIP TO END**

IF [Q65(01)], ASK:

Q66. Please provide your name and email address so we can contact you if you are one of the five winners.
(OPTIONAL.)

First Name:

Last Name:

Email Address:

- 98 I've changed my mind; I do not want to participate in the drawing.

EVERYONE:

END

Please click on "SUBMIT" to submit your responses.

PAGE FOLLOWING SUBMIT BUTTON

Thank you for submitting your responses. Your input is very important to us.

If you would like more information on commuting options, click this Commuter Connections logo. It will direct you to the Commuter Connections website.

www.commuterconnections.org

APPENDIX B

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 Baltimore metropolitan region and St. Mary's County Regional Guaranteed Ride Home (GRH) program. The Metropolitan Washington Council of Governments (COG) is overseeing this survey on behalf of *Commuter Connections* and the Maryland Department of Transportation and Maryland Transit Administration. I'm writing to request your participation.

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

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

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

Sincerely,

Nicholas W. Ramfos
Director, Commuter Connections

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

Dear Sir/Madam:

Commuter Connections is conducting a brief survey of people who have used and/or registered with the Baltimore metropolitan region and St. Mary's County Regional Guaranteed Ride Home (GRH) program. The Metropolitan Washington Council of Governments (COG) is overseeing this survey on behalf of *Commuter Connections* and the Maryland Department of Transportation and Maryland Transit Administration. 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. It will take just a few minutes to complete.

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

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

Sincerely,

Nicholas W. Ramfos
Director, Commuter Connections

Internet Survey for Inactive 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 Baltimore metropolitan region and St. Mary's County Regional Guaranteed Ride Home (GRH) program. The Metropolitan Washington Council of Governments (COG) is overseeing this survey on behalf of *Commuter Connections* and the Maryland Department of Transportation and Maryland Transit Administration. I'm writing to request your participation.

Shown below is the internet link that will take you directly to the survey. It will take just a few minutes to complete.

[Survey Link](#)

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

Sincerely,

Nicholas W. Ramfos
Director, Commuter Connections

APPENDIX C – DISPOSITION OF FINAL DIALING RESULTS

Dialing Disposition of All Telephone Sample at the Survey Conclusion	Telephone Survey	
	Number	Percent
Interviews Completed by Telephone	44	2.8%
Answering Machine	1,232	77.6%
Callback	118	7.4%
No answer	65	4.1%
Refusal	50	3.1%
Wrong Number	27	1.7%
Disconnected	24	1.5%
Already completed web survey	16	1.0%
Needed Person not Available	8	1.0%
Busy	1	0.1%
Non-Residential	1	0.1%
Terminated	1	0.1%
Fax Modem	1	0.1%
Total	1,588	100.0%
<hr/>		
Total Dialings	1,588	
Average Dialings Per Complete	36.1	

APPENDIX D

Results from 2022, 2019, 2016, and 2013 Surveys

Comparison on Key Questions

Registration Information

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

	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
Current registrant	16%	39%	36%	56%
Past registrant	84%	61%	64%	44%
One-time exception	0%	0%	0%	0%

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

	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
Less than 1 year	0%	11%	10%	28%
1 year	5%	15%	21%	40%
2 years	15%	16%	15%	20%
3 years	15%	14%	11%	4%
More than 3 years	65%	44%	43%	8%

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

	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
<u>Coronavirus Pandemic Reasons</u>				
Working from home full-time	22%	---	---	---
Other pandemic reason (not specified)	20%	---	---	---
Working from home due to pandemic	8%	---	---	---

Program Related Reasons

Forgot, didn't get around to it	10%	23%	24%	14%
Didn't know I had to re-register	4%	14%	24%	12%
Did not receive reminder	4%	---	---	---
Too much effort to use program	2%	7%	2%	2%
Had a problem with registering	2%	7%	1%	6%
Dissatisfied, bad experience	2%	6%	6%	2%

Personal Circumstance Reasons

Never used program	6%	6%	20%	21%
Couldn't CP/VP/use transit 2+ day/week	---	9%	9%	10%
Stopped/changed mode	18%	8%	---	---
Changed job/work hours	8%	15%	7%	7%
Moved to different residence/out of area	4%	5%	6%	5%
Needed car for work/other purpose	---	0%	5%	0%

GRH Information Sources• **How heard about GRH – Percentage of all respondents**

	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
Word of mouth – referral	27%	36%	36%	27%
Employer/employee survey	19%	23%	21%	23%
Other rideshare/transit org	12%	2%	7%	8%
Internet/social media/e-mail	10%	15%	7%	11%
Bus/train sign	4%	9%	5%	11%
Radio	2%	3%	3%	2%
Brochure/promo materials	2%	3%	2%	3%
Advertisement	2%	1%	<1%	<1%
Direct mail/postcard from CC	1%	1%	1%	2%
Bus/train schedule	0%	0%	2%	0%
Commuter Connections (other)	0%	0%	2%	1%
On-site fair/event	0%	3%	2%	0%
Other	1%	2%	4%	6%

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

	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
Heard or saw GRH ad	40%	45%	41%	46%
Registered after hearing ads	24%	27%	24%	28%
Ad encouraged registration	19%	24%	20%	24%

Current Travel Information• **Current mode split – Primary mode**

<u>Current Registrants</u>	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
Drive alone/motorcycle/taxi	0%	2%	1%	1%
Bus	49%	35%	28%	33%
Vanpool	20%	30%	45%	29%
Commuter Rail	11%	15%	10%	11%
Subway/Light rail	6%	9%	10%	9%
Carpool	3%	6%	4%	9%
Bike/walk	5%	2%	1%	7%
Telework	6%	1%	1%	1%

<u>Past Registrants</u>	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
Drive alone/motorcycle/taxi	34%	38%	33%	41%
Bus	15%	22%	23%	24%
Vanpool	6%	4%	18%	13%
Commuter Rail	3%	7%	0%	3%
Subway/Light rail	2%	9%	12%	6%
Carpool	0%	10%	6%	3%
Bike/walk	2%	4%	4%	8%
Telework	38%	6%	4%	2%

- Average length of commute**

	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
Distance (miles)	32.1 mi	32.5 mi	35.3 mi	29.9 mi
Time (minutes)	55 min	54 min	56 min	53 min

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

<u>Pre-GRH</u>	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
Drive alone/motorcycle/taxi	40%	45%	39%	34%
Carpool/Vanpool	14%	12%	17%	16%
Bus	25%	25%	26%	28%
Subway/Light rail	9%	8%	10%	8%
Commuter Rail	9%	6%	5%	7%
Bike/Walk	3%	4%	3%	7%
Telework	0%	%	%	%

<u>During-GRH</u>	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
Drive alone/motorcycle/taxi	6%	6%	4%	5%
Carpool/Vanpool	30%	31%	42%	34%
Bus	38%	35%	31%	33%
Subway/Light rail	5%	10%	11%	9%
Commuter Rail	13%	14%	9%	11%
Bike/Walk	3%	3%	3%	7%
Telework	5%	%	%	%

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

<u>Pre-GRH</u>	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
0 days/week	42%	43%	41%	34%
1 day/week	0%	1%	0%	1%
2 days/week	1%	1%	1%	2%
3 days/week	3%	5%	4%	4%
4 days/week	6%	5%	6%	9%
5 days/week	48%	45%	48%	50%
Average days/week	2.7	2.6	2.8	3.1

<u>During-GRH</u>	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
0 days/week	5%	5%	3%	3%
1 day/week	1%	1%	0%	1%
2 days/week	6%	3%	2%	2%
3 days/week	10%	15%	9%	11%
4 days/week	12%	11%	16%	14%
5 days/week	66%	65%	70%	69%
Average days/week	4.3	4.2	4.5	4.4

Influence of GRH on Commute Pattern Decisions

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

	2022	2019	2016	2013
Started using alternative mode	34%	38%	36%	29%
Increased alt mode use (frequency)	3%	2%	3%	3%
Maintained use of alternative mode	58%	55%	58%	63%
No alt mode “with-GRH”	5%	5%	3%	4%

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

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

	2022	2019	2016	2013
n=	31	86	120	163
Very important	52%	52%	42%	54%
Somewhat important	35%	27%	36%	30%
Not at all important	13%	21%	22%	16%

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

	2022	2019	2016	2013
n=	51	126	151	323
Very important	59%	53%	54%	34%
Somewhat important	29%	31%	25%	32%
Not at all important	12%	16%	21%	34%

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

	2022	2019	2016	2013
n=	30	84	119	163
Very likely	53%	53%	64%	54%
Somewhat likely	27%	38%	25%	32%
Not at all likely	20%	9%	11%	14%

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

	2022	2019	2016	2013
n=	50	123	149	317
Very likely	54%	65%	81%	70%
Somewhat likely	42%	27%	16%	21%
Not at all likely	4%	8%	3%	9%

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

	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
Save money	13%	16%	15%	19%
Save wear and tear on vehicle	6%	4%	6%	6%
Parking issues	6%	4%	3%	0%
Help environment/reduce traffic	4%	4%	0%	7%
Stress/health/exercise	4%	2%	4%	5%
Didn't want to drive	4%	16%	12%	8%
Save time	2%	5%	4%	4%
No longer had a car, don't drive	1%	2%	2%	2%
Changed jobs/work hours	0%	2%	0%	0%
Read/work while commuting	0%	2%	0%	0%
Commute ease/flexibility/convenience	5%	1%	3%	4%
Consistent/reliable	0%	0%	2%	0%
None	61%	55%	60%	52%

Use of and Satisfaction with GRH

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

	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
All respondents	30%	30%	21%	10%
<u>By Registration Status</u>				
- Current registrants	31%	33%	24%	12%
- Past registrants	30%	24%	16%	5%
<u>By Mode Used "During-GRH"</u>				
- Bus	39%	32%	20%	12%
- Carpool/Vanpool (combined)	28%	---	---	---
- Train (combined)	13%	---	---	---
Individual modes reported prior to 2022				
- Vanpool	---	42%	26%	15%
- Carpool	---	36%	---	9%
- Commuter rail	---	31%	14%	12%
- Subway/Light rail	---	0%	13%	0%

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

	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
Illness (self)	47%	27%	29%	40%
Illness of family member	25%	19%	26%	8%
Illness of child	14%	9%	5%	3%
Illness of carpool partner	0%	3%	2%	0%
Unscheduled overtime	7%	20%	27%	26%
Other personal emergency	7%	15%	5%	18%
Missed CP/VP	0%	0%	3%	0%
Other	0%	7%	3%	5%

- **Time waiting for GRH ride provider** – Respondents who took a trip using a taxi/ridehail service

	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
5 minutes or less	3%	14%	11%	5%
6 – 10 minutes	14%	9%	9%	12%
11 – 20 minutes	21%	24%	29%	44%
21 – 30 minutes	17%	30%	19%	10%
31 – 45 minutes	17%	8%	12%	11%
46 or more minutes	28%	15%	20%	18%
Average (minutes)	36	27 min	28 min	27 min

- **Improvements desired to GRH Program (multiple responses permitted)**

	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
None needed	5%	16%	8%	10%
Wider area for trips	5%	1%	2%	2%
Quicker response for ride requests	4%	7%	5%	4%
Easier/faster approval	0%	7%	4%	2%
More advertising/program information	2%	19%	16%	15%
Extend the hours	2%	0%	0%	4%
Relax conditions/supervisor approval	1%	4%	3%	5%
Don't require registration	1%	3%	0%	0%
Use Uber/Lyft in addition to taxi	1%	1%	0%	0%
Notify when time to re-register	0%	5%	5%	3%
Allow more trips per year	0%	3%	1%	2%
Difficult to get/use/return rental cars	0%	0%	4%	0%
Other	6%	9%	10%	11%
Don't know/no suggestions	73%	33%	49%	49%

Demographics

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

<u>Residence</u>	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
Delaware	2%	0%	1%	2%
District of Columbia	1%	2%	1%	2%
Maryland	87%	85%	71%	72%
New Jersey	0%	1%	6%	3%
Pennsylvania	1%	7%	6%	6%
Virginia	6%	4%	15%	14%
Other/Ref	3%	1%	0%	1%

<u>Employment</u>	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
Delaware	0%	0%	0%	0%
District of Columbia	8%	3%	1%	<1%
Maryland	91%	96%	98%	100%
New Jersey	0%	0%	0%	0%
Pennsylvania	0%	0%	0%	0%
Virginia	1%	<1%	1%	<1%
Other/Ref	0%	0%	0%	0%

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

	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
Hispanic	4%	4%	7%	4%
Non-Hispanic White	52%	57%	61%	64%
Non-Hispanic Black	38%	27%	24%	21%
Asian	6%	11%	6%	8%
Other	0%	1%	2%	3%

- **Income** – all respondents

	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
Under \$40,000	11%	9%	8%	9%
\$40,000 – \$79,999	16%	32%	19%	27%
\$80,000 – \$119,999	25%	23%	35%	32%
\$120,000 – \$159,999	26%	22%	24%	20%
\$160,000 - \$199,999	10%	8%	6%	8%
\$200,000 or more	12%	6%	8%	4%

- **Gender** – all respondents

	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
Female	62%	59%	47%	46%
Male	38%	41%	53%	54%

- **Age** – all respondents

	<u>2022</u>	<u>2019</u>	<u>2016</u>	<u>2013</u>
18 – 24	2%	1%	0%	3%
25 – 34	9%	11%	13%	16%
35 – 44	20%	22%	17%	24%
45 – 54	25%	29%	31%	32%
55 – 64	39%	32%	31%	21%
65 or older	5%	5%	8%	4%