National Capital Region
Transportation Planning Board
COMMUTER CONNECTIONS PROGRAM

WASHINGTON DC METROPOLITAN REGION
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 1,370 commuters who currently participate or who have participated in the Commuter Connections Washington Regional Guaranteed Ride Home (GRH) Program operated by the Metropolitan Washington Council of Governments (MWCOG) for commuters who work in the metropolitan Washington region. MWCOG, through the National Capitol Region Transportation Planning Board (TPB), introduced the Commuter Connections GRH Program in 1997 to eliminate one barrier to using alternative modes, commuters' fear of being without transportation in the case of an emergency. The program provides up to four free rides home per year in a taxi, 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 data were weighted to align the survey results with the total population of GRH participants during the evaluation period. The criterion used to weight the survey data was "type" of GRH participant. This variable denotes if the participant is currently registered for GRH or was registered in the past.

Following is a summary of results on the following topics:

- Program participation findings
- 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 one in ten (8%) curent registrants had been registered for one year or less; more than seven in ten (72%) 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 from March 2019 to March 2022. About 85% of commuters in the database in March 2022 had inactive registrations; only 15% were actively registered. This was a substantial difference from 2019, when nearly half (46.5%) 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, 68% of respondents with current registrations in the database correctly identified their status as current/active. The remaining 32% 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 due to the pandemic (24%), working from home full-time (17%), or another coronavirus pandemic reason (12%). The most frequently mentioned program reasons were that the respondents forgot to re-register or hadn't gotten around to it (10%) and that they didn't know they had to re-register (9%). 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.

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) summer 2021, 37% of respondents were working from home/teleworking full-time and 26% teleworked three or four days per week. Only 15% 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 three-quarters had teleworked at least occasionally before the pandemic, frequent telework was far less common. About 16% of respondents teleworked three or more days per week and just 6% teleworked full-time. One-quarter of respondents did not telework at all before the pandemic.
- ***Commute Mode in 2022 for Current Registrants*** – More than one-third (35%) of self-identified current registrants said they primarily teleworked. But 62% primarily used an alternative mode. Bus was the most common alternative mode, used by 22% of current registrants, and two in ten rode a train to work. About two in ten (19%) primarily carpooled or vanpooled. Three percent of current registrants drove alone to work most of their work days. 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 drive alone respondents and primary teleworkers might still be eligible for GRH.
- ***Commute Mode in 2022 for Past Registrants*** – Three-quarters (75%) of self-identified past registrants primarily teleworked and 12% primarily drove alone. About one in ten past registrants

still used an alternative mode most of the time; 9% used transit, 3% carpooled or vanpooled; these respondents were still eligible for GRH, even though they no longer participated in GRH.

- ***Current Primary Mode Excluding Telework*** – If telework is excluded from the current mode distribution, the resulting distribution defines mode use for commuters who traveled most of their workdays to an outside work location. When primary teleworkers was excluded, 96% of current registrants used an alternative mode for their primary mode, with about two-thirds using transit and three in ten using carpool or vanpool. Among respondents who self-reported as past registrants, more than half (52%) who traveled to an outside work location most of their workdays said they still primarily used an alternative mode; 37% used transit and 13% carpool or vanpool.

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 two in ten (23%) respondents started using alternative modes at the time they joined GRH. A small number of respondents (2%) increased the number of days they used alternative modes. The largest share of respondents (72%) 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 one-quarter (26%) of respondents said they primarily drove alone to work before starting GRH. Seven in ten (70%) participants used alternative modes as their primary type of transportation before they joined the program. Four percent primarily teleworked.

- ***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 30 of the total respondents increased the number of days they used alternative modes. The low respondent number is not necessarily indicative of GRH's value for this type of change, however. Nearly all participants who were using an alternative pre-GRH already did so three or four days per week. In other words, a large majority of participants already were using alternative modes nearly full-time.

  But among the small sample of respondents who did increase the number of days they used alternative modes, the results were notable; these respondents increased their alternative mode frequency from 2.5 days to 4.1 days, or about 1.5 days per week increase per respondent.

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

GRH seemed to have very modest impact in retaining respondents who were using an alternative pre-GRH and did not increase their alternative mode use. Only about 10% said they were "not at all likely" to have continued using these modes if GRH were not available. By contrast, 19% of respondents who started using a new alternative mode and 23% who increased alternative mode use said they were not likely to have made the change without GRH.

Four in ten (44%) 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 32% of respondents who started an alternative mode reported a Commuter Connections service that was more important than GRH. One-quarter (25%) of respondents who increased alternative mode use and 22% who maintained alternative mode use, with no changes, cited a service that was more important than GRH.

Implications of Results for Travel and Air Quality Impact Assessment

An important role of the survey was to collect data to support the upcoming Commuter Connections TDM evaluation, scheduled to be performed in the spring of 2023. Several findings have specific implications for the assessment of travel and air quality impacts of GRH. These findings include:

- More than seven in ten (72%) GRH registrants had been participating in GRH, and therefore using alternative modes, for more than three years. Further, the average length of time in GRH was about 47 months. 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 the 2018-2020 evaluation period, into the current 2021-2023 evaluation 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 2% of participants fell into this category. So even though the average increase was 1.5 days per week, the overall impact of their changes will be minimal.
- About one in ten (13%) 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 (75%) of past registrants were teleworking most or all their workdays at the time of the survey. Nearly nine in ten (87%) 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.
- Finally, GRH commuters travel much farther to work than do commuters region-wide. The average one-way distance for GRH respondents was 37.0 miles, considerably farther than the distance of 16.7 miles traveled by the average commuter in the region, as defined by the 2022 regional State of Commute survey. This indicates that alternative mode changes influenced or assisted by GRH reduce a disproportionate number of vehicle trips and VMT in the region.

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. About four in ten (44%) 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 25% of all the GRH respondents interviewed, indicating that GRH advertising informed and encouraged some registrants to join the program.

- The results showed the need for multiple outreach channels. Word of mouth continued to be the predominant method by which respondents learned of GRH (29%), but employer, radio, Internet, other rideshare/transit organizations, and advertisement all were noted by at least 3% of respondents as their first information source about GRH.
- GRH information sources have remained generally stable since 2010, but the data show changing trends for two sources; "work/employer" has increased as a source between 2010 (8%) and 2022 (15%), while radio and Internet have declined. While radio was less important than in the past, it might continue to be a useful marketing tool to reach drive alone commuters and carpool/vanpool riders. Ten percent of respondents who drove alone and 9% of those who carpooled/vanpooled to work pre-GRH mentioned radio as their source of information. This was the primary source of GRH information these registrants, other than word of mouth.

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SECTION 1 INTRODUCTION

This report presents the results of a Guaranteed Ride Home (GRH) survey of 1,370 commuters who currently participate or who have participated in the Commuter Connections Washington Regional Guaranteed Ride Home (GRH) Program operated by the Metropolitan Washington Council of Governments (MWCOG) for commuters who work in the metropolitan Washington region. MWCOG, through the National Capitol Region Transportation Planning Board (TPB), introduced the Commuter Connections GRH Program in 1997 to eliminate one barrier to using alternative modes, commuters' fear of being without transportation in the case of an emergency. The program provides up to four free rides home per year in a taxi, rental car, public transit, or a combination of these modes, in the event of an unexpected personal emergency or unscheduled overtime.

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

- Examine commute and demographic characteristics of commuters participating in GRH.
- Collect data needed to estimate reductions in vehicle trips, vehicle miles traveled, and emissions reducing from commuters' participation in the GRH Program.

This report focuses on the first objective: how the survey was conducted and what results were obtained. The second objective, the estimate of travel and air quality impacts of the program, will be addressed in a spring 2023 evaluation, assessing impacts of GRH and other Transportation Demand Management (TDM) programs administered by Commuter Connections.

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, 2013, and 2010 GRH Surveys – Comparison on Key Questions

SECTION 2 – SURVEY AND SAMPLING METHODOLOGY

Survey Goals

The primary goal of the GRH survey is to examine characteristics of GRH Program participants. Commuter Connections introduced GRH in January 1997. Since that time, Commuter Connections has collected data on GRH applicants through periodic surveys conducted to assess travel and air quality impacts of GRH participants. The 2022 GRH survey is the eighth such survey; previous GRH surveys were conducted in 2001, 2004, 2007, 2010, 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

Sample Selection Process

The set of eligible respondents for this survey included any commuter who registered or participated in the GRH program between March 16, 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 also were designated as duplicate and the older record was removed. At the end of this database cleaning process, the database contained 12,727 records for the survey.

As in past GRH surveys since 2010, 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 shows a summary of the populations for the four sample groups.

Table 1
Sample Frame by Contact Method and GRH Program Status

Sample Group	Population	Percentage
Telephone Administration		
Current (Active) Participants	54	0.4%
Past (Inactive) Participants	769	6.0%
Internet Administration		
Current (Active) Participants	1,701	13.4%
Past (Inactive) Participants	10,203	80.2%
TOTAL – All Groups	**12,727**	**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 were 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 introductory email for these participants, and then 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. These also were prepared and distributed electronically; these emails referenced the link to WBA's server. Copies of the emails can be found in Appendix B. Three reminder emails were sent to commuters who had not yet completed the survey. A total of 241 current participants were interviewed via the Internet site located on COG server. A total of 1,202 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 823 past and current participants who had not provided an email address ("telephone only"). The letter, shown in Appendix B, alerted the recipient that they would receive a telephone call from WBA Research to participate in the survey. Commuter Connections received invalid/undeliverable postal returns for 87 addresses out of the 823 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 18 and May 5, 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 58 completed interviews. Of the completed interviews, 50 were from the telephone only sample group and 8 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 1.1%.[1] An average of 40.1 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 1,501 completed interviews. However, after performing the initial post-processing, 131 interviews of 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 1,370.

[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 data were weighted to align the survey results with the total sample population of GRH participants. The criterion used to weight the survey data was "type" of GRH participant. This variable denotes if the participant was a current or past participant. In previous GRH surveys, 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 134 invalid sample points were removed from the 2022 sample file, for a revised population of 12,593.

An additional adjustment to the sample population was made in 2022 to remove an estimated count of GRH participants who were no longer in the workforce. In 2022, the 131 non-working participants who completed the survey represented 8.7% of the total respondents, a considerably larger share than in the 2019 GRH survey, when non-working respondents accounted for about 1% of the total respondents. Additionally, non-working respondents were concentrated in the past sample group; 10% of respondents in the past group were not working, compared with 3% of respondents in the current group. As it was reasonable to expect similar proportions of non-working GRH participants among those who had not completed the survey, the consultants reduced the past population by 10% and the current population by 3%, for a revised combined population total of 11,476.

Table 2 shows the relationship between the sample and the revised participation group for the weighting variable. The differences between these groups tested as statistically significant, thus were weighted to realign participant responses to the population groups. As anticipated, the sample group contained a higher proportion of current participants and a lower proportion of past participants, when compared to the total respondent group.

Table 2
Comparison of Sample Group and Total Population Distribution

Type of GRH Participant	Sample Group		Adjusted Population	
	n = __	Percentage	n = __	Percentage
Current Participants:	280	20.4%	1,685	14.7%
Past Participants:	1,090	79.6%	9,791	85.3%
Total All Participants	**1,370**	**100.0%**	**11,476**	**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 1,501 interviews from a population of 12,593 (including non-working participants but excluding records with no valid contact option) resulted in a level of confidence of 95% ± 2.5 percentage points for the 2022 GRH survey. Excluding the non-working respondents, the level of confidence is 95% ± 2.5 percentage points (1,370 interviews on an estimated population of 11,476).

For analysis purposes this was statistically comparable to the 95% ± 2.0 percentage points for the 2019 survey and 2016 survey. However, it is useful to note that the total 2022 database population of 11,476

was just 56% of the 2019 database population of 20,416 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 14.7% current and 85.3% past registrants. This represented a large drop in the current registrations from 2019, when current registrations accounted for 46.5% of the total.

This change did not affect the sampling methodology for the 2022 survey and the total of 1,370 completed interviews was sufficient for a level of analysis that was comparable to that from the 2019 survey but the shift in current and past registrations reflects reflect a notable change in the use of the program since 2019.

SECTION 3 SURVEY RESULTS

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

Where relevant, survey results are compared for sub-groups of respondents and against data for past Washington Regional GRH surveys, when these data were available. These comparisons are presented in the appropriate sub-sections. Appendix D 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

In the 2022 survey, more than half (57%) of respondents lived in Virginia (Table 3). About four in ten (38%) lived in Maryland. Two percent of respondents lived in the District of Columbia and 3% lived in another state. The distribution by work state was considerably different. About six in ten (59%) respondents worked in the District of Columbia. Two in ten (22%) respondents worked in Virginia and 19% worked in Maryland.

Table 3
Home and Work States
(2016 n = 2,171, 2019 n = 2,066, 2022 n = 1370)

State	Home State			Work State		
	2016	2019	2022	2016	2019	2022
District of Columbia	2%	2%	**2%**	64%	63%	**59%**
Maryland	40%	41%	**38%**	15%	16%	**19%**
Virginia	55%	55%	**57%**	21%	21%	**22%**
Other	3%	2%	**3%**	0%	0%	**0%**

Comparison of results from 2016, 2019, and 2022 shows that the home area distribution has remained stable over the past six years, but the percentages of respondents who worked in Maryland increased slightly while the share who worked in the District of Columbia has declined slightly.

Top home Maryland and Virginia locations for 2022 GRH registrants, each with at least 4% of total respondents, included:

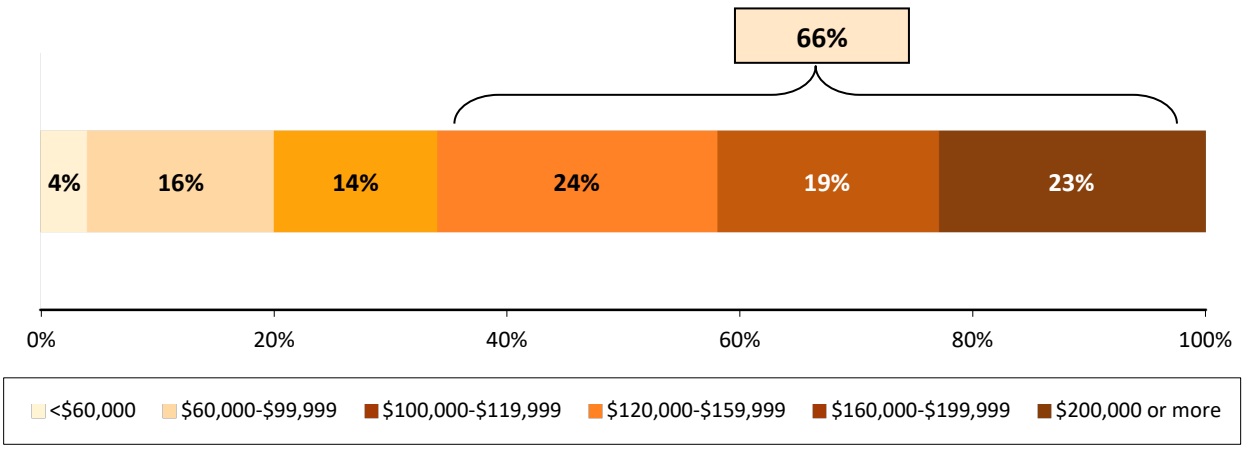
Virginia Counties	Percentage	Maryland Counties	Percentage
Prince William County	15%	Montgomery County	8%
Fairfax County	11%	Frederick County (MD)	6%
Stafford County	9%	Charles County	5%
Loudoun County	8%	Anne Arundel County	4%
Fredericksburg	7%	Howard County	4%

Demographics

The survey asked respondents four demographic questions: gender, income, age, and race/ethnicity. Respondents were about evenly divided into male (54%) and female (46%) respondents. Details of other characteristics are presented below.

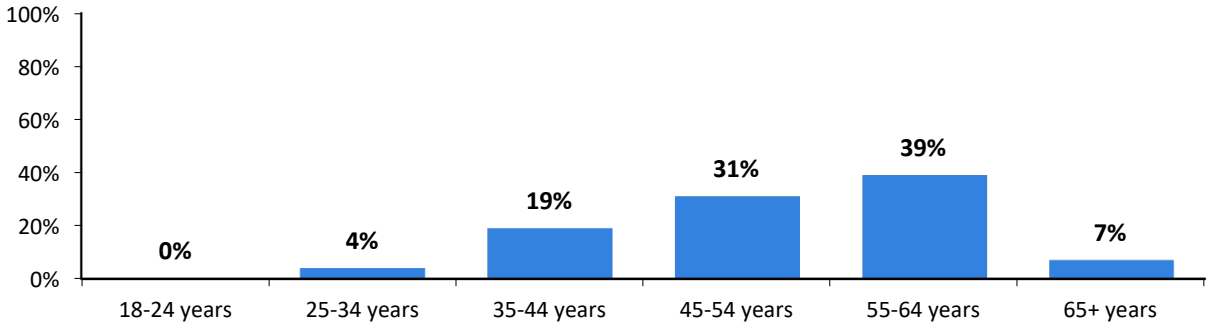
Income – Figure 1 presents the distribution of respondents' annual household income. GRH participants had quite high annual household incomes. Two-thirds (66%) of respondents had household incomes of $120,000 or more and 23% had incomes of $200,000 or more.

Figure 1
Annual Household Income
(n = 1,189)



Age – GRH participants were clustered in the middle and older age brackets (Figure 2). Half (50%) were between the ages of 35 and 54 years old and 46% were 55 years or older. Only 4% were under 35 years.

Figure 2
Respondent Age Distribution
(n = 1,337)



Race/Ethnicity – As shown in Table 4, Non-Hispanic Whites and Non-Hispanic Blacks represented the two largest race/ethnicity group categories of GRH survey respondents, 62% and 20% respectively. Asians accounted for about one in ten and Hispanics represented 6% of respondents.

Table 4
Race/Ethnicity
(n = 1,273)

Race/Ethnicity	Percentage
Non-Hispanic White	62%
Non-Hispanic Black	20%
Asian	9%
Hispanic	6%
Other/Mixed race	3%

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. One-third (34%) of respondents said they were currently registered (Table 5). The remaining two-thirds (66%) said they had been registered in the past, but were not participating at the time of the survey. No respondents self-identified as one-time exception users.

Table 5
Registration Status as Defined by Respondent (During Survey Interview)

(n = 1,370)

Registration Status	Percentage
Current registrants	34%
Past registrants	66%
One-time exceptions	0%

A major function 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, 68% of respondents whose database status was current/active correctly identified their status as current (Table 6). But 32% 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 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 Perceived by Respondent	
	Current	Past
2022 GRH Survey		
Current registrants (n = 280)	68%	**32%**
Past registrants (n = 1,087)	**28%**	78%
2019 GRH Survey		
Current registrants (n = 957)	95%	**5%**
Past registrants (n = 1,109)	**60%**	40%

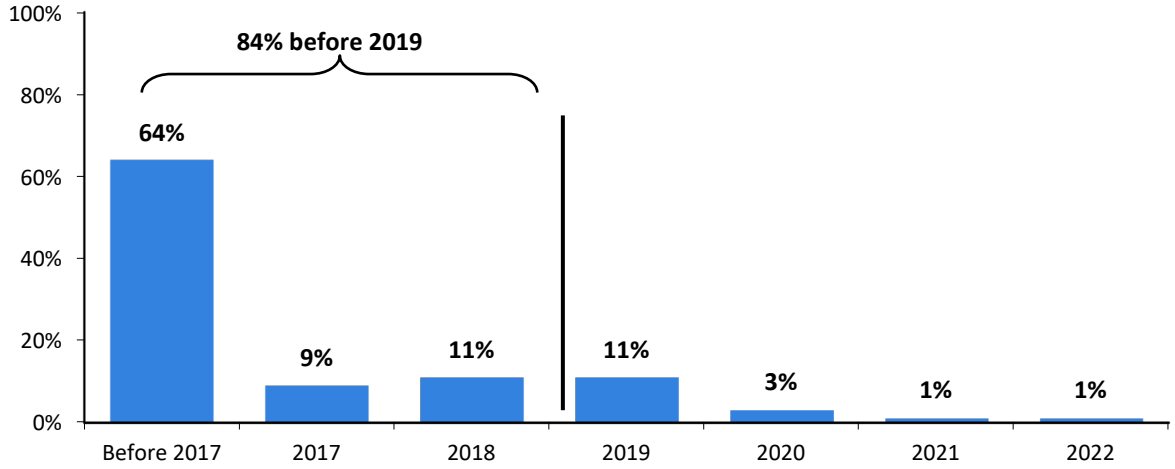
Conversely, three in ten (28%) respondents whose registrations had expired thought they were still registered. It is possible these respondents did not realize they needed to re-register each year, so assumed they were still eligible for the program. These respondents were treated as "currently registered" 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, nearly all (95%) respondents whose database status was current/active correctly identified their status as current, but six in ten (60%) respondents whose registration had expired thought they were still registered.

Year of Registration

Respondents were asked the year they first joined the program. The GRH Program was implemented in 1997, but has continued to attract new participants. Respondents in this survey were selected from those who had registered or re-registered between March 2019 and March 2022. More than eight in ten (84%) surveyed respondents said they first registered before 2019 (Figure 3). About one in ten (11%) registered in 2019. Only 3% of all respondents said they registered in 2020 and 1% in 2021. One percent of respondents said they registered in 2022, but the survey was conducted in April and May 2022, thus registration figures for 2022 included only registrants who joined GRH between January 1 and March 15.

Figure 3
Year First Registered for GRH Program
(n = 1,198, Excludes respondents who count not recall year)



The large drop-off in registrations in 2020 and 2021 are certainly related to the coronavirus pandemic, when many employers paused onsite operations and shifted workers to work from home/telework. Surveys conducted by MWCOG and other organizations during 2020 and 2021 have shown that as many as 65% of all regional workers were working from home in 2020 and the 2022 regional State of the Commute (SOC) survey found that more than four in ten workers were continuing 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 13% of the total respondents surveyed could not remember when they registered. They are not included in the base for the distribution shown in Figure 3, however, it is likely many of these respondents would have registered at least several years ago.

Participation in Other GRH Programs

Two percent of respondents (28 respondents) indicated they had participated in another GRH program prior to joining Commuter Connections' program. Eighteen respondents said they participated in a program offered by their employer, six said the program was offered by a "county or city government," one respondent said VRE offered the program, and three respondents did not recall the sponsor.

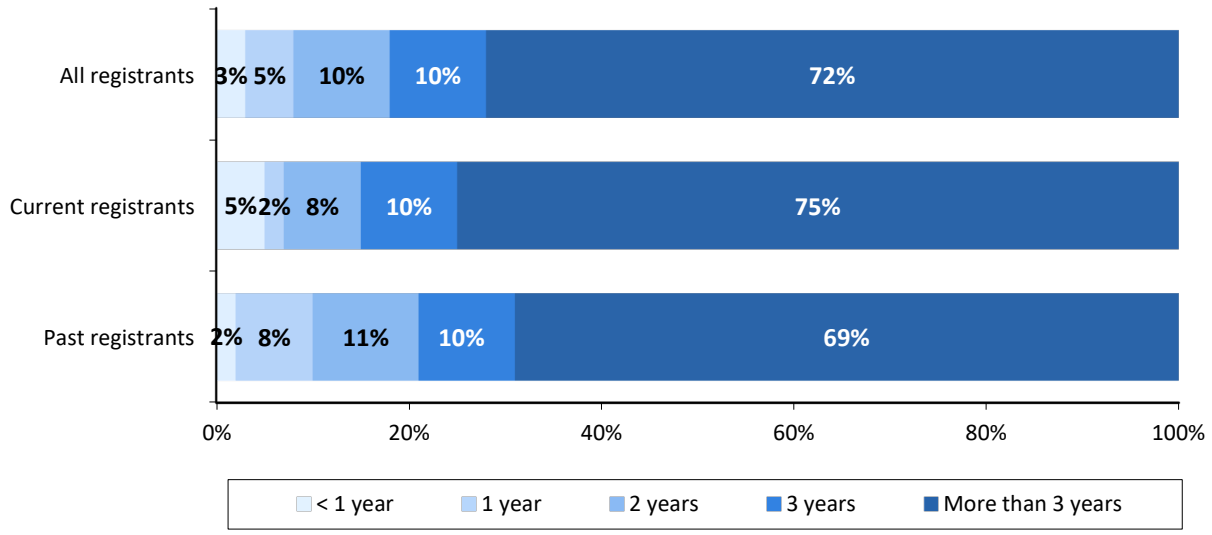
Time Participating in GRH

More than nine in ten (92%) respondents participated (or had been participating) in the GRH program for two or more years and 72% had been participating for more than three years (Figure 4). On average, respondents were registered for about 47 months.

The GRH duration for respondents who self-identified as current shows a slightly longer duration than for past registrant. Three-quarters (75%) of current/active registrants had been participating in GRH for more than three years, compared with 69% of past registrants. But the average lengths of time in the program were similar; current/active registrants had participated for an average of 48 months and past registrants participated for an average of 46 months.

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

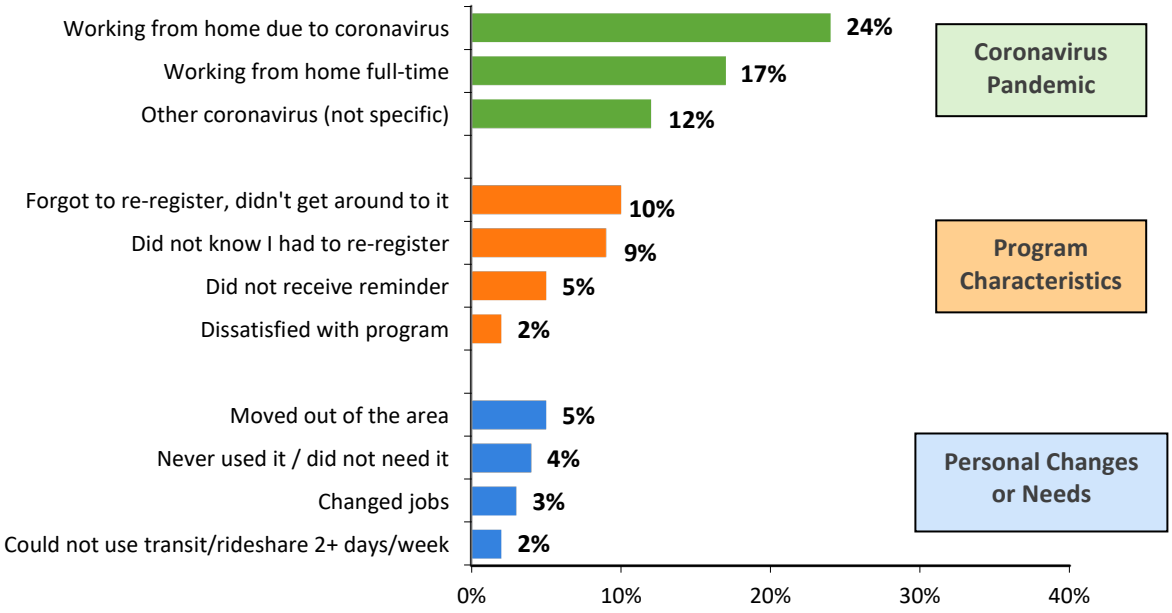
(All registrants n = 908, Current registrants n = 433, Past Registrants n = 475)



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 reasons associated with personal circumstances of the registrant.

Figure 5
Reasons Past Registrants Did Not Re-Register
(n = 549)



Coronavirus Pandemic – The overwhelming reason for not re-registering was a commute change related to the coronavirus pandemic. More than half of all respondents cited this reason; 24% said they were working from home due to the coronavirus pandemic, 17% volunteered that they were now working from home full-time, and 12% simply gave coronavirus pandemic as the reason, without giving additional details. It seems likely that most respondents in the second groups were working from home due to the pandemic and that respondents in the third 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 – The 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 9% of respondents. These were also common reasons mentioned in past GRH surveys, suggesting that registrants need to be reminded to re-register. Five percent said they did not receive a reminder and 2% said they were dissatisfied with the program.

Personal Changes – Small percentages of respondents mentioned personal reasons that were unrelated to the program. Five percent said they did not re-register because they moved out of the area and 3% changed jobs. Four percent did not re-register because they had never used the program and presumably felt it would not be necessary in the future. Two percent were no longer eligible for the program because they had stopped using alternative modes and were driving to work.

GRH Information Sources

How Heard About GRH

Commuters heard about the GRH Program from various sources (Table 7). About three in ten (29%) noted word of mouth/referrals as their source of information. Fifteen percent learned about GRH from their employer and 7% said they heard about GRH through a radio announcement or advertisement. Fewer than one in twenty noted each other source. Five percent of respondents cited Commuter Connections, but it is important to note that Commuter Connections advertises GRH on the radio and Internet, on social media, and through many of the other sources listed, thus, Commuter Connections likely is the source for many respondents, even if they did not specifically recall it as such.

Table 7
How Respondents Learned About GRH

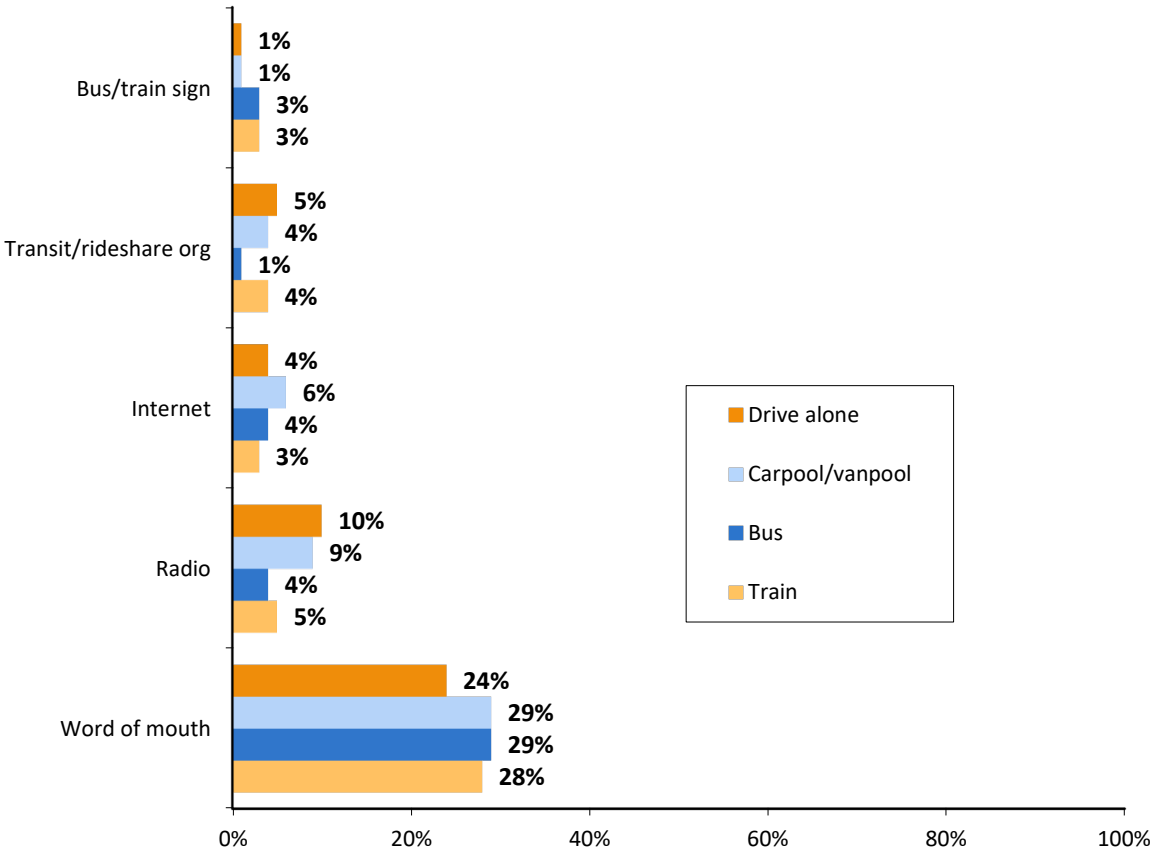
Information Source *	2010 GRH (n=1,032)	2013 GRH (n=2,374)	2016 GRH (n=2,171)	2019 GRH (n=2,066)	2022 GRH (n=1,149)
Word of mouth – referral	35%	31%	30%	30%	**29%**
At work/employer	8%	9%	9%	12%	**15%**
Radio	12%	12%	10%	9%	**7%**
Internet	14%	9%	11%	8%	**4%**
Other rideshare/transit organization	2%	5%	4%	4%	**4%**
Advertisement	3%	2%	4%	2%	**3%**
Commuter Connections (other)	2%	3%	4%	3%	**3%**
Direct mail/postcard from CC	3%	2%	<1%	3%	**2%**
Bus/train sign	4%	5%	4%	5%	**2%**
Brochure/promo materials	4%	3%	3%	3%	**2%**
Other	2%	5%	3%	3%	**3%**
Don't know	13%	20%	20%	21%	**11%**

*Multiple responses permitted.

In 2022, 11% of respondents did not remember how they learned of GRH and 16% of respondents left the question blank. As previously noted, almost two-thirds 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 2010, but the data show changing trends for two sources; "work/employer" has increased as a source between 2010 (8%) and 2022 (15%), while radio and Internet have declined.

GRH Referral Source by Pre-GRH Mode – GRH sources differed slightly by the commute modes respondents used before joining GRH (pre-GRH mode) (Figure 6). Respondents who used alternative modes pre-GRH mentioned word of mouth at a higher rate (28%-29%) than did respondents who drove alone before joining GRH (24%). Registrants who drove alone or carpooled/vanpooled before GRH were more likely to mention the radio as their source (Drive alone 10%, Carpool/vanpool 9%), compared with only 4% to 5% of transit riders.

Figure 6
How Respondents Learned About GRH by Pre-GRH Primary Mode
(Drive alone n = 330, Carpool/vanpool n = 245, Bus n = 302, Train n = 355)



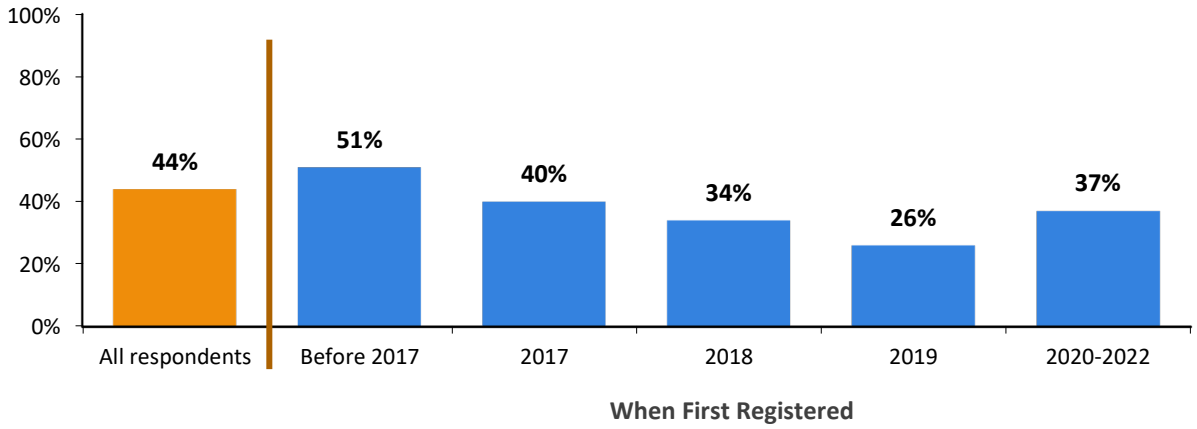
Larger shares of transit riders mentioned seeing a sign on a bus or train or at a train station than did commuters who drove alone or rode in a carpool/vanpool. Bus riders were least likely to hear about GRH from a transit or rideshare organization; only 1% mentioned this source, compared with 4% to 5% of respondents who used other modes.

GRH Advertising

Heard or Saw GRH Advertising – When respondents were asked if they had heard, seen, or read any advertising about GRH, 44% of respondents said they recalled GRH advertising, a notable drop from the percentage who recalled advertising in the 2019 (58%), 2016 (58%) and 2013 (57%) GRH surveys.

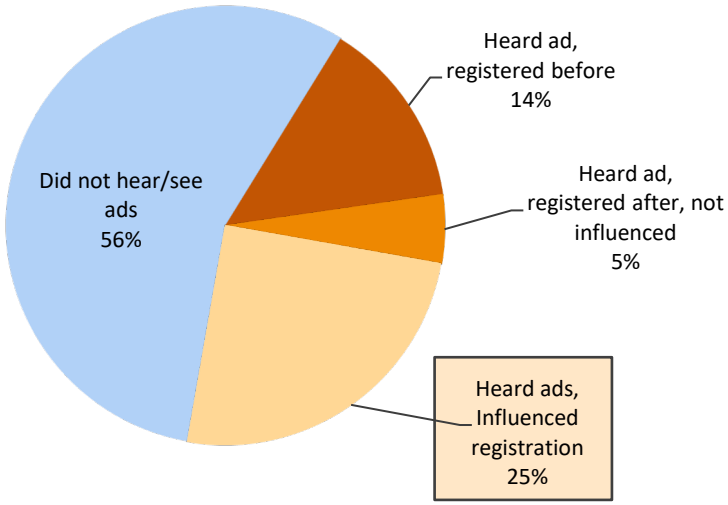
Recall of GRH advertising was highest among respondents who registered before 2017 (Figure 7). Half (51%) of these respondents said they had heard or seen advertising, while recall percentages declined among more recent registrants. The declining trend appears to have reversed for respondents who registered between 2020 and 2022, but the sample size for this group is small and the 2020-2022 recall of 37% is statistically the same as the 26% recall reported for respondents who registered in 2019.

Figure 7
Heard or Saw GRH Advertising – All Respondents and by Year Registered for GRH
(All n = 1,370, Before 2017 n = 775, 2017 n = 112, 2018 n = 129, 2019 n = 122, 2020-2022 n = 60)



Influence of Ads on GRH Registration – The 44% of respondents who said they had seen or heard GRH advertising were asked if they had registered for GRH before they encountered the ads and if the ads had influenced them to register for GRH. Figure 8 shows these results, combined with the results for those who had not seen the ads. This chart thus summarizes ad exposure and ad influence.

Figure 8
GRH Advertising – Ad Exposure and Ad Influence
(n = 1,370)



More than half (56%) of respondents did not see or hear the ads at all. Fourteen percent saw or heard ads but had already registered for GRH. And 5% said they saw or heard the ads before they registered but the ads had not influenced them. These groups, in total, represented registrants who were not influenced by the advertising (75%).

The remaining 25% of respondents said they saw or heard the ads before they registered and that the advertising had encouraged them to register. This indicates the advertising was instrumental in both informing and persuading a portion of 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

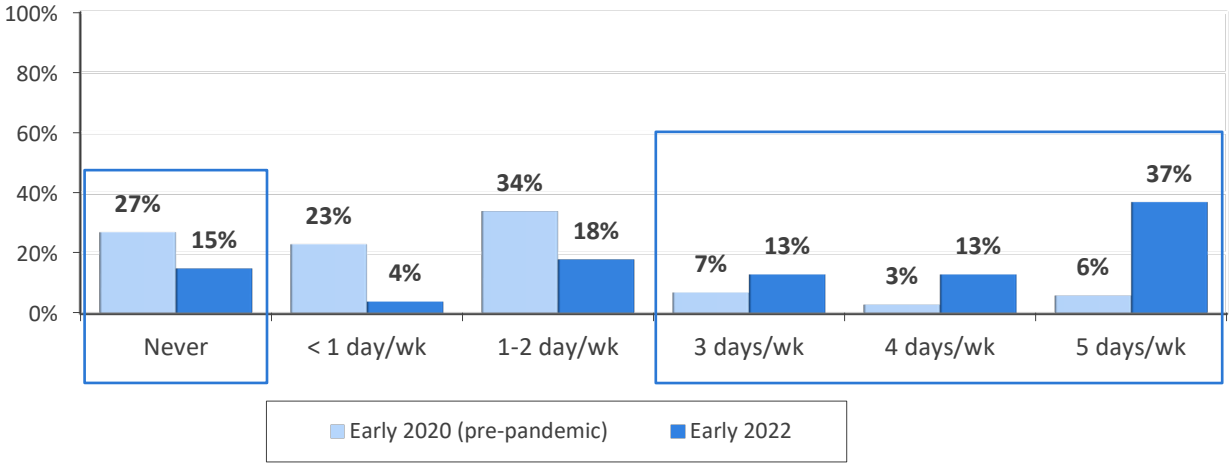
Nearly all (98%) respondents worked full-time. But 20% worked a compressed schedule in which they worked a full-time schedule in fewer than five days; 16% worked a 9/80 compressed schedule, with one weekday off in alternate weeks and 4% worked a 4/40 schedule, with one weekday off each week. These respondents were classified as working a five-day week for purposes of commute mode, with either one or one-half weekdays off each week.

Current 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 9, half of respondents were teleworking four or more days per week at the time of the survey and 37% were teleworking full-time. Only 15% were not teleworking at all.

Figure 9 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 16% of respondents teleworked three or more days per week and just 6% teleworked full-time. One-quarter of respondents did not telework at all before the pandemic.

Figure 9
Telework Frequency – Early 2022 and Early 2020 (Pre-pandemic)
(Early 2020 (Pre-pandemic) n = 1,370, Early 2022 n = 1,370)



Respondents who teleworked at least some workdays before the pandemic reported higher telework use during the pandemic; among respondents who teleworked in February 2020, 73% 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; 63% were teleworking at least one day per week and 36% were teleworking three or more days per week.

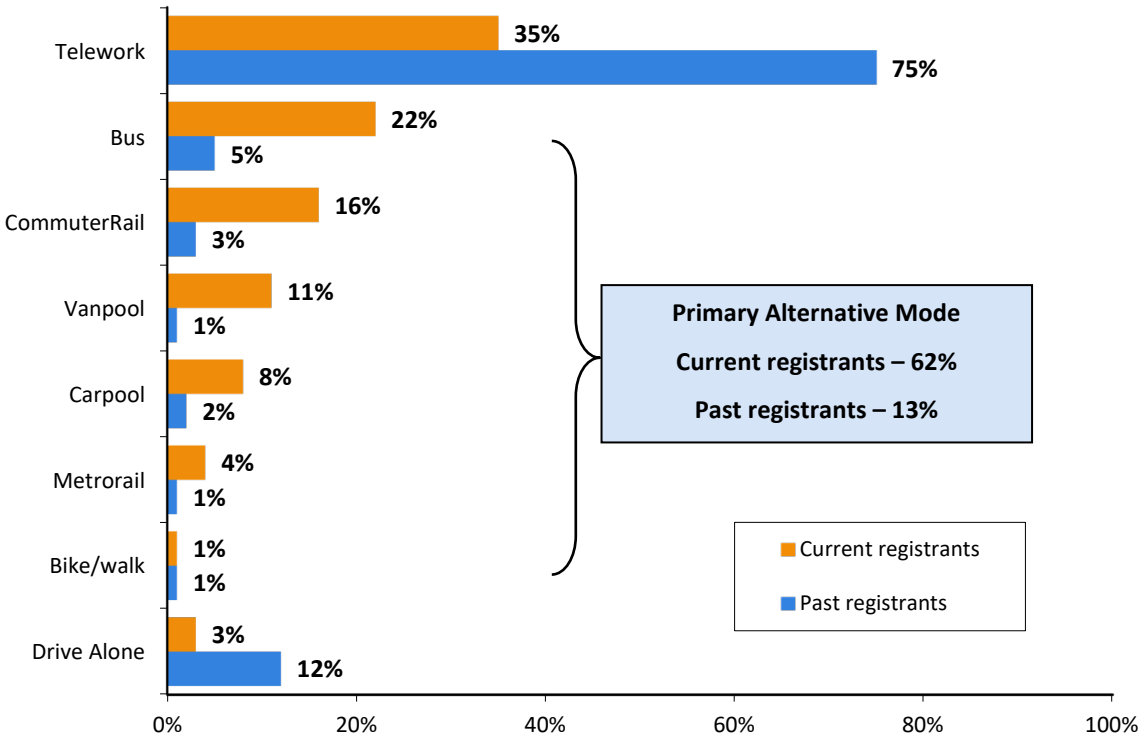
Current Commute Mode

All respondents were asked about use of various commute modes for a typical work week, Monday through Friday. Figure 10 shows the percentages of respondents who used each mode as their primary mode (mode used most days of the week). The figure includes seven traditional "on the road" mode groups for travel to job locations outside the home: drive alone, bus, commuter rail, Metrorail, carpool, vanpool, and bike/walk. The figure also includes the mode share for telework. This is not actually a travel mode but is included 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 – Telework was the most common primary mode for current registrants; 35% of self-identified current registrants said they primarily teleworked. But 62% primarily used an alternative mode. Bus was the most common alternative mode, used by 22% of current registrants. Commuter rail, vanpool, and carpool were the primary modes for 16%, 11%, and 8% of current registrants, respectively. Four percent primarily used Metrorail and 1% primarily biked or walked to work.

Three percent of current registrants drove alone to work most of their work days. 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 drive alone respondents and 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 or driving alone 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.

Figure 10
Current Primary Modes by Registration Status (Self-identified in Interview)
(Current Registrants n = 497, Past Registrants n = 873)



Past Registrants – Past registrants were more likely than current registrants to report both telework and driving alone as their primary mode. Three-quarters (75%) of self-identified past registrants primarily teleworked and 12% primarily drove alone. About one in ten 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. Five percent rode a bus, 3% rode commuter rail, and 1% rode Metrorail. Two percent carpooled, 1% vanpooled, and 1% 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.

Two-thirds (65%) of 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). The remaining 35% did use one or more of the modes; 23% occasionally used transit and 15% occasionally carpooled to work. Full-time teleworkers presented a very different potential use profile, with 87% saying they would be using alternative modes if they were commuting to an outside work location. Two-thirds(65%) said they would be riding transit and about two in ten said they would be carpooling (19%) or vanpooling (17%).

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 = 176)	65%	15%	3%	23%	2%
Telework (n = 506)	13%	19%	17%	65%	9%

Current Primary Mode Excluding Telework – Because both the current and past registrant mode distributions were so strongly skewed toward telework, Table 9 presents mode use results when primary telework was excluded. This shows the distribution of mode use for commuters who traveled most of their workdays to an outside work location. The "telework" column repeats the telework primary mode percentages from Figure 10; 35% for current registrants and 75% for past registrants. When these primary teleworkers were excluded, 96% of current registrants used an alternative mode for their primary mode, with about two-thirds using transit and three in ten using carpool or vanpool. Among respondents who self-reported as past registrants, more than half (52%) said they still primarily used an alternative mode; 37% used transit and 13% carpool or vanpool.

Table 9
Current Primary Mode by Registration Status (Self-identified in Interview)

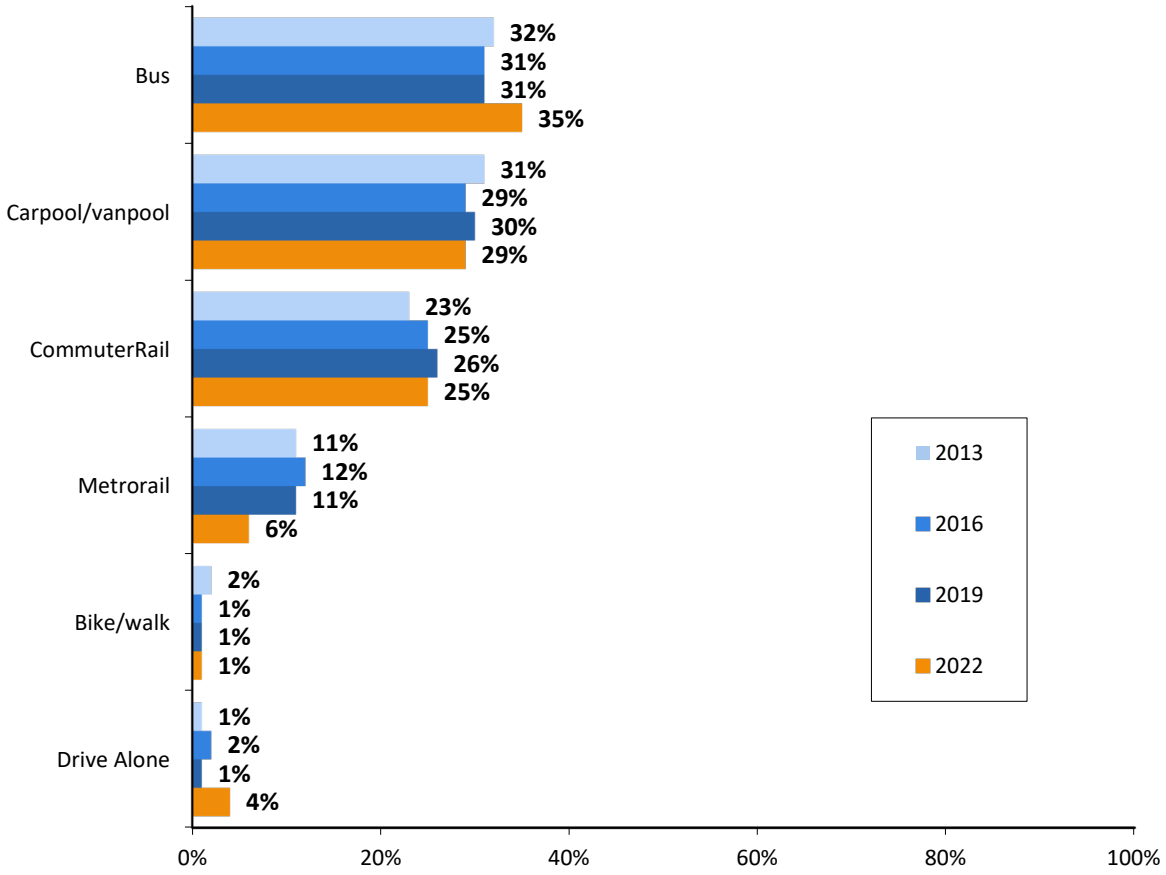
(Shading indicates statistically higher percentages of mode use)

Registration Status	Telework	Primary Commute Mode (Excluding Telework)			
		Drive Alone	Carpool/ Vanpool	Transit	Bike/ Walk
Current Registrants (n = 497)	35%	4%	29%	66%	1%
Past Registrants (n = 873)	75%	48%	13%	37%	2%

Current Mode, 2013 to 2022 – Figure 11 presents mode split for current GRH registrants for the years 2013 through 2022. Prior to 2022, when 35% of current registrants reported telework as their primary mode, telework accounted for a very small share of GRH registrants' primary modes; 2013 (2%), 2016 (4%), 2019 (5%). For a clearer comparison of alternative mode use across these years, Figure 11 presents current primary mode percentages with primary telework excluded.

Excluding telework, the share of alternative mode use has changed only slightly over the past nine years. About three in ten current registrants have used carpool/vanpool as their primary mode and six in ten have used transit. Within the transit mode group, use of Metrorail fell slightly in 2022 and use of bus rose slightly, but the changes were small and only the Metrorail change (11% in 2019 to 6% in 2022) was a significant difference.

Figure 11
Primary Commute Modes (Excluding Telework) by Current GRH Registrants – 2013 to 2022
(2013 n = 1,743, 2016 n = 1,611, 2019 n = 1,490, 2019 n = 1,566, 2022 n = 325)



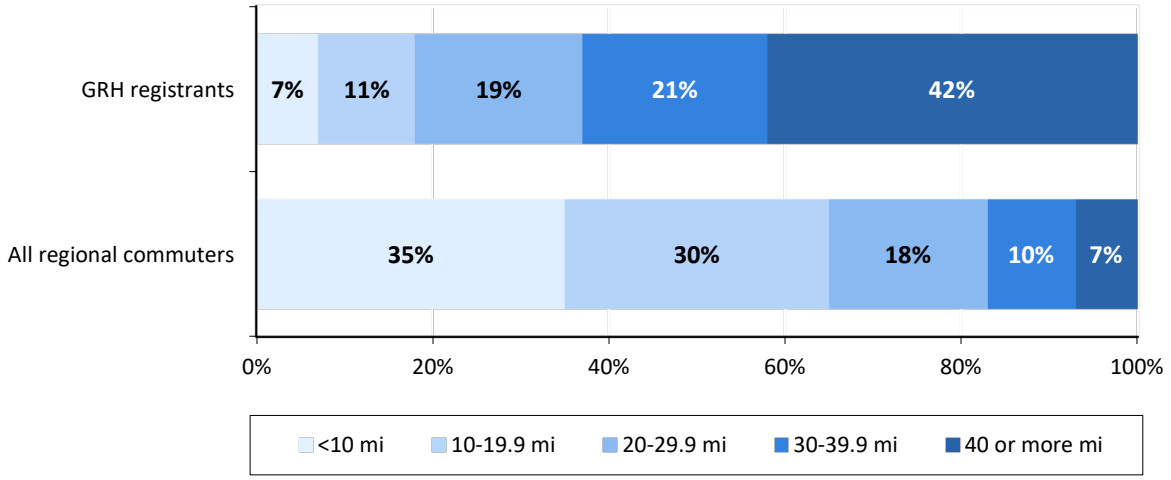
Pool Occupancy

The average number of occupants in GRH carpools and vanpools was 2.8 and 7.4 people, respectively. Carpool occupancy dropped from 2019, when carpoolers reported an average occupancy of 3.1 people. Vanpool occupancy also fell; the 7.4 occupants was a drop from 8.6 in 2019, continuing a gradual slide from 9.5 in 2016, and 10.4 in 2013.

Commute Length

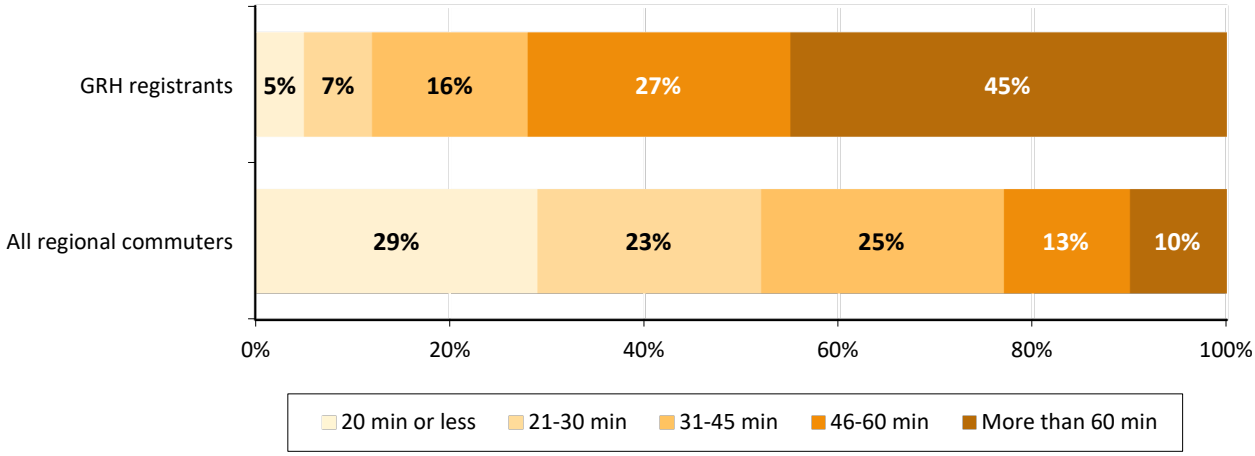
Commute Miles – Respondents who were not teleworking full-time were asked about the one-way distance from home to work. GRH registrants had a wide range of commute distances, from less than one mile to more than 120 miles, with an average one-way distance of 37.0 miles. This was considerably longer than the 16.7 miles traveled by the average commuter in the Washington metro region, as defined by the 2022 regional State of Commute survey. More than six in ten (63%) GRH respondents commuted 30 or more miles to work, compared with 17% of all regional commuters (Figure 12).

Figure 12
Commute Distance (miles) - GRH Registrants and All Regional Commuters
(GRH registransts n = 834, All regional commuters (2022 SOC survey) n = 7,291)



Commute Time – GRH participants commuted, on average, about 66 minutes one way. This was much longer than the 37-minute average commute time for all regional commuters. The longer-than-average commute time is due in part to their longer-than-average travel distance, but also is likely influenced by their substantial use of carpool, vanpool, and transit. These modes typically take longer per mile than does driving alone. Seven in ten (72%) GRH participants commuted more than 45 minutes each way to work (Figure 13). Nearly half (45%) commuted more than an hour. Only 10% of all regional commuters traveled more than 60 minutes to work.

Figure 13
Commute Travel Time (minutes) – GRH Registrants and All Regional Commuters
(GRH registransts n = 1,928, All regional commuters (2022 SOC survey) n = 5,088)



Primary Roads Used on the Trip to Work

The 2022 GRH survey also included a question to identify the major Interstate and state roadways that commuters used to get to work. Results from this question will primarily be used for MWCOG performance management and planning purposes and in the TDM analysis to explore the role that Commuter Connections TDM program elements such as GRH play in mitigating congestion on specific roads in the MWCOG region.

Commute Patterns Before and During Participation in GRH

The GRH survey was conducted in part to determine if and how commuters' participation in GRH had affected their commute patterns, 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 14 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, Metrorail, 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 5% of respondents said they were not living or working in the 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.

More than one-quarter (26%) of respondents primarily drove alone pre-GRH. The drive alone mode share dropped to just 4% for the "during-GRH" period and the shares of respondents primarily using alternative modes (transit, carpool/vanpool, bike/walk) increased from 70% to 80%. Carpool/vanpool use increased from 19% pre-GRH to 26% during-GRH and the share of respondents using commuter rail grew from 16% to 20%. Metrorail use fell slightly from 11% to 8%. Bus use and bike/walk use remained about the same from the pre-GRH to the during-GRH period.

The other notable change between the pre-GRH and during-GRH period was an apparent increase in the share of respondents who said they primarily teleworked while they were registered for GRH. Only 4% of respondents said they primarily teleworked (3+ days per week) before they joined GRH but 16% said they primarily teleworked while they participated in GRH. Further analysis found that when asked how many days they were teleworking in early 2020, just before the start of the pandemic, most (74%) 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.

Figure 14
Primary Modes Used Pre-GRH and During-GRH
(Pre-GRH n = 1,298, During-GRH n = 1,369)

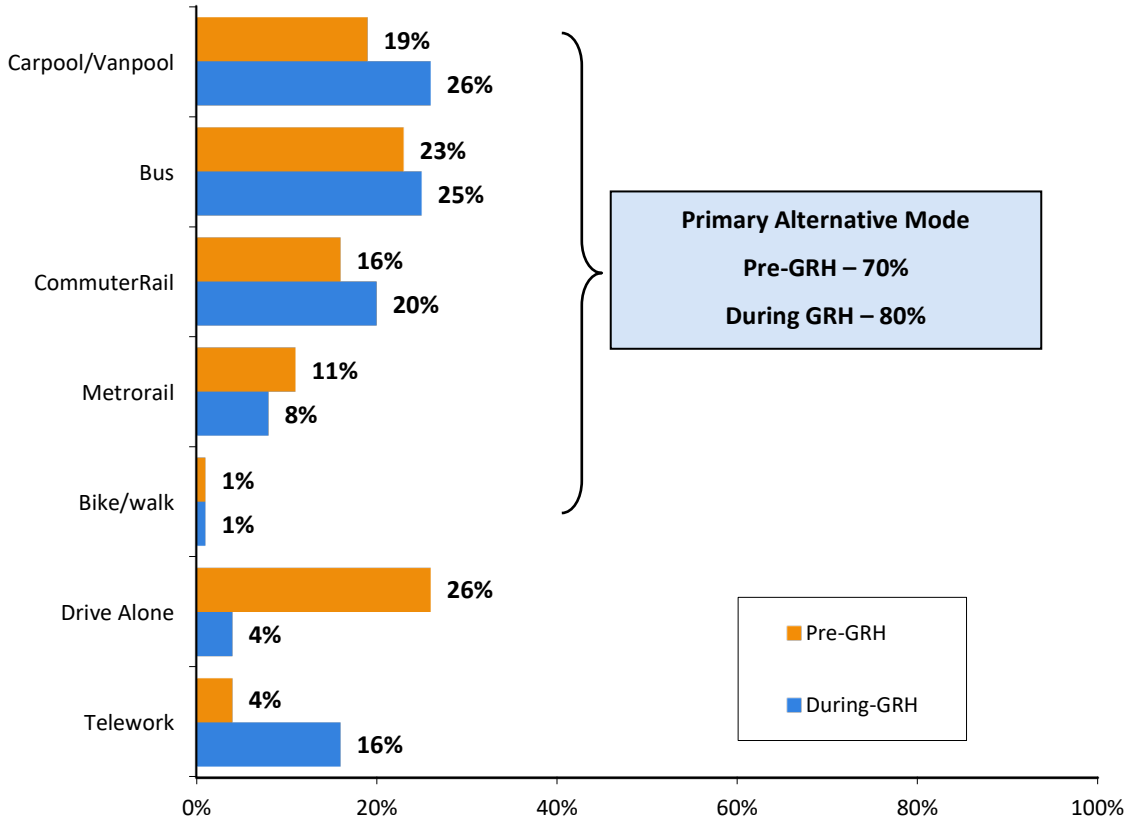


Table 10 illustrates the mode changes respondents made from their primary "pre-GRH" mode to their primary "during-GRH" mode. Drive alone users made the greatest mode changes. One-third (35%) of drive alone respondents shifted to carpooling and nearly half shifted to one of the three transit modes. About 10% of drive alone commuters said they continued to drive alone as their primary mode and 11% said they primarily teleworked; presumably they used an alternative mode two days per week.

Respondents who used alternative modes before they joined GRH largely remained in their pre-GRH modes after they joined GRH. About seven in ten (70%) respondents who previously carpooled or vanpooled, 73% who rode a bus, and 76% who used commuter rail (80%) stayed in these modes. The Metrorail retention was noticeably lower, at 46%. But some switching occurred among all alternative modes. About 7% of respondents who used a bus, Metrorail, or commuter rail pre-GRH switched to carpool or vanpool. Bus and commuter rail also gained users from other pre-GRH modes.

Additionally, some respondents in each pre-GRH alternative mode shifted to primary telework after registering for GRH. Again, this would not violate the GRH rules, so long as they used an alternative mode two or more days per week but it also could indicate some respondents mistakenly reporting telework as their during-GRH mode because they were still registered for GRH when they started teleworking at the beginning of the coronavirus pandemic.

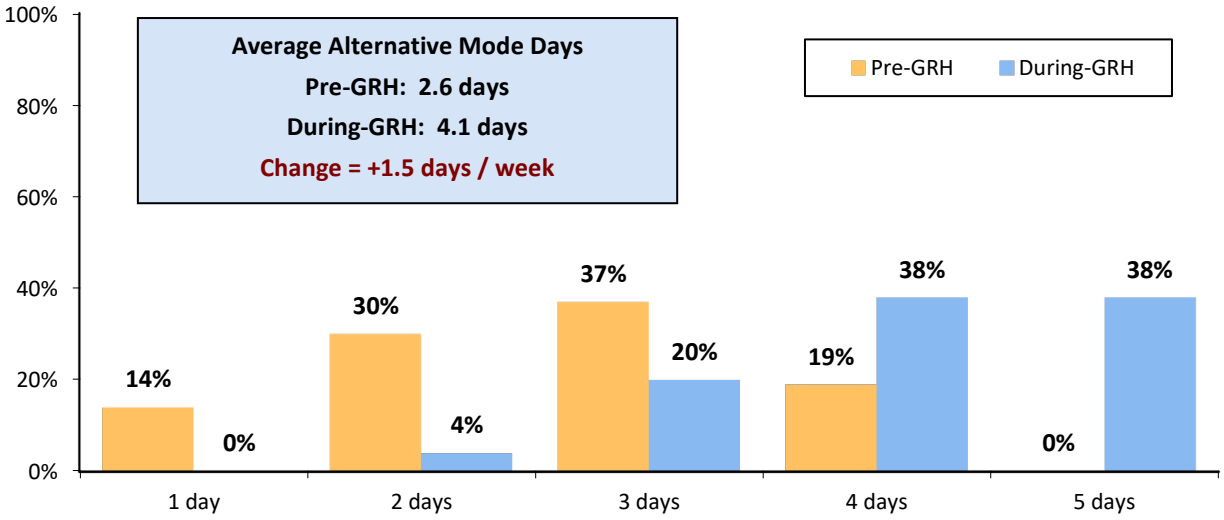
Table 10
Primary Mode During-GRH by Primary Mode Pre-GRH
(Pre-GRH and During-GRH mode shares will not total to 100%, because bike/walk is excluded, multiple responses permitted)

Pre-GRH Mode	During-GRH Mode					
	Drive alone	Telework	Carpool/ Vanpool	Bus	Metrorail	Commuter Rail
Drive alone (n = 330)	10%	11%	35%	20%	4%	20%
Telework (n = 45)	7%	81%	2%	5%	5%	0%
Alternative Modes						
- Carpool/vanpool (n = 245)	3%	14%	70%	10%	1%	2%
- Bus (n = 302)	2%	14%	7%	73%	2%	2%
- Metrorail (n = 148)	2%	18%	7%	14%	46%	13%
- Commuter rail (n = 207)	0%	12%	7%	3%	2%	76%

"During-GRH" Days in Alternative Modes Compared with "Pre-GRH" Days

Respondents Who Increased Alternative Mode Frequency – The second survey research question focused on frequency of alternative mode use. Did participants who were using alternative modes before joining GRH increase the number of days they used these modes after registering? Figure 15 shows the number of alternative mode days per week for these respondents, pre-GRH and during-GRH. It was not possible to answer the question with confidence, due to a small sample; only 30 of the 1,370 respondents said they increased alternative mode frequency. But it appears these respondents did increase their use of alternative modes.

Figure 15
Days Using Alternative Modes Pre-GRH and During-GRH
Respondents Who Increased Alternative Mode Frequency During-GRH
(n = 30)

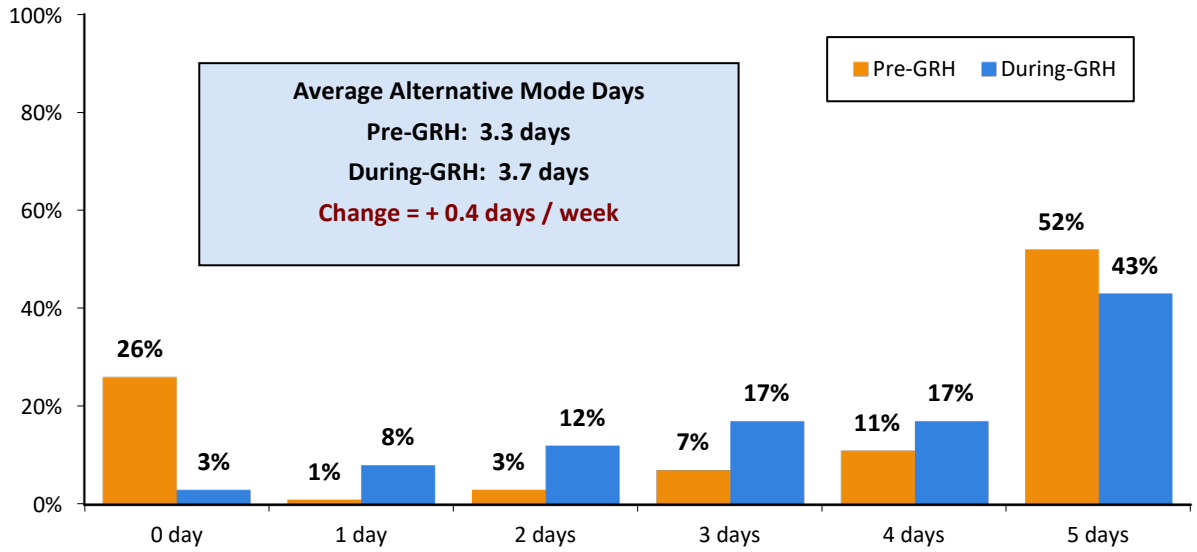


Before joining GRH, 19% of these respondents were using alternative modes four days per week and 37% were using alternative modes three days per week. The remaining 44% used alternative modes one or two days per week before joining GRH. So, most respondents could add only one or two days of alternative mode use per week.

During their GRH registration period, nearly four in ten (38%) who increased alternative mode use were full-time users, while another 38% used alternative modes four days per week. Only one-quarter (24%) of these respondents used alternative modes less than four days per week. Analysis of the frequency change calculated that nine in ten respondents who increased alternative mode use added either one (67%) or two (20%) additional alternative mode days. This is consistent with the change in the overall increase in average alternative mode days from 2.6 days to 4.1 days, or about 1.5 days per week increase per respondent.

All GRH Respondents – The analysis also examined the overall frequency of alternative mode use for all GRH respondents. The average number of days all GRH participants used alternative modes increased, from 3.3 days per week to 3.7 days per week (Figure 16). 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.

Figure 16
Days Using Alternative Modes Pre-GRH and During-GRH (All GRH Respondents)
(Pre-GRH n = 1,298, During-GRH n = 1,369)



Influence of GRH on Commute Pattern Decisions

Types of Pre-GRH to During-GRH Commute Changes

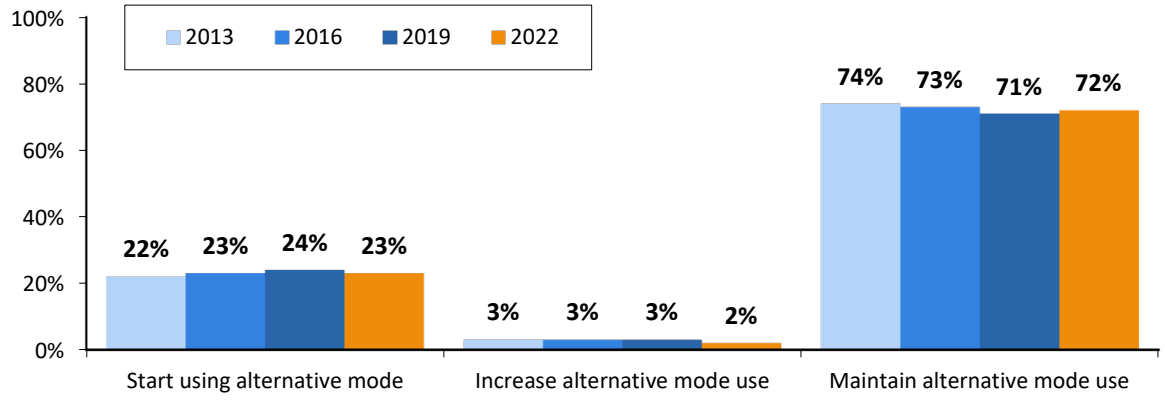
The comparison of pre-GRH and during-GRH commute patterns is only part of the question of GRH's impact. Also important is the value of GRH in motivating these changes. Three types of pre-GRH and during-GRH commute pattern combinations were examined:

- 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 17 presents a breakdown of respondents into these alternative mode change groups. About one-quarter (23%) of respondents started using a new alternative mode at the time they joined GRH. A small number of respondents (2%) increased the number of days they used alternative modes. These percentages were essentially the same as reported in the 2019, 2016, and 2013 GRH surveys.

The largest share of respondents (72%) said they maintained but did not increase use of alternative modes they were using before GRH. This was as expected, since most respondents used an alternative pre-GRH and most used alternative modes four or five days per week pre-GRH. This percentage of "maintained" alternative mode use also was about the same as in the past three GRH surveys.

Figure 17
Alternative Mode Changes from Pre-GRH to During-GRH
(2013 n = 2,226, 2016 n = 2,085, 2019 n = 1,986, 2022 n = 1,298)
Note: Totals will not add to 100% because some respondents said they did not use an alternative mode "During-GRH"



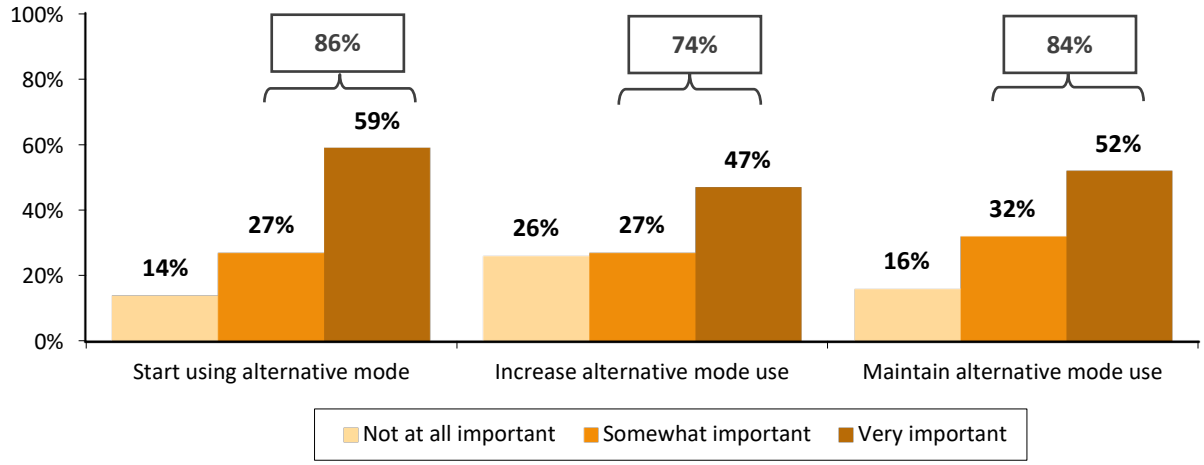
Three percent of respondents said they were not using an alternative mode while they were in GRH, even though the program requires them to be using an alternative mode to participate, about the same as the percentage in the previous three surveys. Respondents who were not using an alternative mode could be explained by the fact that most of these respondents said they were current registrants, thus were not asked directly about their "during-GRH" modes; their "during-GRH" travel was set equal to

their current travel. But if these respondents had recently stopped using alternative modes, they might have said they were currently registered, even though they were no longer eligible for the program.

Importance to Decision to Start, Increase, or Maintain Use of Alternative Modes

For whichever of the three commute pattern categories that applied, respondents were asked how important GRH was to their commute decision. Figure 18 presents the results for this question.

Figure 18
Importance of GRH to Start, Increase, or Maintain Alternative Mode Use
(Start n = 291, Increase n = 26, Maintain n = 890)



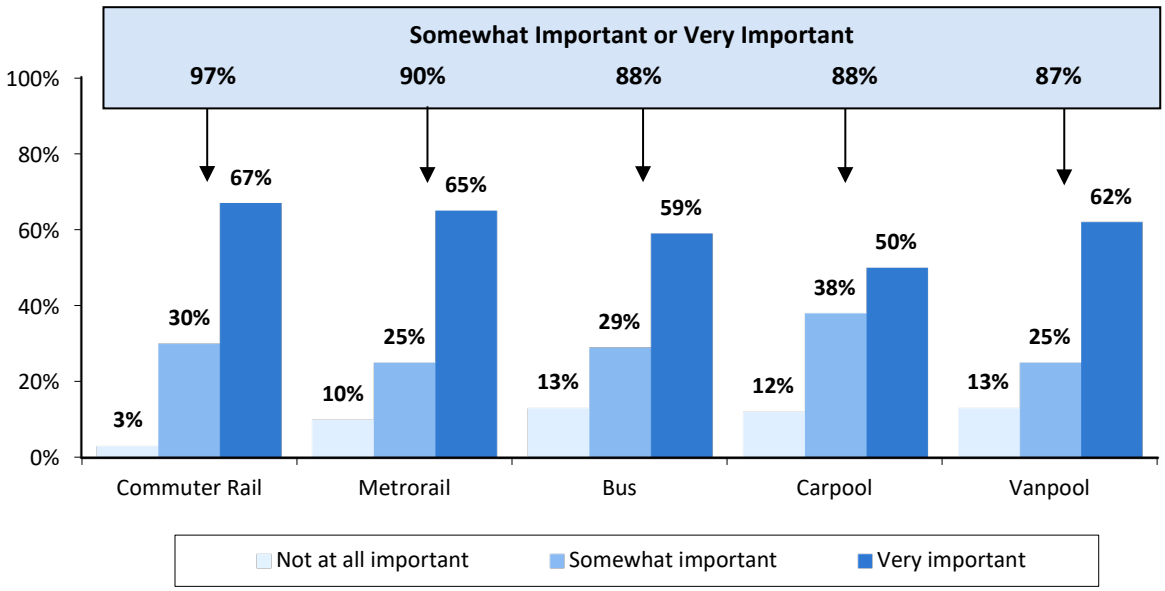
Start Using Alternative Mode – Nearly nine in ten (86%) respondents who drove alone pre-GRH and started using alternative modes during-GRH said GRH had been important to their decision to make the change. Six in ten (59%) said GRH had been very important and 27% said it was somewhat important to the decision. The remaining 14% said GRH was not at all important.

Increase Use of Alternative Mode – The importance of GRH to respondents who increased use of alternative modes was slightly lower than that for respondents who started alternative modes; 74% of respondents who increased alternative mode said it was either very important (47%) or somewhat important (27%). Given the small sample size for this group, however, the difference in importance rating is not statistically different from the "start alternative mode" group.

Maintain Use of Alternative Mode – GRH appears to be similarly important for respondents who maintained alternative mode use as for those who started using alternative modes. About 84% of respondents who maintained alternative mode use said GRH was very important (52%) or somewhat important (32%) to their decision.

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

Figure 19
Importance of GRH to Maintain Alternative Mode Use by Alternative Mode Used Pre-GRH
(Commuter Rail n = 185; Metrorail n = 134, Bus n = 265, Carpool n = 131; Vanpool n = 84)

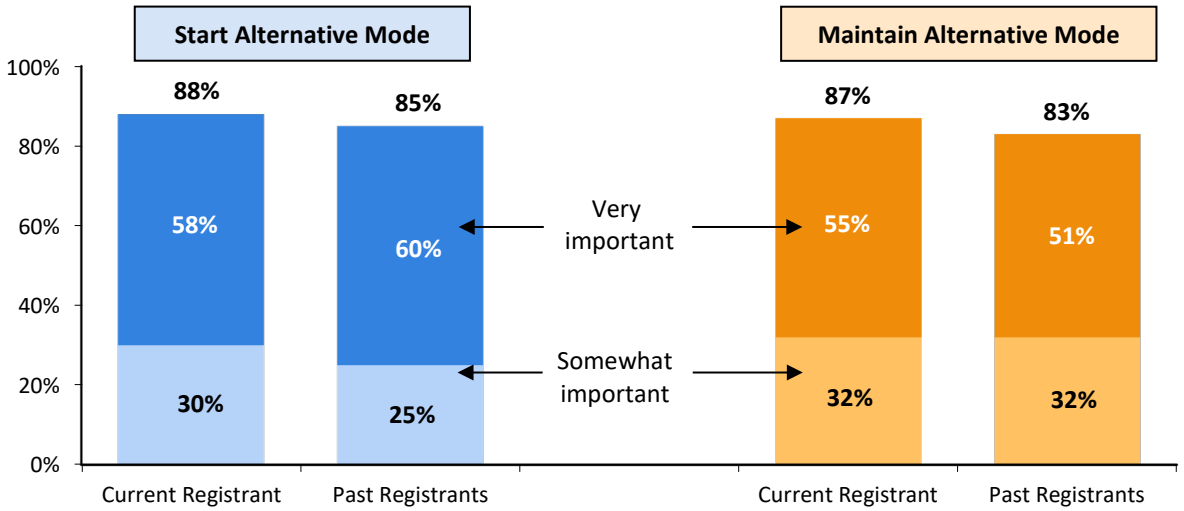


Nearly all (97%) respondents who rode a commuter train pre-GRH said GRH had been at least somewhat important to their decision to continue using this mode and 67% said it was very important. About nine in ten respondents in each other mode category rated GRH as quite important, with 90% of Metrorail riders, 88% of bus riders and carpoolers, and 87% of vanpoolers saying it was at least somewhat important. Additionally in each mode group, at least half rated GRH as very important to their continuing to use their pre-GRH commute mode.

Importance of GRH by Registration Status – Figure 20 presents the relative importance of GRH to current registrants and past registrants. Among participants who started using an alternative mode, 88% of current registrants rated GRH as either important or very important; a similar share of past registrants (85%) gave these high ratings. The results were about the same for current and past registrants who continued using an alternative; 87% of continued registrants said it was important, compared with 83% of past registrants.

Figure 20
Importance of GRH to Decision to Start or Maintain Alternative Mode by Registration Status

(Start alternative mode: Current registrants n = 107, Past registrants n = 184
(Maintain alternative mode: Current registrants n = 337, Past registrants n = 553)

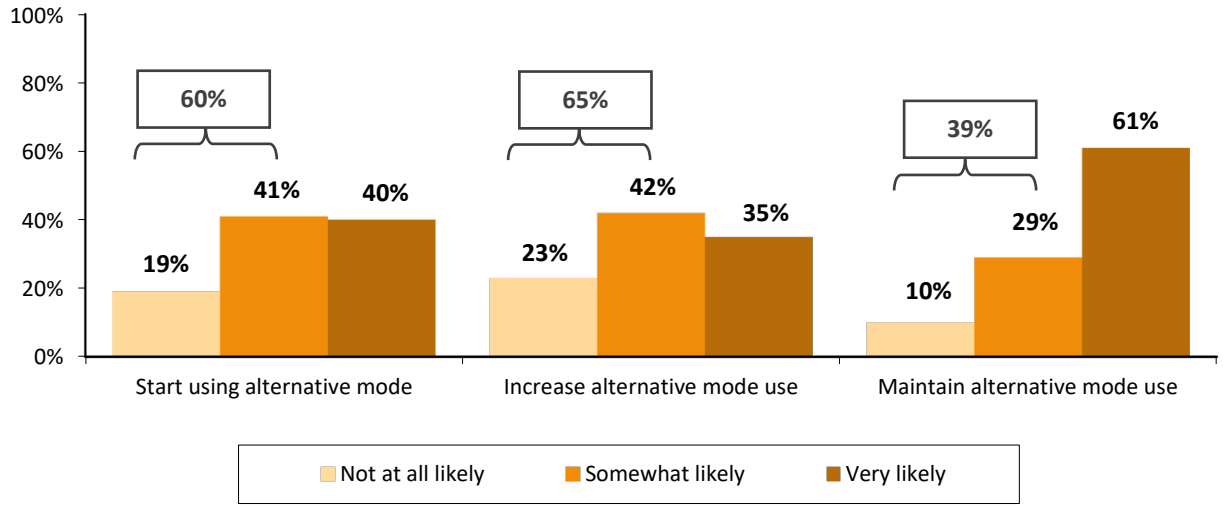


Likely to Make Alternative Mode Changes if GRH Not Available

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 21 shows the likelihood mentioned by respondents who started, increased, or maintained use of alternative modes.

Figure 21
Likely to Start, Increase, or Maintain Use of Alternative Modes if GRH Not Available

(Start n = 282, Increase n = 22, Maintain n = 849)



Start Using Alternative Mode – Six in ten respondents who started using alternative modes said they were not likely (19%) or only somewhat likely (41%) to have made the change if GRH had not been available. The remaining 40% said they were very likely to have made the change even if they did not have access to GRH; these respondents were considered not to have been influenced by GRH.

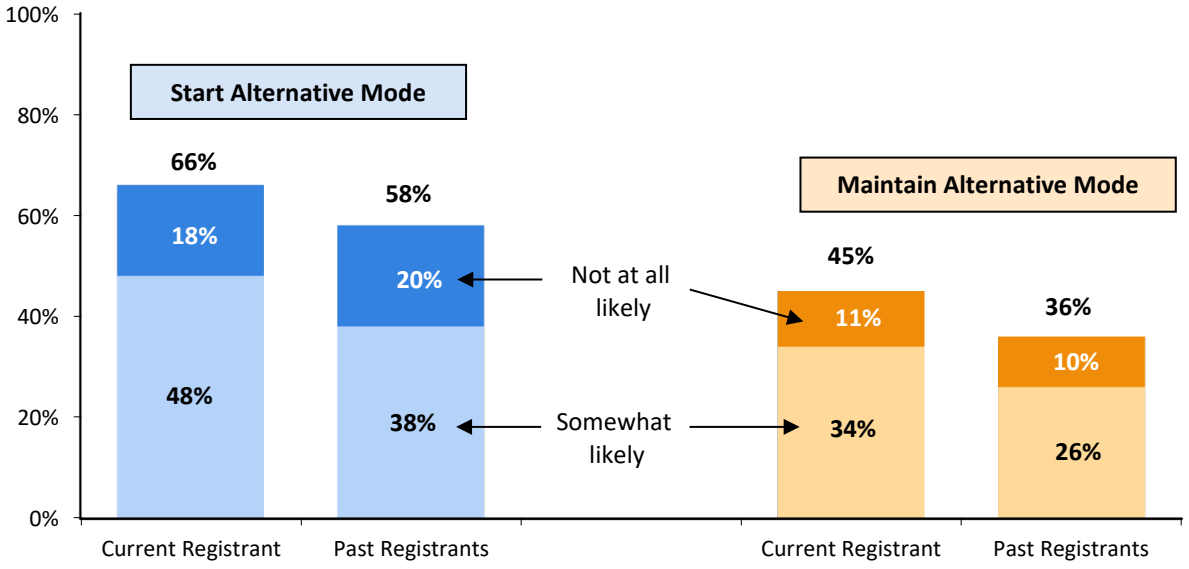
Increase Use of Alternative Mode – A small number of respondents used alternative modes pre-GRH but increased their use of these modes while participating in GRH. GRH seemed to be of similar value to these respondents as to those who started using alternative modes. Almost one-quarter (23%) were not at all likely to have made this change without GRH and 42% were somewhat likely to have made this change. One third (35%) of respondents who increased alternative mode use were very likely to have made the change without GRH.

Maintain Use of Alternative Mode – GRH seem to be less valuable to registrants who were using alternative modes and didn't make any changes during GRH (maintained alternative mode); 61% said they were very likely to have continued in this mode even if GRH had not been available. One in ten (10%) said they were not at all likely to have continued that mode and 29% were somewhat likely to have continued that mode without GRH.

Likelihood to Start or Continue Modes by Registration Status – Finally, Figure 22 shows differences between current and past registrants in likelihood to start or maintain alternative modes without GRH.

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

(Start alternative mode: Current registrants n = 105, Past registrants n = 177)
(Maintain alternative mode: Current registrants n = 322, Past registrants n = 527)



There was no statistical difference between current and past registrants in their likelihood to start alternative modes; about two-thirds (66%) of current registrants and six in ten (58%) past registrants said they were not at all likely or only somewhat likely to start using the new alternative mode. Among respondents who maintained alternative mode use, 45% of current registrants and 36% of past registrants said they were not likely or only somewhat likely to take this action without GRH.

Other Influences Motivating Commute Changes

Figures 18 through 22 presented an apparent contradiction. Despite the high percentage of respondents who rated GRH as very important or somewhat important to their decisions to use alternative modes, 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 other GRH program evaluations. GRH users typically do rate GRH as a valuable service but indicate that it is not "the reason" for which they made a change to an alternative mode. They were influenced by a variety of factors, including GRH, but including other factors as well.

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 23 lists the services that respondents mentioned receiving from Commuter Connections, in addition to GRH. Slightly more than four in ten (44%) said GRH was the only service they received from Commuter Connections. The other 56% noted one or more other services.

The top section of the figure shows services focused primarily on assistance for carpooling and vanpooling. About two in ten (18%) received a matchlist with names of potential carpool/vanpool partners, 8% received a rideshare matching map, and 17% received "other" carpool or vanpool information. Twenty percent of respondents received information on Park & Ride lots from Commuter Connections, 11% received HOV/Express lane information, and 4% obtained information on the 'Pool Rewards carpool and vanpool incentive program. Four percent of respondents said they had used the CarpoolNow mobile application for real-time ridematching.

The percentages of 2022 respondents who received each of these services were generally like the percentages for the 2019 and 2016 GRH surveys, except that a higher share of respondents reported receiving P&R lot information in 2022 (20%) than in the two previous surveys (2019 14% and 2016 12%).

Figure 23 also shows use of transit, bike/walk, telework, and multi-modal services. Two in ten (22%) respondents obtained transit route or schedule information, the highest percentage of all services listed. About two in ten (19%) 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. Six 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; 3% had used the incenTrip trip tracking and points application and 3% had used the Flextime Rewards incentive.

Figure 23
Assistance or Benefits Received from Commuter Connections, in Addition to GRH
(2016 n = 2,171, 2019 n = 1,984, 2022 n = 1,324 (multiple responses permitted for use of services)

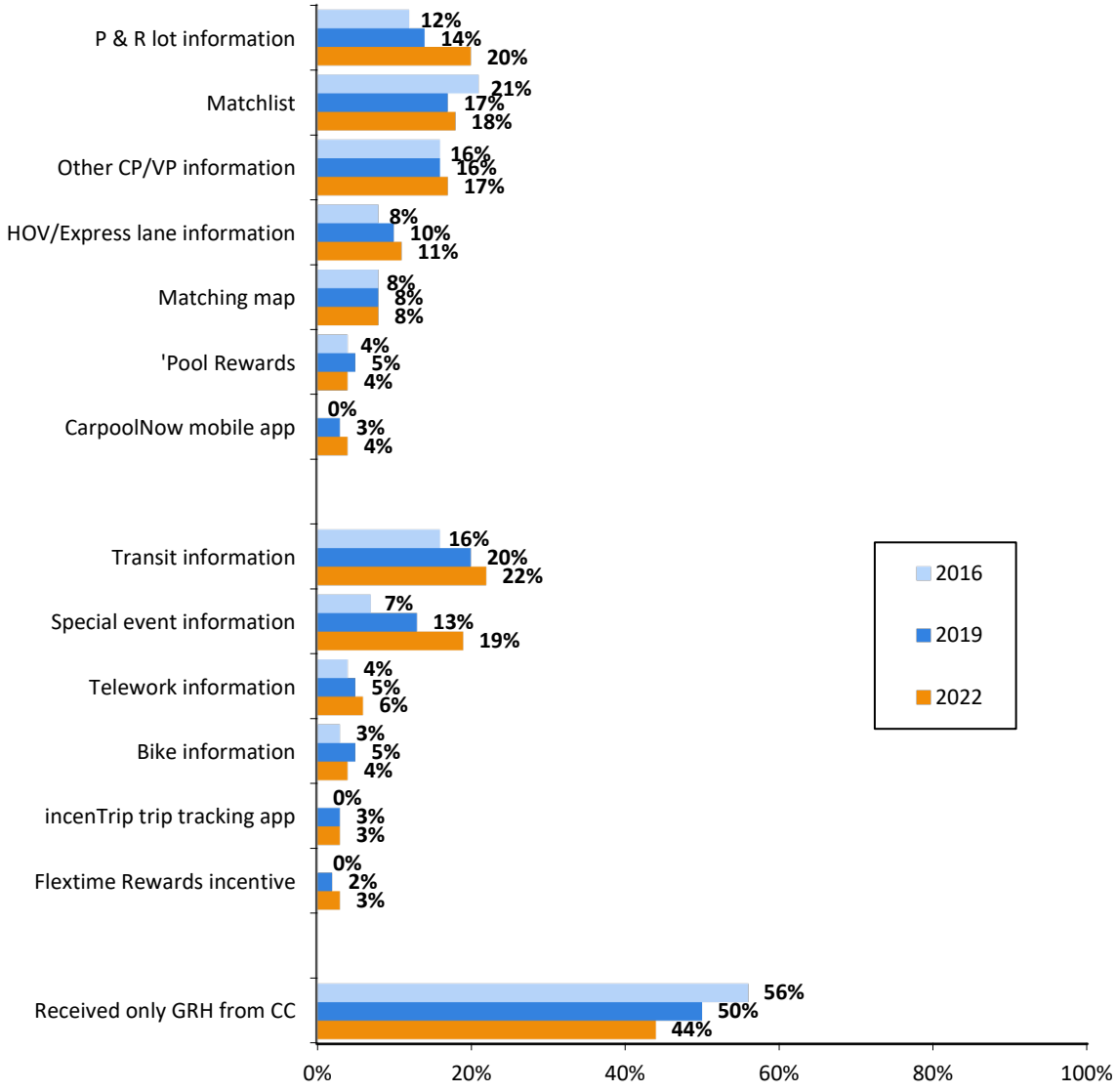
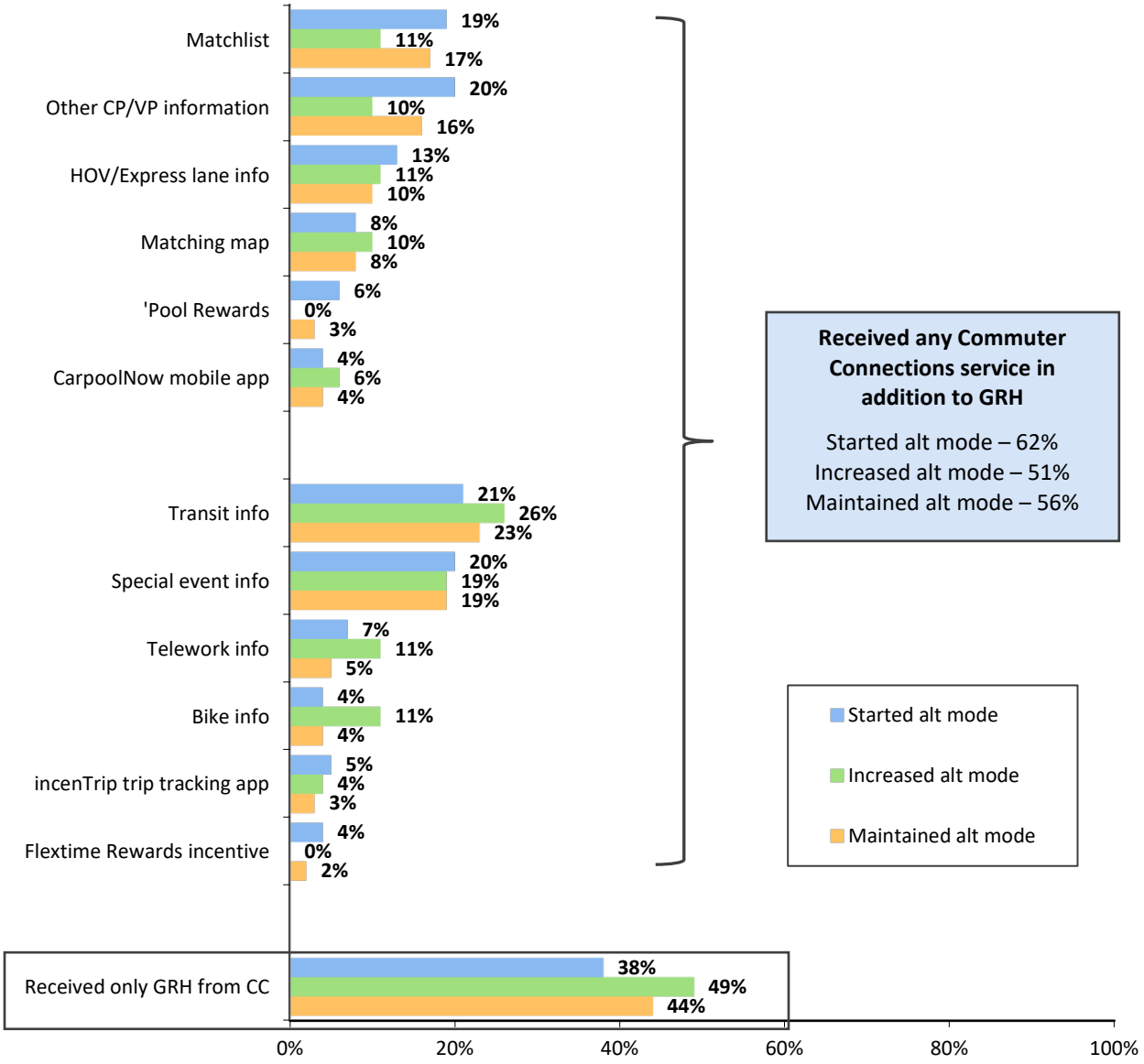


Figure 24 shows the same services, with respondents divided into groups by the type of commute change they reported from the pre-GRH to during-GRH period. Respondents who started using alternative modes and those who maintained alternative mode use received non-GRH Commuter Connections services at statistically the same rates (Started 62%, Maintained 56%). About half (51%) of respondents who increased alternative mode use noted using at least one non-GRH service but the sample size for this change group was very small (29 respondents) and the rate of non-GRH service use was statically the same for these respondents as for the other change groups. There also were no substantial differences in use of individual services across the three groups. Any apparent differences were not statistically significant.

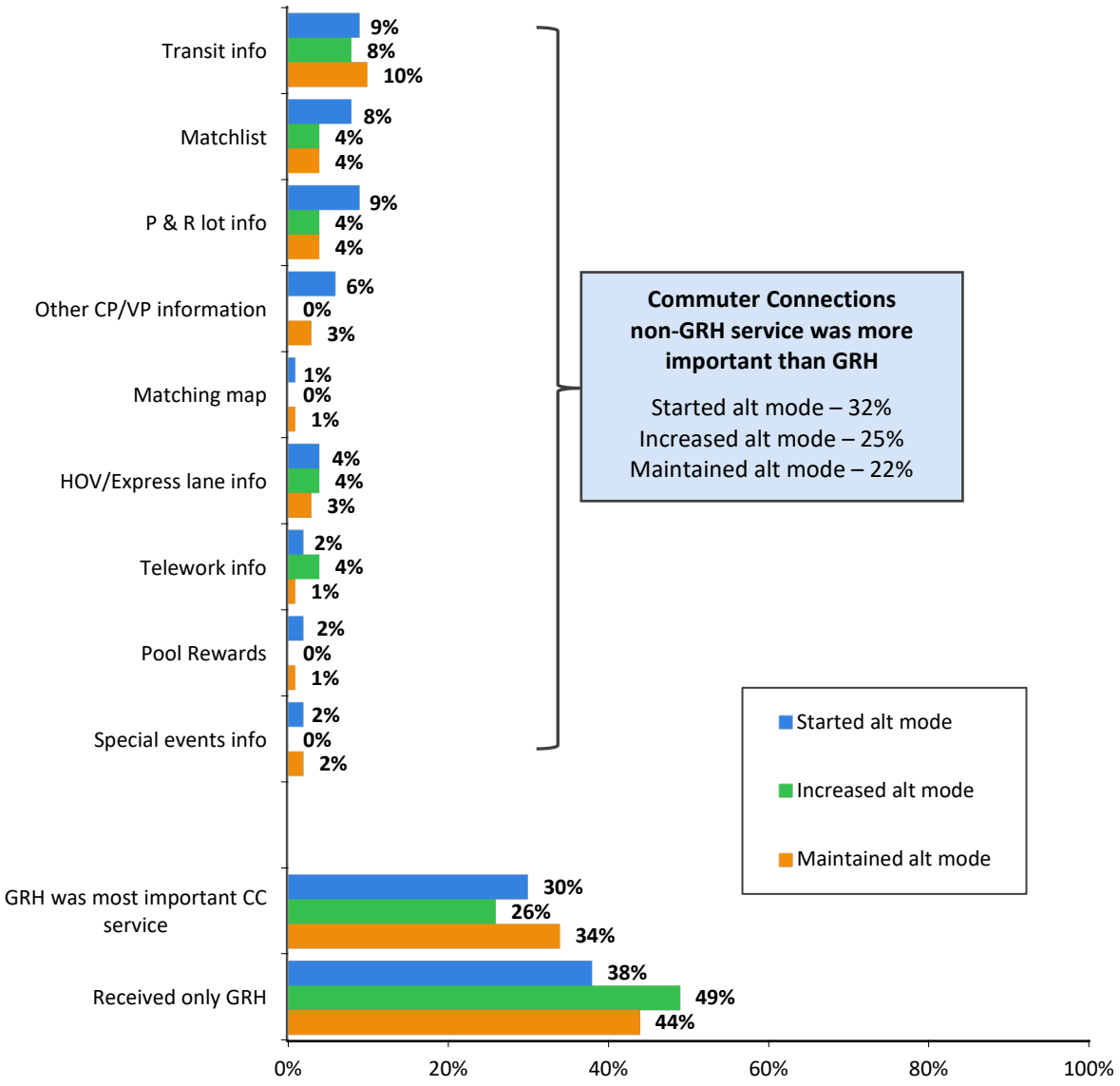
Figure 24
Commuter Connections Assistance Received in Addition to GRH – By Type of Commute Change
(Started alt mode n = 282, Increased alt mode n = 29, Maintained alt mode n = 902) (multiple responses permitted)



Commuter Connections Assistance or Benefits that Were <u>More Important</u> than GRH – Respondents who had received non-GRH services from Commuter Connections were asked if any of these services had been <u>more important than GRH</u> in influencing their use of alternative modes. As noted earlier, 44% said GRH was the only Commuter Connections service they used. Another 30% had used a non-GRH Commuter Connections service but said that GRH was the most important of the services they received. The remaining 26% said a non-GRH service from Commuter Connections had been more important than GRH to their decision. Figure 25 presents percentages of respondents who reported non-GRH services that were more important to their decisions by the type of alternative mode use decision they made.

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

(Started alt mode n = 282 Increased alt mode n = 29, Maintained alt mode n = 902, multiple responses permitted)
Note: Services that were mentioned by less than 1% of respondents are excluded from the chart

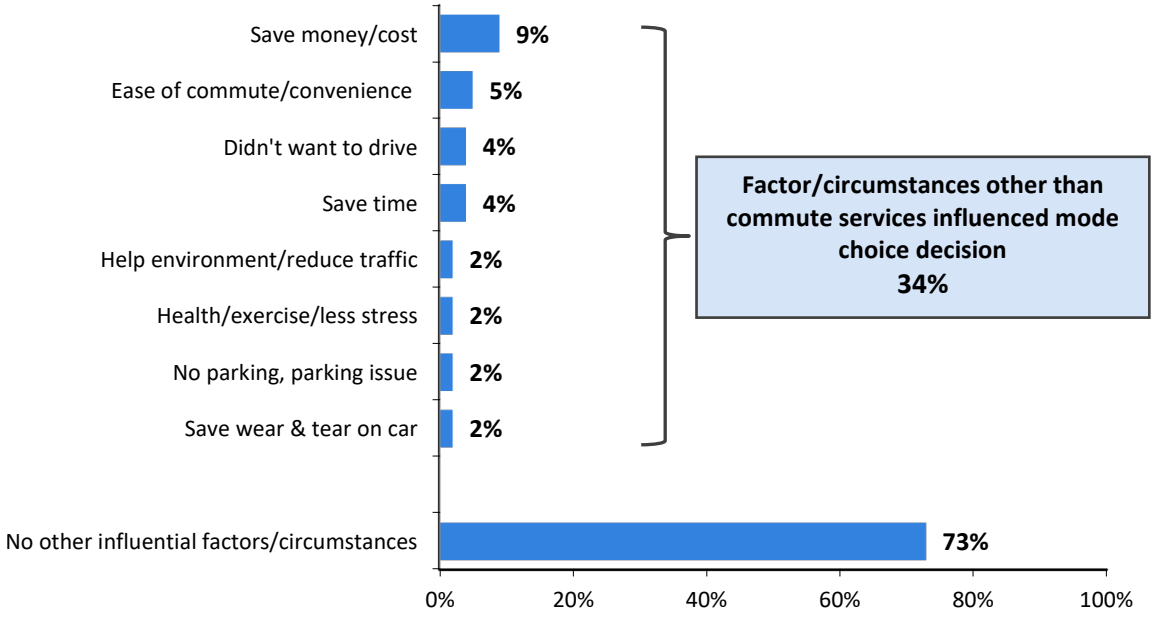


As indicated in the bottom section of the figure, some respondents in each of the change groups said GRH was the only service they received (Started 38%, Increased 49%, Maintained 44%) and other respondents said GRH had been the most important Commute Connections service they received (Started 30%, Increased 26%, Maintained 34%). Accounting for these two groups, this leaves relatively small shares of respondents who mentioned any other Commuter Connections service that was more important than GRH. Only 32% of respondents who started an alternative mode, 25% who increased alternative mode use, and 22% who maintained alternative mode use reported a Commuter Connections service that was more important than GRH.

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. Thirty-seven percent mentioned a service that had influenced their decision. Nearly all these respondents (29% of 37%) said the influential service was a transit pass, transit subsidy, vanpool subsidy, or pre-tax payroll deduction for commute travel costs. Each other service mentioned was named by less than one percent of respondents.

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. Twenty-seven percent mentioned one or more other factors or circumstances (Figure 26). The most common factors were a desire to save money (9%), have an easier or more convenient commute (5%), avoid driving (4%), or save time (4%). Small shares of respondents reported other factors.

Figure 26
Other Factors/Circumstances Important to Decision to Make a Change in Alternative Modes
(n = 1,370, multiple responses permitted)



Use of and Satisfaction With GRH

Characteristics of Participants Who Used GRH Trips

Forty percent of respondents said they had taken a GRH trip (Table 11). This was about the same as the 37% who reported using GRH in 2019 and slightly higher than the 33% who reported using GRH in 2016. Current registrants (39%) used GRH trips at the same rate as did past registrants (40%). Current and past registrants had been participating in GRH for about the same average amount of time (current – 46 months, past – 48 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.

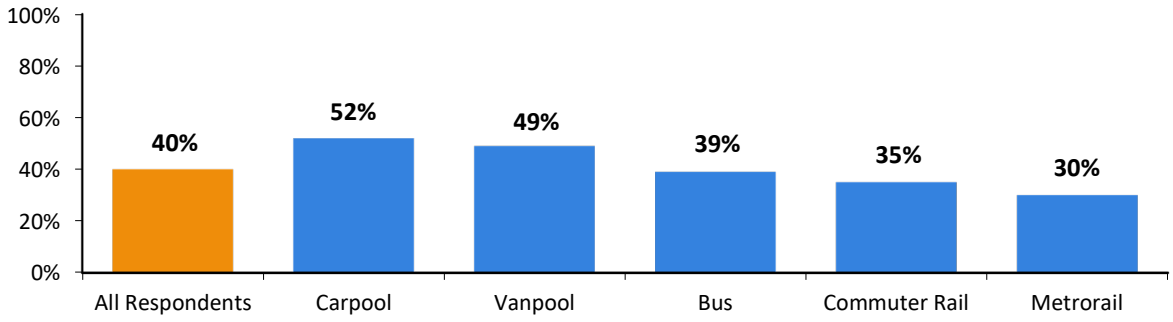
Table 11
Used GRH Trip – All Respondents, Current Registrants, and Past Registrants

Taken a GRH Trip	All Respondents (n = 1,330)	Current Registrants (n = 534)	Past Registrants (n = 796)
Yes	40%	39%	40%
No	60%	61%	60%

Used GRH Trip by Demographic Characteristics – Female respondents used GRH at a higher rate than did males; 43% of female respondents said they had taken a GRH trip, compared with 38% of males. Non-Hispanic Black (51% had taken a trip) respondents also were higher users of the program than were Hispanic (42%), Asian (42%), and Non-Hispanic Whites (36%). And use of GRH trips increased with increasing respondent age. Three in ten (30%) respondents who were younger than 35 years had taken a GRH trip, compared with 38% who were between 35 and 54 years and 43% of respondents who were 55 years or older. There was no difference in use by respondent income.

Used GRH Trip by During-GRH Modes – Figure 27 compares use of GRH by five "during-GRH" mode groups: carpool, vanpool, bus, commuter rail, and Metrorail. Carpoolers and vanpoolers were most likely to have used a GRH trip, with 52% and 49%, respectively, saying they had taken a GRH trip. About four in ten (39%) bus riders and 35% of commuter rail riders had taken a trip. Metrorail riders had the lowest usage; only 30% had taken a trip.

Figure 27
Used GRH Trip by Primary Commute Mode During-GRH
(All respondents n = 2,066, Carpool n = 144, Vanpool n = 188, Bus n = 343, Commuter rail n = 264, Metrorail n = 101)

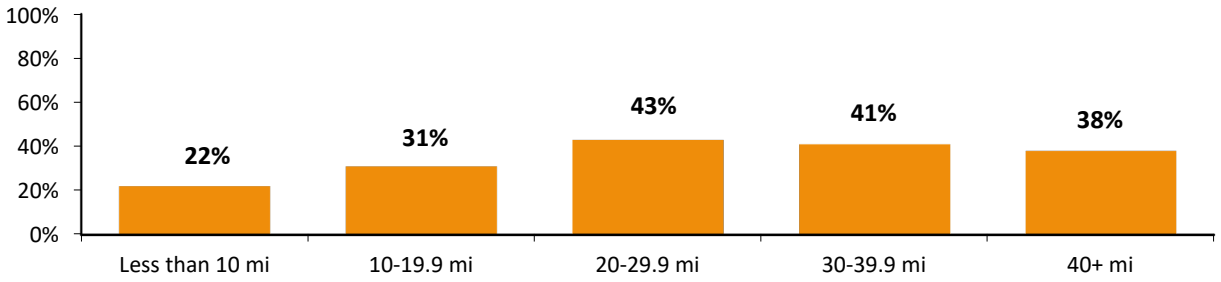


There was no statistical difference in GRH trip use by how frequently registrants used alternative modes; 40% of registrants who used alternative modes three or more days per week while participating in GRH had taken a GRH trip, compared with 38% who used alternative modes two days a week or less.

Used GRH Trip by Commute Distance – The average one-way distance of a respondent who used a GRH trip, 38.0 miles, was about the same as the 37.0 miles for GRH respondents overall, but GRH use rose slightly as commute distance increased (Figure 28). About 22% of respondents who traveled less than 10 miles and 31% who traveled between 10 and 19.9 miles one-way used GRH. By contrast, about four in

ten respondents with commute distances of 20 miles or more had made a GRH trip. This suggests that registrants with shorter commutes found another travel option, such as a being driven by a co-worker or taking transit, for which they paid themselves.

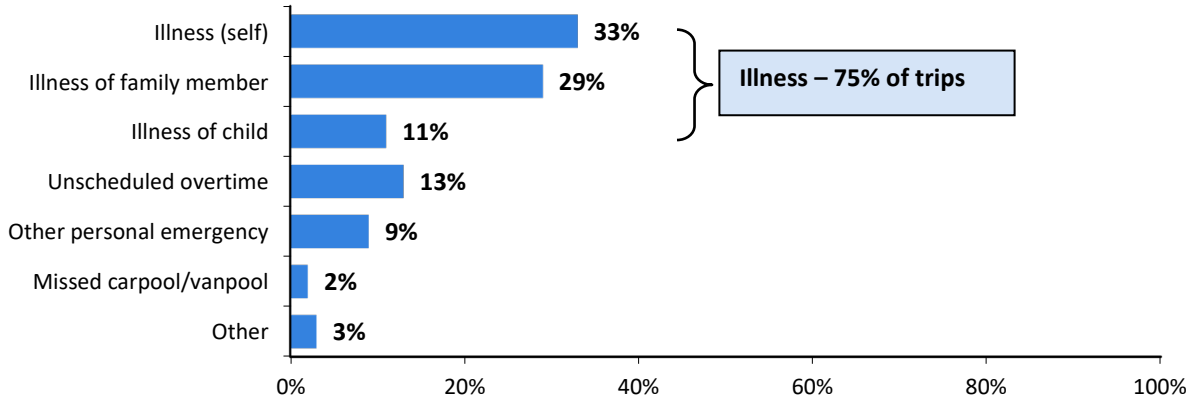
Figure 28
Used GRH Trip by Commute Distance (miles)
(Less than 10 mi n = 59, 10-19.9 mi n = 88, 20-29.9 mi n = 154, 30-39.9 mi n = 165, 40 mi or more n = 349)



Reasons for Taking GRH Trips

Figure 29 lists the reasons for which participants used the service for their most recent trip. Three-quarters of GRH trips were taken to address an illness: respondent (33%), another family member (29%), or a child (11%). Unscheduled overtime (13%) and other personal emergency (9%) were the two other common reasons.

Figure 29
Reason for Taking Most Recent GRH Trip
(n = 528)



Satisfaction With the Trip

Respondents who had taken a GRH trip were asked if the service was satisfactory. The overwhelming majority (97%) said they were satisfied. The primary reasons given by the 15 unsatisfied respondents include: waited too long (10 respondents), difficult to get approval (4 respondents), did not like the GRH trip provider vehicle or driver (6 respondents), or a customer service concern (3 respondents).

Respondents waited an average of 19 minutes for the GRH ride provider, five minutes longer than in 2019 (14 minutes). In 2022, 37% of respondents who had taken a GRH trip said the ride provider arrived within 10 minutes and seven in ten (71%) respondents waited 20 minutes or less (Table 12).

Table 12
Time Waited for GRH Ride Provider
(n = 526)

Wait Time	Percentage	Cumulative Percentage
5 minutes or less	15%	15%
6 to 10 minutes	22%	37%
11 to 20 minutes	34%	71%
21 to 30 minutes	18%	89%
31 to 45 minutes	4%	93%
46 or more minutes	7%	100%

Desired Improvements to the GRH Program

Participants appear to be generally quite satisfied with the GRH Program. Nine percent of respondents said no improvement was necessary for the GRH program and 75% said they did not have suggestions or left the question blank. The remaining 16% mentioned the suggestions detailed in Table 13.

Table 13
Suggested Improvements to GRH Program
(n = 1,370, multiple responses permitted)

Desired Improvement	Percentage*
More advertising/more program information	3%
Better communication about how program works	3%
Relax conditions	2%
Easier/faster approval	2%
Improve website/app	2%
Allow more trips per year	1%
Wider area for trips	1%
Extend hours for use	1%
Send annual e-mail reminder for renewal	1%
GRH drivers more knowledgeable about the program	1%
Other	3%
No improvement needed	9%
Don’t know/no suggestions were provided	75%

No single suggestion was mentioned by more than 3% of respondents. The most common improvements were for more advertising or better communication about how the program works, each named by 3% of respondents. Three responses, relax conditions for program use, easier/faster approval, and improve the website or create a mobile application for the program, each was named by 2% of respondents. All other responses were cited by fewer than 2% of respondents. Fewer respondents made suggestions in 2022 (16%) than in 2019 (32%) but the relative order of improvement comments received in 2022 were about the same as for the 2019 survey.

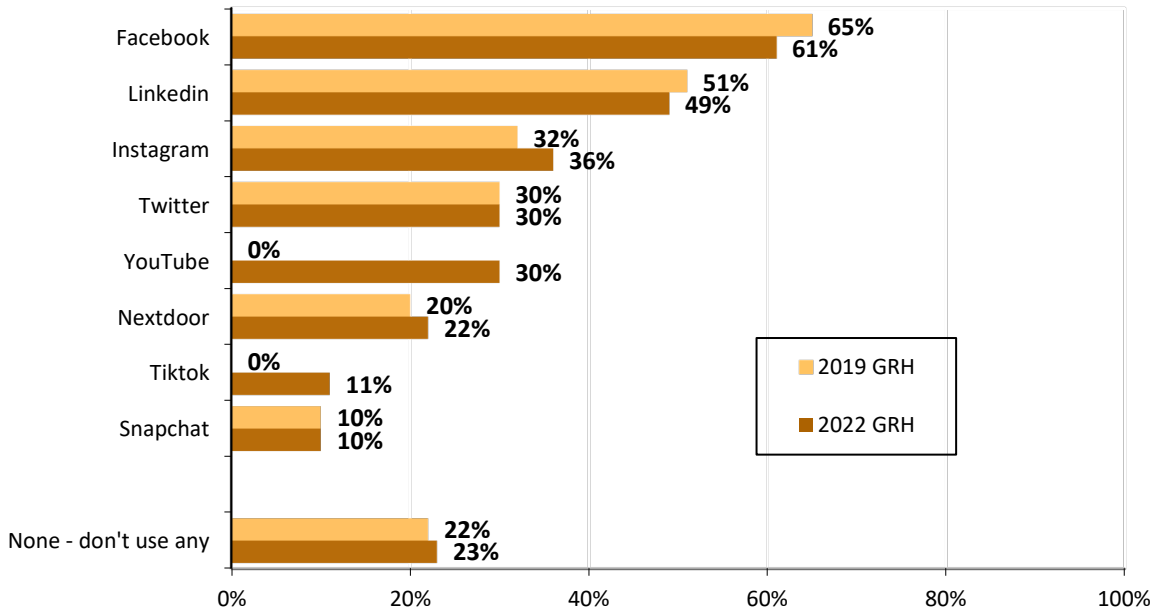
Social Networking/Social Media and Travel Information Applications

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 30).

Figure 30
Social Networking/Social Media Applications – GRH Registrants with Accounts in 2019 and 2022
(2019 n = 2,014, 2022 n = 1,342)



About three-quarters (77%) GRH respondents said they had an account with at least one of the applications. The most common application was Facebook, used by 61% of respondents. LinkedIn, used primarily for work-related/professional interactions, was noted by 49% of respondents. About one-third (36%) had an account with Instagram and three in ten had accounts with Twitter (30%) and YouTube (30%). Two in ten (21%) mentioned having a Nextdoor account and one in ten reported accounts with TikTok (11%) and Snapchat (10%).

The results from the 2022 survey were very close to those from 2019, with two exceptions; Facebook was slightly less reported in 2022 and Instagram was mentioned by a slightly larger segment of respondents in 2022. YouTube and TikTok had not been included in the list in 2019, so there is no comparison data for these apps.

GRH registrants' use of social networking/social media applications declined with increasing respondent age. In 2022, nearly nine in ten (89%) respondents who were younger than 35 years had accounts, compared with 80% of respondents who were between 35 and 54 years, 75% who were between 55 and 64 years, and only 69% of respondents who were 65 years or older.

	Use at least one application
Age Group	
Under 35 years	89%
35 to 54 years	80%
55 to 64 years	69%
65 years or more	70%

Travel/Trip Information Applications

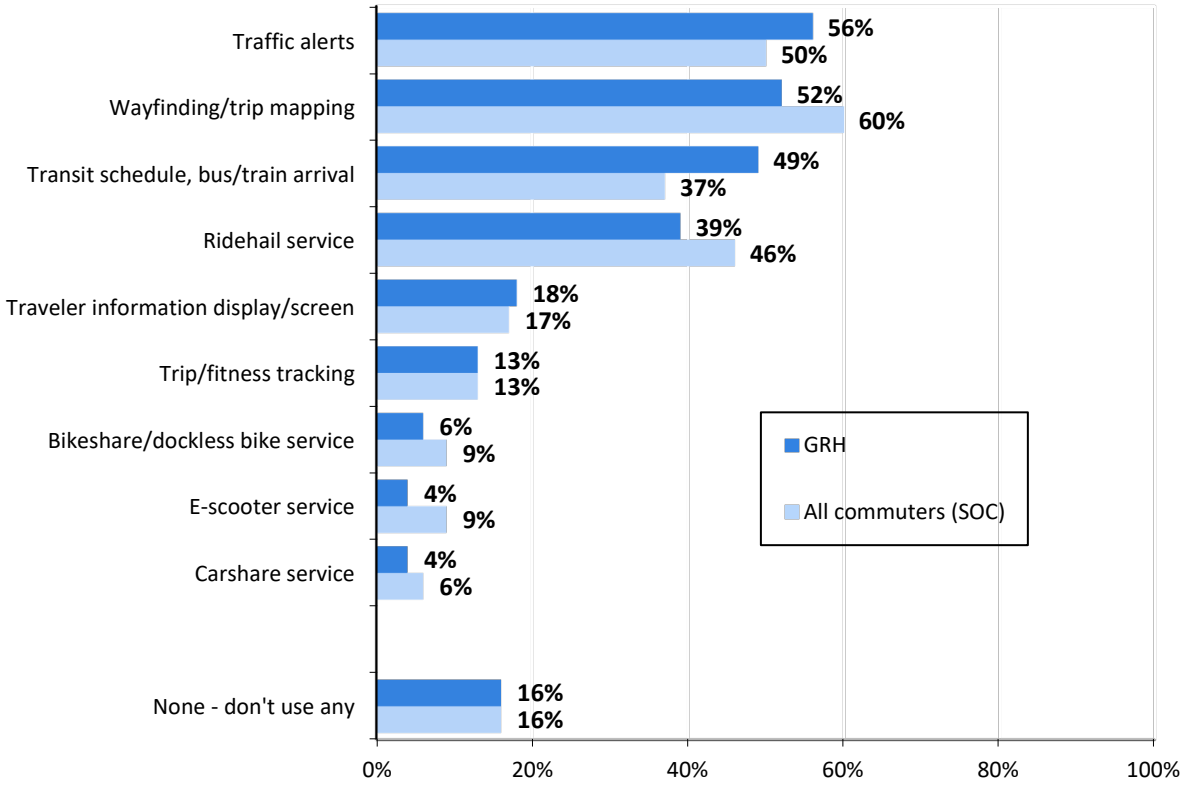
Wide-scale availability of smartphones and other mobile devices also has created an opportunity for commute information and service organizations to deliver an extensive range of traveler information via mobile applications, enhancing commuters' access to travel information in real time and before and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

More than eight in ten (84%) GRH respondents had used at least one application (Figure 31). The most common application was for traffic alerts delivered via text message or other means; 56% of GRH respondents had used this type of app. Wayfinding or mapping applications, such as Google maps and Waze also were common among GRH respondents; 52% had used this type of application.

Nearly half (49%) of GRH respondents had used an application that tracked transit schedules or provided "next bus/train" information on arrival time and 39% had used an application for a ridehailing service such as Uber or Lyft. About two in ten (18%) used a traveler information display or screen located in a public location and 13% had used a trip or fitness tracking app. Smaller shares of respondents had used applications for bikeshare (6%), e-scooter (4%), and carshare (4%) services.

Overall use of travel/trip information applications was about the same for GRH registrants (84%) and commuters region-wide (84%). But GRH respondents used some travel information apps at higher or lower rates than did all regional workers. Fifty-six percent of GRH registrants used traffic alerts, compared with 50% of all regional commuters. GRH respondents also were much higher users of transit schedule/transit arrival applications (GRH 49%, SOC 37%). GRH registrants used wayfinding/trip mapping apps, ridehailing service apps, and e-scooter service apps at lower rates than did all regional commuters.

Figure 31
Travel/Trip Information Applications – Respondents Using Apps in 2022
GRH Registrants and All Regional Commuters
(GRH registrants n = 1,335, SOC all commuters n = 8,342)



Use of Travel/Trip Information Applications by Age – As noted for use of social networking/social media apps, use of travel/trip information applications showed a slight decline with increasing respondent age. Nine in ten (89%) GRH respondents who were younger than 45 years had used these apps, compared with 84% who were between 45 and 54 years and 82% of those who were 55 years or older.

Use of individual applications varied more by age, with younger respondents nearly always using the apps more than did older respondents (Table 14). The only application that exhibited an increasing pattern with increasing age was traffic alerts; 60% of respondents who were 55 years or older had used this application, compared with just 47% of respondents who were younger than 45 years.

Respondents who were younger than 45 years were higher users of wayfinding, ridehail, and traveler information displays than were older respondents. Younger respondents also used bikeshare, e-scooter, and carshare service apps more than did older respondents. The 2022 SOC survey demonstrated that younger respondents were less likely to have access to a personal vehicle and more likely to live in the central section of the region, where these services are more widely available.

Table 14
Use of Travel/Trip Information Applications by Age – GRH Registrants
(Shading indicates statistically higher percentages)

Trip/Travel Application	Respondent Age		
	18 – 45 years (n = 300)	**45 – 54 years** (n = 395)	**55+ years** (n = 617)
Use any trip/travel info app	89%	84%	82%
Wayfinding	64%	51%	47%
Ridehail service	55%	39%	32%
Traveler information display	23%	19%	16%
Bikeshare service	12%	4%	4%
E-scooter service	9%	3%	2%
Carshare service	7%	3%	3%
Trip/fitness tracking	17%	14%	10%
Traffic alerts	47%	58%	60%
Transit schedule arrival	51%	48%	47%

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, 2010 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 Commuter Connections' Regional 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 ten $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 Commuter Connections' 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 *Left blank*

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 *Left blank* → **SKIP TO Q3 AND RECODE Q1(97)**

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

Q2. Are you currently registered for Commuter Connections' GRH program? **(OPTIONAL.)**

01 Yes → **SKIP TO Q6**
02 No → **SKIP TO Q4**
98 Don't know → **SKIP TO Q4**
99 *Left blank* → **SKIP TO Q4**

IF [Q1(97) OR Q1A(02,98,99) OR Q2(99)], ASK:

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

01 Yes
02 No → **THANK AND TERMINATE**
99 *Left blank* → **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 Commuter Connections' 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 Buspool~~ ***N/A Not used***	
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	
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 DAYS

DEFINE CMCA (Current Most Common Alternate)
Set CMCA using Q14_5-15 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 =
- **Q14.5, SET CMCA = 5 (Carpool)**
- **Q14.6, SET CMCA = 6 (Casual Carpool / Slug)**
- **Q14.7, SET CMCA = 7 (Vanpool)**
- **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)**

IF TIE FOR MOST Q14 DAYS USED, SELECT IN THIS ORDER:
VANPOOL, CARPOOL, BUS, VRE, MARC, 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 – 21 AND 95, DO NOT ALLOW MULTIPLES WITH 96

Interstate Highways

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

Major U.S./State Routes

11 BW Parkway (US 295, Baltimore-Washington Parkway - MD)
12 Dulles Toll Road (Dulles Greenway, Route 267)
13 GW Parkway (George Washington Parkway)
14 ICC (Inter-County Connector, Route 200)
15 US Route 1 (MD)
16 US Route 1 (VA - Richmond Highway, Jefferson Davis Highway)
17 US Route 29 (MD - Colesville Road, Columbia Pike)
18 US Route 29 (VA – Lee Highway)
19 US Route 50 (MD – John Hanson Highway)
20 US Route 50 (VA – Lee Jackson Highway, Arlington Blvd, Fairfax Blvd)
21 US Route 301 (MD)
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=0], SKIP TO Q21 INSTRUCTIONS
THOSE WHO USE CARPOOL, VANPOOL, TRAIN, OR BUS [Q14.5-13(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))**

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):** 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):** 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 *Registered or Eligible* 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 Buspool~~ ***N/A, Not used***	
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	
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 DAYS

DEFINE DMCA (During Most Common Alternate)
Set DMCA using Q23.5-15 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 =
Q23.5, SET DMCA = 5 (Carpool)
Q23.6, SET DMCA = 6 (Casual Carpool / Slug)
Q23.7, SET DMCA = 7 (Vanpool)
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)

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

MODE BEFORE HEARD ABOUT GRH (OTE only)

IF [GRHTYPE(2) AND Q2(01,02,98)], 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 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 Buspool~~ ***N/A, Not used***	
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	
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 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 DAYS

DEFINE BHMCA (Most Common Alternative before respondent heard about GRH - OTE)
Set BHMCA using Q26.5-15 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 =
- **Q26.5, SET BHMCA = 5 (Carpool)**
- **Q26.6, SET BHMCA = 6 (Casual Carpool / Slug)**
- **Q26.7, SET BHMCA = 7 (Vanpool)**
- **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)**

IF TIE FOR MOST DAYS USED, SELECT BHCMA IN THIS ORDER:
VANPOOL, CARPOOL, BUS, VRE, MARC, 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))]

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 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 N/A, Do not use~~	
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	
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 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))]

DEFINE BRALTDAYS (Days using alt modes before registered for GRH (Current, Past)
BRALTDAYS = TOTAL Q29.5-15 DAYS

DEFINE BRMCA (Most Common Alt Mode before registering for GRH (Current, Past)
Set BRMCA using Q29.5-15 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 =
- **Q29.5, SET BRMCA = 5 (Carpool)**
- **Q29.6, SET BRMCA = 6 (Casual Carpool / Slug)**
- **Q29.7, SET BRMCA = 7 (Vanpool)**
- **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)**

IF TIE FOR MOST DAYS USED, SELECT BRCMA IN THIS ORDER:
VANPOOL, CARPOOL, BUS, VRE, MARC, 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 = 9, 10, 11, 12, OR 13, 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 = 9, 10, 11, 12, OR 13, 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 = 9, 10, 11, 12, OR 13, INSERT use transit
IF CMCA, DMCA = 14, INSERT bike
IF CMCA, DMCA = 15, INSERT walk

Q44B. Was any of the 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 = 9, 10, 11, 12, OR 13, 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 *Left blank* → **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 *Left blank* → **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)], 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), 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 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 Did not like GRH trip provider vehicle or driver
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.)**
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 blan*k

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 - $249,000
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 ten $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. 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 10 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 Regional Guaranteed Ride Home (GRH) program. The Metropolitan Washington Council of Governments (COG) is overseeing this survey on behalf of *Commuter Connections* and I'm writing to request your participation.

You will be contacted by telephone within the next few days by 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 <u>even if you are no longer registered in the program and/or have not used a GRH trip</u>. If you have recently taken a GRH trip and completed a feedback survey about that trip, please note that this is a different survey.

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

Sincerely,

Nicholas W. Ramfos
Director, Commuter Connections

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

Dear Sir/Madam:

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

Shown below is the internet link that will take you directly to the Commuter Connections web site where you will log into your account to take the survey. 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 Regional Guaranteed Ride Home (GRH) program. The Metropolitan Washington Council of Governments (COG) is overseeing this survey on behalf of *Commuter Connections* and I'm writing to request your participation.

Shown below is the internet link that will take you directly to the 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 Conculsion	Telephone Survey	
	Number	Percent
Interviews Completed by Telephone	58	2.5%
Answering Machine	1,762	75.7%
No answer	184	7.9%
Callback	125	5.4%
Disconnected	86	3.7%
Wrong Number	29	1.2%
Busy	29	1.2%
Refusal	25	1.1%
Non-Residential	13	0.6%
Needed Person not Available	11	0.5%
Terminated	4	0.2%
Deceased	1	0.0%
Total	2,327	100.0%
Total Dialings	2,327	
Average Dialings Per Complete	40.1	

APPENDIX D
Results from 2022, 2019, 2016, 2013, and 2010 GRH Surveys Comparison on Key Questions

Registration Information

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

	2022	2019	2016	2013	2010
Current registrant	20%	43%	44%	51%	40%
Past registrant	80%	57%	55%	49%	60%
One-time exception	0%	0%	1%	0%	0%

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

	2022	2019	2016	2013	2010
Less than 1 year	3%	10%	11%	15%	12%
1 year	5%	12%	11%	14%	21%
2 years	10%	11%	11%	13%	15%
3 years	10%	8%	9%	9%	9%
More than 3 years	72%	59%	58%	49%	43%

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

	2022	2019	2016	2013	2010
Coronavirus Pandemic Reasons					
Working from home due to pandemic	24%	---	---	---	---
Working from home full-time	17%	---	---	---	---
Other pandemic reason (not specified)	12%	---	---	---	---
Program Related Reasons					
Didn't get around to it, forgot	10%	29%	20%	22%	32%
Didn't know I had to re-register	9%	21%	23%	23%	21%
Had a problem with registering	---	8%	6%	7%	10%
Did not receive reminder	5%	---	---	---	---
Dissatisfied, bad experience	2%	4%	9%	6%	6%
Too much effort to use program	---	1%	2%	3%	0%
Personal Circumstance Reasons					
Changed job/work hours	3%	12%	8%	18%	10%
Never used program	4%	10%	10%	9%	6%
Couldn't CP/VP/use transit 2+ day/week	2%	7%	6%	8%	3%
Moved to different residence/out of area	5%	6%	4%	4%	6%
Needed car for work/other purpose	---	5%	3%	4%	5%
Carpool/Vanpool/Transit didn't work out	---	2%	---	---	3%
Driving to work now	2%	---	---	---	---

GRH Information Sources

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

	2022	2019	2016	2013	2010
Word of mouth – referral	29%	30%	30%	31%	35%
Employer/at work/employee survey	15%	12%	9%	9%	8%
Radio	7%	9%	10%	12%	12%
Internet	4%	8%	11%	9%	14%
Bus/train sign	2%	5%	4%	5%	4%
Other Rideshare/Transit Org	4%	4%	4%	5%	2%
Brochure/promo materials	2%	3%	3%	3%	4%
Direct mail/postcard from CC	2%	3%	<1%	2%	3%
Commuter Connections (other)	3%	3%	4%	3%	2%
Advertisement	3%	2%	4%	2%	3%
Television	---	1%	<1%	<1%	2%
Newspaper/Newsletter	---	<1%	<1%	<1%	3%
Bus/train schedule	1%	0%	<1%	<1%	0%
Other	2%	2%	3%	5%	2%

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

	2022	2019	2016	2013	2010
Heard or saw GRH ad	44%	58%	58%	57%	62%
Registered after hearing ads	26%	37%	37%	39%	38%
Ad encouraged registration	25%	31%	30%	33%	33%

Current Travel Information

- **Current mode split** – Primary mode

Current Registrant	2022	2019	2016	2013	2010
DA/Motorcycle	3%	1%	2%	1%	2%
Bus	22%	29%	30%	31%	27%
Carpool/Vanpool	19%	29%	28%	30%	19%
Commuter Rail	16%	25%	24%	23%	22%
Metrorail	4%	10%	11%	11%	13%
Bike/walk	1%	1%	1%	2%	1%
Telework	35%	5%	4%	2%	1%

Past Registrant	2022	2019	2016	2013	2010
DA/Motorcycle	12%	30%	25%	31%	29%
Bus	5%	17%	19%	19%	19%
Carpool/Vanpool	3%	17%	17%	18%	14%
Commuter Rail	3%	13%	17%	14%	12%
Metrorail	1%	13%	12%	12%	10%
Bike/walk	1%	3%	2%	2%	2%
Telework	75%	7%	7%	4%	3%

- **Average length of commute**

	2022	2019	2016	2013	2010
Distance (miles)	37.0	34.4 mi	35.9 mi	35.4 mi	36.5 mi
Time (minutes)	66 min	67 min	68 min	66 min	67 min

- **Primary Modes "Pre-GRH" vs "During-GRH" (Mode used most days during the week)** – Percentage of all registrants – modes used before registering/participating in GRH and the modes used while registered/participating in GRH

Pre-GRH	2022	2019	2016	2013	2010
Drive alone*	26%	27%	24%	24%	23%
Bus	23%	19%	20%	19%	17%
Carpool/Vanpool	19%	19%	19%	23%	27%
Commuter Rail	16%	18%	19%	18%	15%
Metrorail	11%	14%	15%	14%	16%
Bike/Walk	1%	2%	1%	----	----
Telework	4%	1%	2%	2%	2%

During-GRH	2022	2019	2016	2013	2010
Drive alone*	4%	3%	3%	3%	4%
Bus	25%	28%	29%	30%	27%
Carpool/Vanpool	26%	27%	28%	30%	33%
Commuter Rail	20%	24%	24%	22%	20%
Metrorail	8%	12%	12%	12%	14%
Bike/Walk	1%	2%	1%	----	----
Telework	4%	3%	3%	3%	2%

* Drive alone includes motorcycle, taxi, and ride-hail

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

Pre-GRH	2022	2019	2016	2013	2010
0 days/week	26%	26%	27%	26%	23%
1 day/week	1%	1%	1%	1%	0%
2 days/week	3%	2%	1%	1%	1%
3 days/week	7%	7%	5%	5%	2%
4 days/week	11%	12%	13%	13%	11%
5 days/week	52%	52%	53%	54%	62%
Average days/week	3.3	3.3	3.4	3.4	3.7

During-GRH	2022	2019	2016	2013	2010
0 days/week	3%	2%	1%	1%	2%
1 day/week	8%	2%	2%	1%	1%
2 days/week	12%	6%	5%	3%	2%
3 days/week	17%	17%	15%	11%	6%
4 days/week	17%	23%	24%	24%	22%
5 days/week	43%	50%	53%	60%	67%
Average days/week	3.7	4.1	4.2	4.4	4.4

Influence of GRH on Commute Pattern Decisions

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

	2022	2019	2016	2013	2010
Started using alternative mode	23%	24%	23%	22%	24%
Increased alt mode use (frequency)	2%	3%	3%	3%	4%
Maintained use of alternative mode	72%	71%	73%	74%	67%
No alt mode "with-GRH"	3%	2%	1%	1%	0%

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

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

	2022	2019	2016	2013	2010
n=	291	479	468	479	208
Very important	59%	52%	51%	50%	50%
Somewhat important	27%	27%	29%	30%	30%
Not at all important	14%	21%	20%	20%	20%

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

	2022	2019	2016	2013	2010
n=	26	47	58	70	28
Very important	47%	48%	27%	37%	43%
Somewhat important	27%	26%	37%	38%	39%
Not at all important	26%	26%	36%	25%	18%

- **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	2010
n=	890	1,360	1,459	1,606	678
Very important	52%	47%	45%	43%	46%
Somewhat important	32%	34%	32%	32%	33%
Not at all important	16%	19%	23%	25%	21%

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

	2022	2019	2016	2013	2010
n=	282	463	453	464	204
Very likely	40%	41%	48%	48%	51%
Somewhat likely	41%	39%	34%	34%	33%
Not at all likely	19%	20%	18%	18%	6%

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

	2022	2019	2016	2013	2010
n=	22	42	53	66	42
Very likely	35%	33%	37%	43%	48%
Somewhat likely	42%	40%	40%	41%	28%
Not at all likely	23%	27%	23%	16%	24%

- **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	2010
n=	849	1,298	1,424	1,572	653
Very likely	61%	60%	64%	68%	65%
Somewhat likely	29%	29%	26%	25%	29%
Not at all likely	10%	11%	10%	7%	5%

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

	2022	2019	2016	2013	2010
Save money	9%	8%	8%	10%	13%
Commute ease/flexibility/convenience	5%	5%	7%	8%	9%
Didn't want to drive	4%	5%	5%	3%	9%
Help environment/reduce traffic	2%	4%	6%	5%	2%
Save time	4%	4%	4%	5%	9%
Stress/health/exercise	1%	3%	3%	5%	0%
Parking issues	2%	3%	3%	3%	2%
Other options not reliable	<1%	2%	3%	3%	2%
Save wear and tear on vehicle	2%	2%	2%	3%	4%
Changed job/work hours	<1%	1%	2%	<1%	2%
Moved to different residence	<1%	1%	1%	<1%	0%
Family obligations	<1%	1%	1%	<1%	2%
None	73%	66%	64%	65%	55%

Use of and Satisfaction with GRH

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

	2022	2019	2016	2013	2010
All respondents	40%	37%	33%	31%	33%
By Registration Status					
- Current registrants	39%	39%	36%	33%	35%
- Past registrants	40%	30%	27%	25%	27%
By Mode Used "During-GRH"					
- CP/VP	---	----	----	-----	41%
- Vanpool	49%	47%	44%	39%	-----
- Carpool	52%	45%	44%	34%	-----
- Bus	39%	41%	35%	31%	35%
- Commuter rail	35%	34%	32%	31%	29%
- Metrorail	30%	21%	18%	22%	19%

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

	2022	2019	2016	2013	2010
Illness (self)	33%	35%	32%	33%	29%
Illness of family member	29%	21%	27%	21%	21%
Illness of child	11%	15%	16%	19%	20%
Unscheduled overtime	13%	14%	12%	15%	14%
Other personal emergency	9%	11%	9%	9%	11%
Missed carpool/vanpool	2%	2%	<1%	1%	2%
Other	3%	2%	4%	2%	3%

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

	2022	2019	2016	2013	2010
5 minutes or less	15%	29%	28%	23%	26%
6 – 10 minutes	22%	28%	28%	28%	27%
11 – 20 minutes	34%	28%	29%	33%	32%
21 – 30 minutes	18%	8%	9%	9%	7%
31 – 45 minutes	4%	3%	2%	2%	2%
46 or more minutes	7%	4%	4%	5%	7%
Average (minutes)	19 min	14 min	15 min	16 min	17 min

- **Improvements desired to GRH Program ***

	2022	2019	2016	2013	2010
None needed	9%	19%	14%	12%	22%
More advertising	3%	9%	10%	11%	7%
Relax conditions/supervisor approval	2%	5%	4%	7%	----
Notify when time to re-register	1%	5%	3%	4%	1%
Easier/faster approval	2%	3%	2%	1%	3%
Quicker response for ride requests	<1%	2%	3%	2%	3%
More direct, faster service home	<1%	2%	3%	----	----
Wider area for trips	1%	1%	1%	<1%	1%
Allow more trips per year	1%	2%	1%	<1%	1%
Better communication with drivers	1%	1%	<1%	1%	2%
Extend the hours	1%	1%	<1%	2%	2%
Don't require registration	<1%	<1%	<1%	<1%	3%
Better directions/info on how to use	3%	---	<1%	2%	----
Other	3%	2%	5%	5%	3%
Don't know/no suggestions	75%	49%	55%	58%	49%

* Multiple responses permitted

Demographics

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

Residence	2022	2019	2016	2013	2010
District of Columbia	2%	2%	2%	2%	1%
Maryland	40%	41%	40%	36%	32%
Virginia	55%	55%	55%	60%	65%
Other/Refused	3%	2%	3%	2%	2%

Employment	2022	2019	2016	2013	2010
District of Columbia	64%	63%	64%	61%	63%
Maryland	15%	16%	15%	11%	11%
Virginia	21%	21%	21%	28%	26%
Other/Refused	0%	0%	0%	0%	0%

- **Income** – all respondents

	2022	2019	2016	2013	2010
Under $40,000	2%	1%	1%	1%	2%
$40,000 – $59,999	2%	4%	4%	5%	6%
$60,000 – $79,999	7%	9%	7%	10%	12%
$80,000 – $99,999	9%	11%	13%	13%	14%
$100,000 – $119,999	14%	15%	18%	18%	16%
$120,000 – $139,999	11%	14%	15%	16%	15%
$140,000 – $159,999	13%	11%	11%	12%	13%
$160,000 – $179,999	11%	8%	8%	8%	8%
$180,000 or more	31%	27%	23%	17%	14%

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

	2022	2019	2016	2013	2010
Hispanic	6%	6%	5%	5%	5%
Non-Hispanic White	62%	61%	70%	73%	68%
Non-Hispanic Black	20%	22%	17%	16%	20%
Asian	9%	8%	6%	6%	7%
Other/Mixed race	3%	3%	2%	0%	0%

- **Gender** – all respondents

	2022	2019	2016	2013	2010
Female	46%	46%	47%	48%	47%
Male	54%	54%	53%	52%	53%

- **Age** – all respondents

	2022	2019	2016	2013	2010
18 – 24	<1%	<1%	<1%	<1%	<1%
25 – 34	4%	7%	7%	9%	9%
35 – 44	19%	20%	18%	20%	23%
45 – 54	31%	33%	35%	39%	41%
55 – 64	39%	34%	34%	27%	25%
65 or older	7%	6%	5%	5%	3%