CITY OF VAUGHAN: SHARED MICRO-TRANSIT PILOT SUMMARY REPORT

SUBMITTED BY:

LEFT TURN RIGHT TURN LTD AND

LURA CONSULTING

To the attention of:

City of Vaughan

August 2023

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TABLE OF CONTENTS

TABLE OF FIGURES

1 INTRODUCTION

1.1 PROJECT BACKGROUND

The shared micro-transit pilot also known as the Rutherford-Maple GO Mobility On-Request (MOR) pilot is a collaboration between the City of Vaughan, York Region Transit (YRT) and Metrolinx to provide on-demand micro-transit service for residents travelling to/from Rutherford and Maple GO stations. The pilot was funded by the Federation of Canadian Municipalities (FCM) through the Green Municipal Fund (GMF) which supports pilot projects that help Canadian cities reduce their environmental impacts.

In 2020, the City of Vaughan completed a feasibility study that recommended the implementation of a one-year micro-transit pilot to reduce reliance on the drive-and-park mode at Rutherford GO station. The initial driver for the pilot was to mitigate parking challenges and congestion due to several major construction projects planned at and around Rutherford GO station. The micro-transit pilot was delayed due to the COVID-19 pandemic and was ultimately executed after construction around Rutherford GO station was largely complete. As such, the pilot aimed to assess the viability and uptake of micro-transit services more broadly in the City of Vaughan and test its ability provide residents with equitable access, encourage mode shift, and reduce greenhouse gas (GHG) emissions.

The City of Vaughan retained Left Turn Right Turn in collaboration with LURA Consulting to provide project management oversight and support for operations and communications with stakeholders, the public, and customers. The Rutherford-Maple GO Mobility On-Request (MOR) pilot service was launched on May 2, 2022, and was delivered through a service contract with YRT.

1.2 PILOT QUALIFICATION AND SERVICE AREA

Interested participants were required to complete a sign-up survey to determine their eligibility. In order to qualify for the service, the participants were required to live within the service area, have access to a cell phone, and travel to Rutherford GO and/or Maple GO. Qualified participants were able to use YRT's Mobility On-Request application to book a YRT-operated vehicle to pick them up from their location and get dropped off at their desired GO station. The Ride to GO program[1] ensured that the trip was free for customer so long as they connected to GO train service using a PRESTO card. The same service was provided in the evening to return from the GO station. The year-long pilot provided service for residents within the service area travelling to/from the two GO stations during peak periods between 6 a.m. to 9 a.m. and 3:30 p.m. to 6:30 p.m.

[1] Ride to GO lets customers travel on YRT for free when showing proof-of-payment for a trip on GO Transit. Ride to GO is available on any YRT and contracted TTC route in York Region travelling to or from GO Transit services. Customers must use a PRESTO card, credit or debit card, or valid GO Transit fare to use this fare integration.

As shown in the figure below, the pilot feasibility study recommended an initial service area that would serve a population of 244,000 across both Rutherford GO and Maple GO.

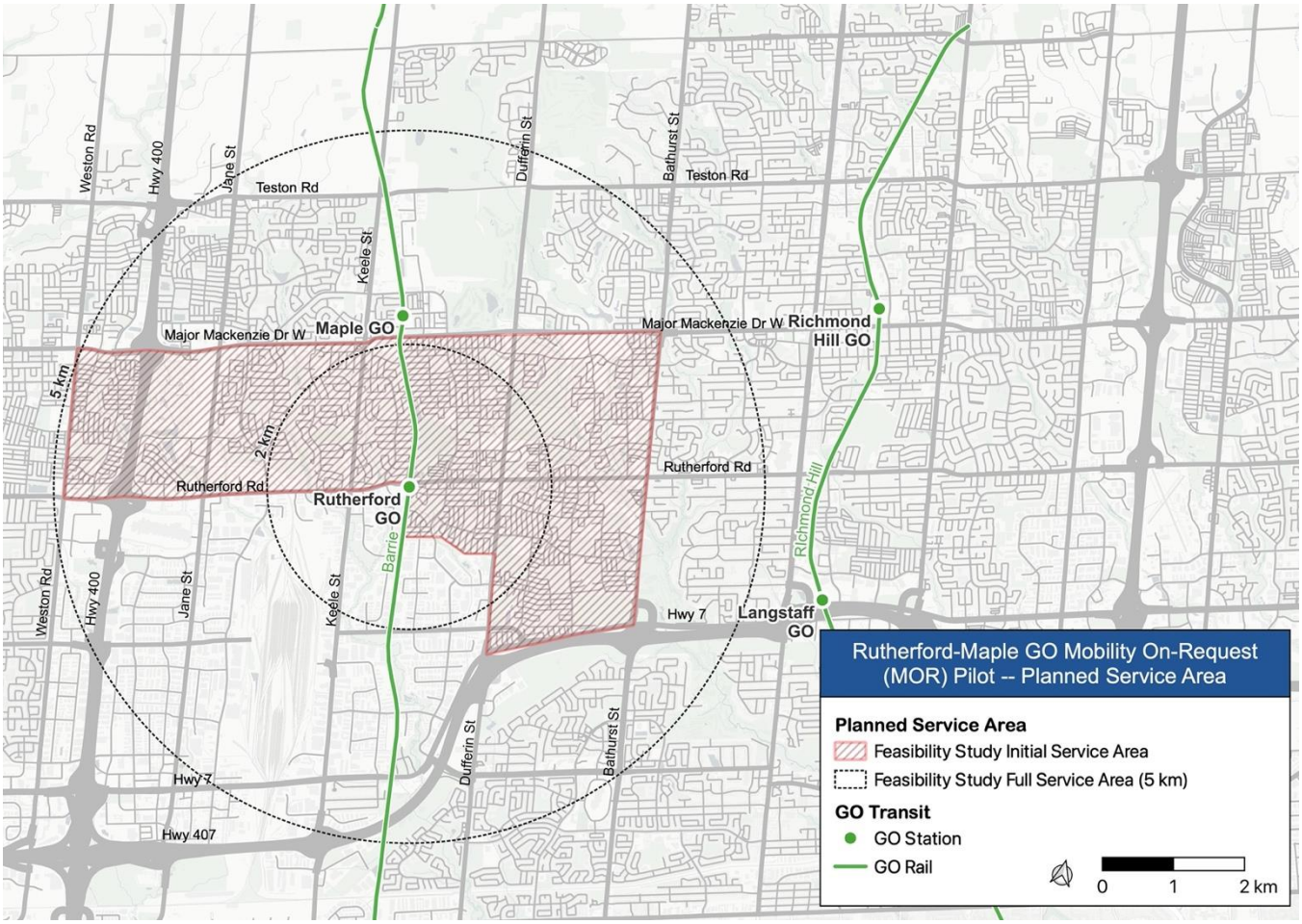

FIGURE 1. PLANNED MOR PILOT SERVICE AREA FROM THE FEASIBILITY STUDY REPORT

However, given the ridership challenges that the MOR service was experiencing at other stations as a result of the COVID-19 pandemic, the decision was made to start the pilot service with a smaller service area than proposed in the feasibility study. The figure below shows the service area implemented during the pilot.

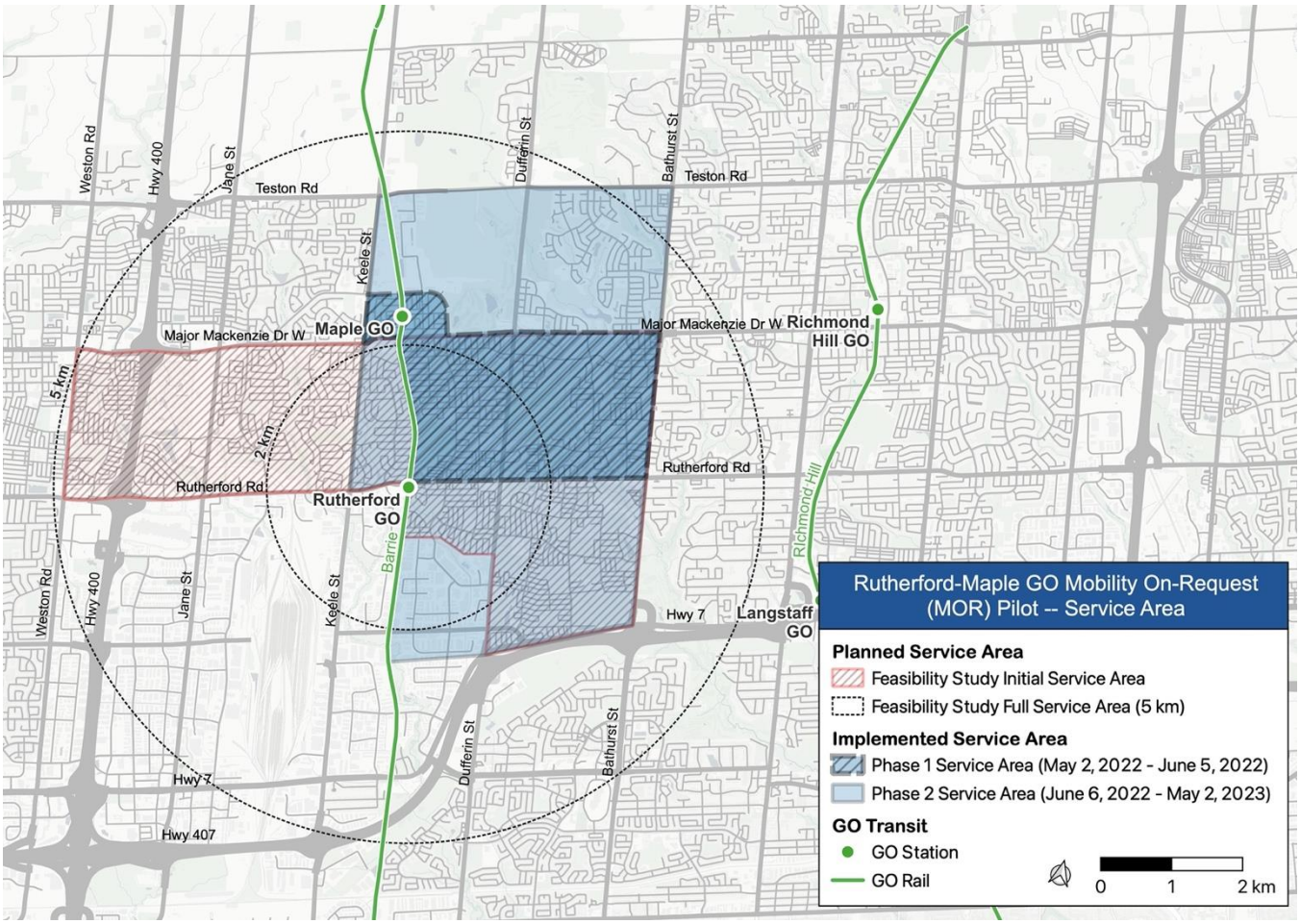

FIGURE 2. PLANNED AND IMPLEMENTED MOR PILOT SERVICE AREA

This 'Phase 1' service area was then expanded to increase ridership with a goal of serving the full area identified in the feasibility study by the end of the pilot. However, due to challenges with further construction along Rutherford Road and Major Mackenzie Drive, operator shortages and vehicle availability, the decision was made to set the 'Phase 2' service area as the final area to be served for the remainder of the pilot. Efforts were also focused to maximize ridership through communication and promotion of the service to pilot participants within the existing service area.

1.3 GOALS

The MOR pilot was designed to provide a sustainable travel alternative to commuters using Rutherford GO and Maple GO stations to positively impact *the broader society, the environment, and the economy*. Specifically, the pilot sought to provide an attractive and sustainable solution to reduce parking demand at the stations, support the reduction of the city's GHG emissions and reduce vehicle traffic around both stations. In response to the reduced transit usage during the COVID-19 pandemic, the pilot also aimed to encourage transit usage by providing an attractive first/last mile solution.

As such, the pilot team established five goals within the three broader lenses to monitor the pilot progress, evaluate the pilot performance, and adjust accordingly. These lenses and their associated goals are described in detail below.

1.3.1 Societal and Customer Lens

The pilot sought to expand the first/last mile choices for GO commuters by providing on-demand service during peak travel times. The service was designed to help alleviate the challenges navigating the large and crowded parking lot when commuters arrive and depart from the station while maintaining a high degree of flexibility and mobility independence. By providing a quality service, the pilot also aimed to build customer relationships and better understand the market for new public transit services. Specifically, the pilot aimed to:

- Test the viability and potential market of providing shared micro-transit service.

The social impacts were measured through monitoring metrics which included ridership data and customer experience surveys to gauge customer perception of the pilot. Trends in perceived customer interest and realized ridership were also compared to evaluate whether the service met the needs of the community and validated a potential market for a micro-transit service.

1.3.2 Environmental Lens

A primary driver of the pilot was to support low-carbon mobility options to reduce the city's GHG emissions and encourage a long-term mode shift away from single-occupant vehicle travel. The pilot goals included:

- Enabling equitable access to transportation, reduce dependence on single-occupant vehicles and support low-carbon mobility options; and
- Determining the best practices for encouraging mode shift away from driving to shared micro-transit.

The dedicated micro-transit service provided a first/last mile solution and aimed to reduce the reliance on the drive-and-park travel mode. The nature of customers all travelling to-or-from one of only two destinations in the community made pooling users an effective option to further reduce the need for single-occupant vehicles. Monitoring metrics such as vehicle kilometers saved through linked trips to pool customers were used to monitor this goal throughout the pilot. To understand best practices in encouraging mode shift, customer surveys were used to assess the impact the MOR service had on travel behaviour and peoples' preference on mode choice when travelling to the GO stations.

1.3.3 Economic Lens

In addition to societal and environmental impacts, the pilot aimed to provide a financially sustainable solution to address first/last mile transportation for commuters. Specifically, the pilot goals related to the economic lens consisted of:

- Providing an economical means for the city to enable first/last mile transportation options for commuters who use Rutherford GO and Maple GO stations; and
- Estimating potential economic benefits to both users and to wider society

Further, the pilot strived to provide economic benefits through free rides to the GO stations (through the Ride to GO program), reduced congestion around the station and travel time-savings. Economic impacts of the MOR pilot were evaluated using monitoring metrics such as ridership and financial data.

1.4 STAKEHOLDERS AND COMMUNICATION

Communication and outreach played an important role in promoting the pilot project to build awareness and encourage adoption of this micro-transit service. The project team applied a Community-Based Social Marketing methodology to encourage participation in the pilot. The methodology included the following elements:

- Identifying barriers and benefits that influenced transportation decision-making;
- Identifying desired behaviours to encourage mode shift;
- Developing a service communication and outreach strategy; and
- Testing approaches to attain feedback and adjust the pilot accordingly.

The Community-Based Social Marketing methodology applied in this pilot is further detailed in Appendix B.

1.4.1 Stakeholders and Audiences

The pilot program involved collaboration between multiple agencies to reach the target audiences. Pilot implementation stakeholders included several government agencies and organizations involved in transit delivery in Vaughan. These included:

- City of Vaughan: Provided project oversight to ensure alignment with the pilot goals set out in the FCM funding grant and coordination of the service. Staff from the city's corporate communications division implemented communication and outreach approaches through city communication channels.
- York Region Transit: Responsible for providing conventional transit and accessible paratransit services throughout York Region including in the City of Vaughan. Operated the pilot program service and contributed to the promotion of the service through its existing Mobility On-Request and social media communication channels.

- **Metrolinx:** Operates GO Transit, the regional public transit service providing train and bus service throughout the Greater Toronto and Hamilton Area (GTHA), including regional GO Rail services at Rutherford GO and Maple GO stations. Metrolinx supported the promotion of the service through its own communication channels and assisted the pilot team during station activation activities.

The pilot project identified two target audiences for outreach and engagement, these were:

- **Primary Audience:** Frequent GO Train riders that drive alone to Rutherford GO and/or Maple GO from the MOR service area[2] (e.g., daily, or weekly users); and
- **Secondary Audience:** Residents within the MOR service area[2] who are infrequent and potential GO Train users (e.g., less than weekly), or whose regular destinations are within walking distance of the GO stations.

1.4.2 Communication and Outreach Approaches

Throughout the pilot, the project team deployed a variety of communication and outreach approaches to reach the target audiences, including:

- **Mailing List Outreach:** Qualified participants received regular communication about pilot updates by email.
- **Social Media (Organic):** The City of Vaughan and YRT shared regular social media posts on Twitter with key messages about how to sign-up and use the pilot, as shown in the figure below.
- **Social Media (Paid):** One (1) paid social media campaign was implemented at the 5-month mark (September 2022) to raise awareness about the pilot at a crucial point when return to in-person work and back-to-school presented the opportunity for audiences to consider using the pilot.
- **Station Activation Events:** Eighteen (18) station events were held during morning and evening rush-hour periods to intercept GO train riders. As shown in the figure below, staff distributed informational postcards about the service and answered questions.
- **MOR Service Area Mail Outs:** Two (2) mailout project postcards were sent to every residential address in the MOR service area[2].
- **Station Posters:** Station posters were installed on notice boards at both Rutherford GO and Maple GO stations.
- **Temporary Roadside Billboards:** Temporary roadside billboards were installed near the entrances at GO station parking lots during September 1 to 30 in 2022 to raise awareness about the pilot and encourage people who drive to consider trying the pilot.

[2] From March 2022 to June 2022, the MOR service area refers to the Phase 1 Service Area. From June 2022 onwards, the MOR service area references to Phase 2 Service Area.

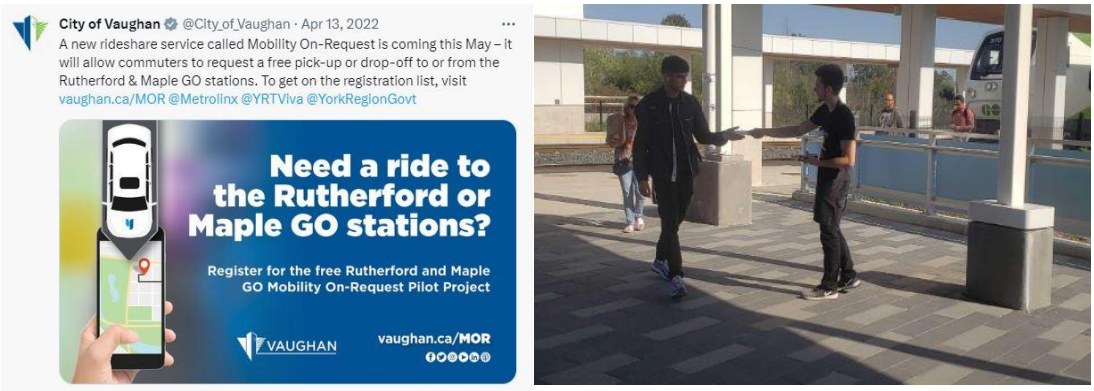

FIGURE 3. TWITTER POST (LEFT) AND STATION EVENT (RIGHT) PROMOTING THE PILOT.

Additionally, three user experience surveys were conducted at the 3-month (July 2022), 9-month (February 2023), and 12-month (May 2023) intervals from the start of the pilot.

- Survey #1 (July 2022): This survey focused on understanding the customer experience of early pilot implementation to identify initial user experience challenges and gather additional insights on travel behaviour.
- Survey #2 (February (2023): This survey focused on benchmarking the user experience evolution since Survey #1. This survey further explored participant travel behaviour in winter and travel behaviour in response to increasing return to in-person work resulting from COVID-19 recovery.
- Survey #3 (May 2023): The final survey focused on understanding customer reflections on the pilot overall, areas of improvement, and opportunities for expansion or application elsewhere.

1.5 PILOT TIMELINE

The success of the pilot project hinged on identifying key milestones and activities prior to the service launch, and throughout the course of the pilot. Prior to the pilot launch, communication and engagement activities were implemented strategically to generate interest and solicit participants. A combination of in-person station activation events, postcard distribution, and social media posts were employed leading up to the pilot launch. Throughout the course of the pilot, the service was further promoted to attract new users through a combination of additional station activation events, postcard distribution, signage, social media posts, and regular email communications with qualified participants. Larger engagement activities were held in September 2022 to target the anticipated new users during the back-to-school period and in early 2023 to remind the residents of the service following the winter holidays. An incentive program was launched to encourage ridership during the last quarter of the pilot to encourage new participants to try the service. Key milestones for the pilot are summarized in the figure below.

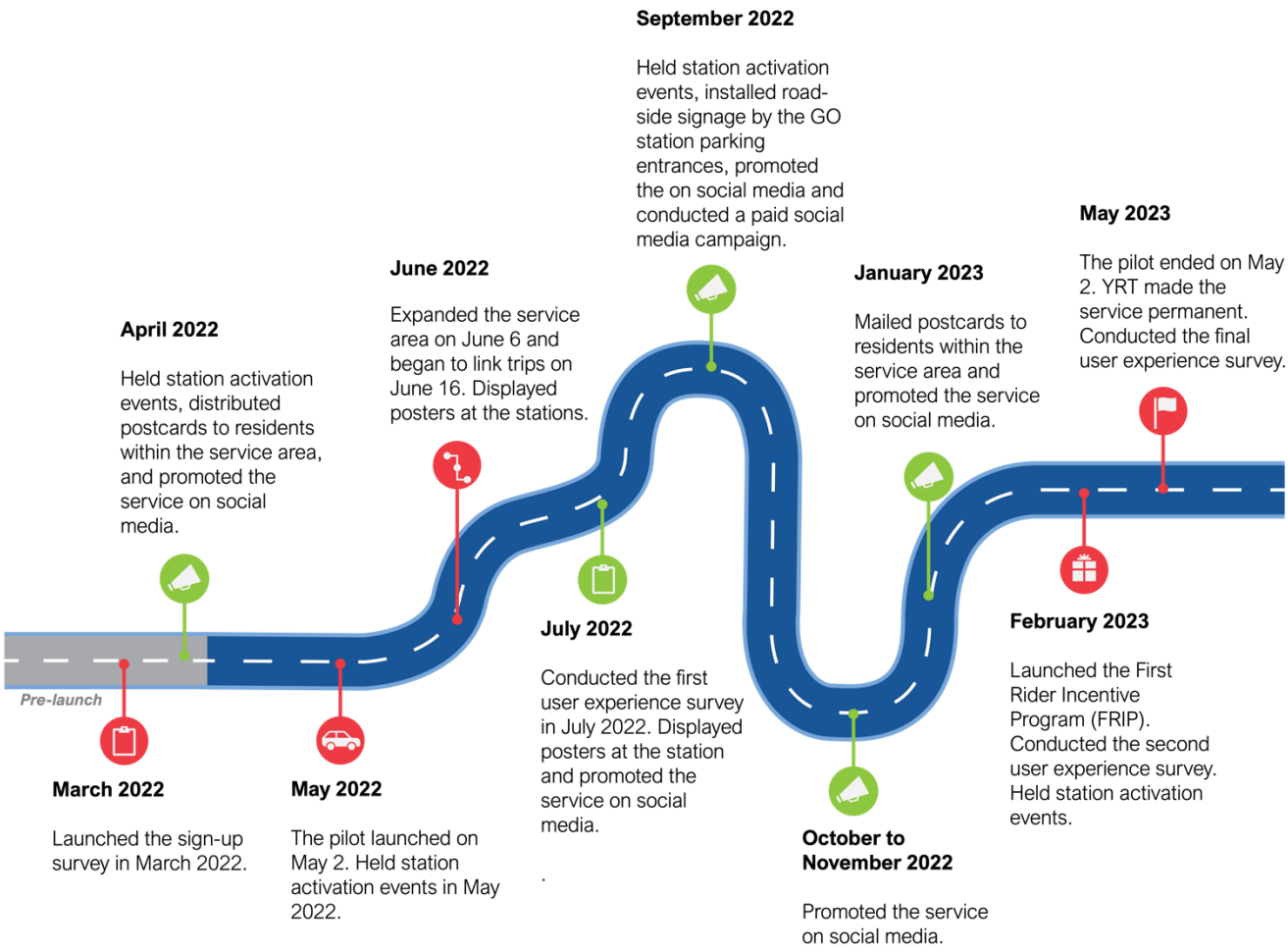

FIGURE 4. PILOT MILESTONES.


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2 PILOT EVALUATION

Throughout the course of the MOR pilot, performance was monitored and opportunities to improve the service were identified. Customer service information and available operational data were used to identify and mitigate operational challenges and improve customer communications. The overall feasibility of pilot was also evaluated to assess the viability of micro-transit services more broadly in the City of Vaughan and understand how MOR services can be successfully replicated to support public transit in other locations.

Based on the established goals of the pilot, specific metrics were measured to assess the MOR service from three perspectives:

- The customer – The MOR pilot was designed to offer an attractive and sustainable alternative mode of travel for commuters travelling to/from Rutherford GO and Maple GO stations. Metrics such as wait time, customer satisfaction, and ridership were used to monitor operations and propose future enhancements.
- The City – While the pilot received funding through the FCM Green Municipal Fund, it provided an opportunity to assess the financial requirements of the solution to provide first/last mile option to commuters. Metrics such as operating cost and productivity were used to evaluate the cost-effectiveness of the service.
- Wider society – Metrics for the wider impacts of the service on the community were monitored to support long-term decision-making. These included change in Vehicle Kilometers Travelled (VKT), reduction in greenhouse gas emissions, and modal shift.

In order to evaluate various pilot metrics, customer and operational data were collected and analyzed throughout the pilot. Customer information was obtained through surveys, in-person events at stations and through general email and phone inquiries. Operational data was obtained from YRT through daily reports generated by the micro-transit software that measured various metrics for all trips requested and completed, a summary of which can be found in Appendix C. The results of the pilot enabled the project team to understand the societal, environmental, and economic performance of a micro-transit service in the City of Vaughan.


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3 PILOT RESULTS

The MOR pilot was successful in attracting over 1000 interested participants for the service. Interested participants were required to complete a sign-up survey, which was assessed by the project team to qualify participants into the pilot. In order to qualify for the service, participants had to live within the service area, have access to a cellphone and travel to Rutherford GO and/or Maple GO. Of those who completed the sign-up survey, about 61% qualified to participate in the pilot. With over 4500 trips delivered in hybrid vehicles, the pilot was successful in reducing up to 16% of emissions through the combination of a green fleet and linked trips[3]. At the conclusion of the pilot, YRT decided to permanently continue the service as part of its Mobility On-Request on-demand services. An overview of the pilot results is presented in the figure below.

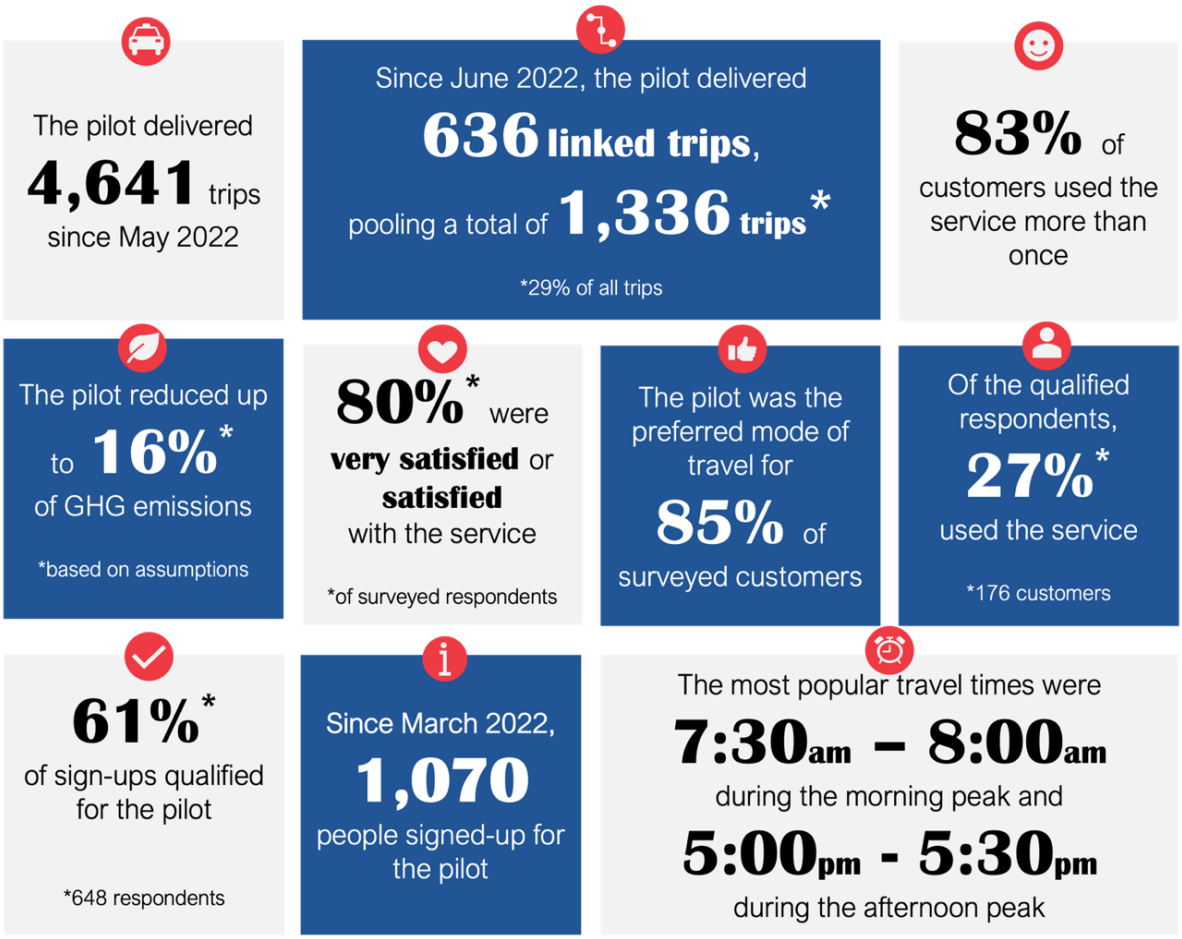


FIGURE 5. OVERVIEW OF PILOT PERFORMANCE

While the pilot generated great public interest in the service, only 27% of those who signed up and qualified took at least one trip throughout the course of the pilot. The low ridership was primarily due to the rapid adoption of remote work and education programs during the COVID-19 pandemic which significantly

[3] Linked trips pooled multiple customers travelling to nearby locations to reduce the number of single-occupancy vehicle trips to/from the GO stations thereby reducing the overall VKT. This is further discussed in Section 3.2.1.

depressed GO Transit ridership across the network. However, of those who did use the service, the pilot garnered positive feedback among customers, scoring highly in both satisfaction as well as interest in continuing to use the service as a preferred mode of travel. Of those who were surveyed, 85%[4] of respondents who have used the service indicated that the pilot service was their preferred method of travel. Furthermore, throughout the pilot, users were generally very satisfied with their travel experience with over 70% of users consistently scoring elements such as drop-off, safety, driver interactions, and ease of payment as "Excellent" or "Very Good". The following sections provide greater detail of the pilot performance and discusses the societal, environmental, and economic impacts of the pilot.

3.1 SOCIETAL AND CUSTOMER IMPACTS

The MOR pilot was designed to offer an attractive and sustainable alternative mode of travel for commuters travelling to/from Rutherford GO and Maple GO stations. A key goal of the pilot was to provide a first/last mile option and test the viability of a micro-transit service in the City of Vaughan. The service also strived to provide equitable and accessible access to all customers within the Rutherford-Maple GO service area.

In order to assess the societal and customer impacts of the pilot project, various metrics, including demand for the service, were evaluated to assess whether the pilot service was able to change the travel behaviour. Metrics used in this evaluation included perceived interest in the service, realized ridership, repeat users, customer satisfaction, peak ridership times, preferred stations, changes in travel behaviour among others. The assessment of these metrics throughout the pilot informed communication strategies to promote the service. The following sections discuss the findings of the evaluation and outcome of the communication strategies in further detail.

3.1.1 Interest in the Service

A sign-up survey was used primarily to understand the potential level of interest in the service and to determine who would qualify for the service. Once the service began operating, the level of interest was compared against the realized ridership. The sign-up survey was launched in March 2020 (two months before the pilot launch) and was open to the public throughout the course of the pilot. Various communications and promotions were conducted in the month of March to encourage residents to complete the survey and sign-up for the service.

Responses for the sign-up survey were regularly monitored and those that met the qualification criteria (as described in section 1.2) were sent a welcome package that provided instructions on how to use the service. Respondents who met the criteria and had indicated they will be travelling with a child or are unable to travel in a sedan were contacted and provided with special accommodations for their trips. Due to the extensive communication and marketing efforts in March 2022, interest in the service peaked in the

[4] Of the 90 people who completed the survey, 48 people had used the service at least once. Of these 48 users, 85% (41 users) preferred the pilot service as their mode of travel.

month following the sign-up survey launch. However, sign-ups began to decrease in May and continued to dwindle throughout the summer.

In September 2022, the second round of station-based marketing resulted in an uptick of interest during the back-to-school period. However, interest in the service dwindled during the winter months. At the end of January, the last round of station-based marketing activities took place. These activities, alongside the general trend of returning to in-office work and school resulted in a spike of sign-ups in February, many of which were qualified and began to use the service. The figure below outlines the results of the sign-up survey throughout the course of the pilot.

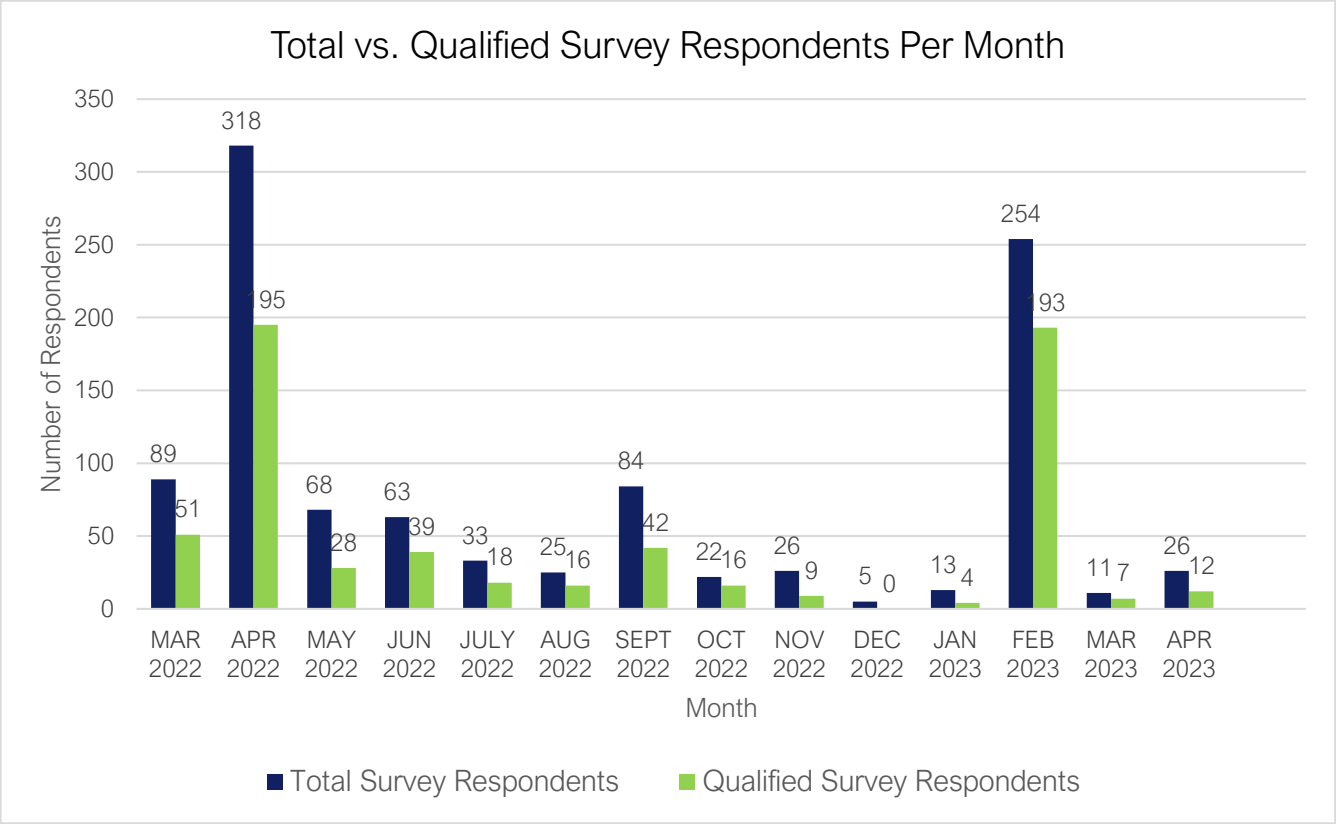


FIGURE 6. COMPARISON OF TOTAL INTERESTED RESPONDENTS AND QUALIFIED RESPONDENTS PER MONTH

Public engagement at key points in the pilot (e.g., service launch, expansion, fall promotions) resulted in an increased awareness of the service throughout the course of the pilot. Although there was an observed uptick in the number of interested participants following postcard mailouts across the service area, participants that used the service indicated that that the promotional activities at the GO stations including in-person events and poster were more effective. In person engagements at the GO stations with direct interaction with frequent GO train riders were the most effective form of promotion. This was reflected in a survey where 70% of the surveyed respondents indicated that it was very effective or effective. Posters at the GO station, targeted social media ads, and curbside display boards were also successful as they directly targeted the primary audience for the service. While these marketing and communication efforts led to small spikes in ridership, the overall ridership of the service remained low. The following figure summarizes the effectiveness of promotional materials on soliciting users for the service.

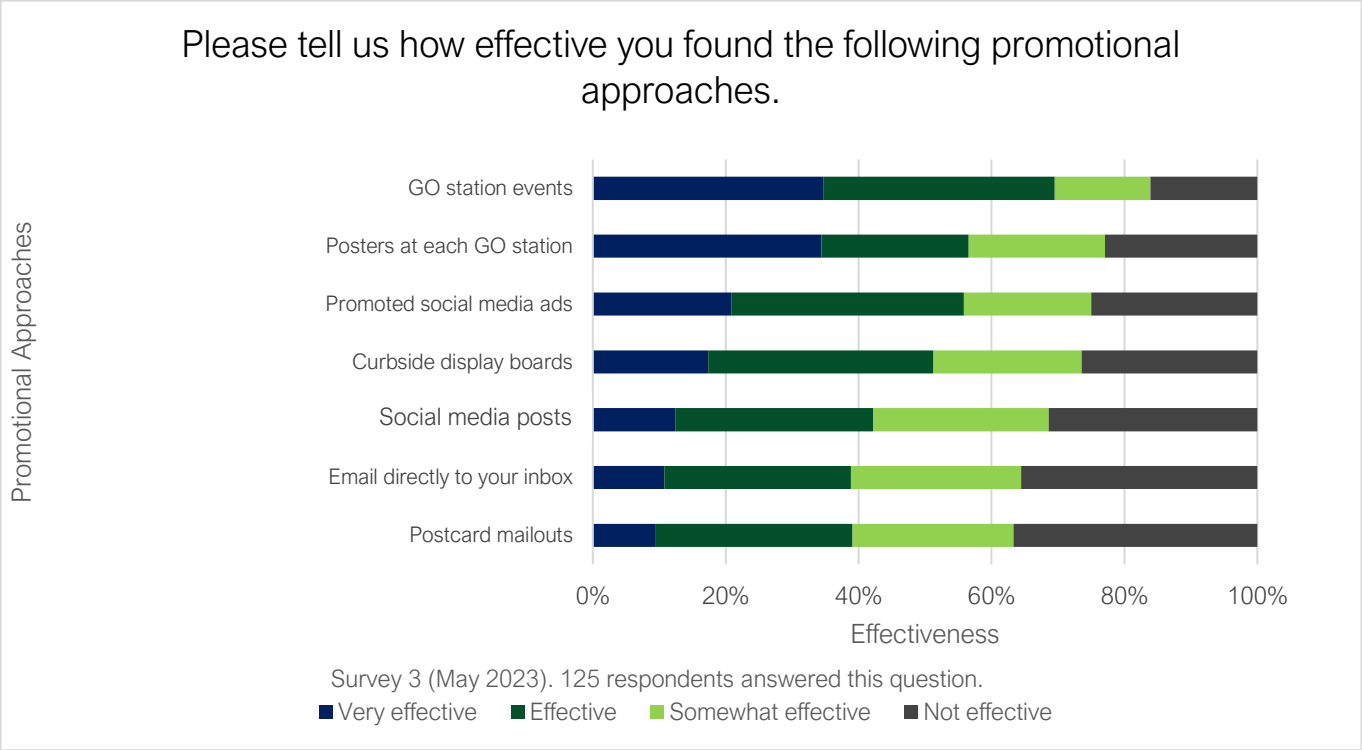


FIGURE 7. EFFECTIVENESS OF PROMOTIONAL APPROACHES

3.1.2 Realized Demand for the Service

Ridership is a key indicator of a transit service's success. Understanding the conversion of those who signed up for the service to those who used the service during the pilot is an important measure of the effectiveness of the service. Ridership for the pilot was tracked using the automatically generated daily reports from the MOR micro-transit system. Based on ridership data, approximately 27% of qualified survey participants used the service at least once, resulting in an overall ridership of 4,641 trips among 176 unique customers between May 2022 and May 2023.

While service only operated on weekdays, midweek travel on Tuesdays, Wednesdays and Thursdays proved to be the most popular. On average, the service provided 18 trips per day using three vehicles, resulting in an average utilization of 3.5 passengers per hour. The figure on the following page highlights some important metrics and achievements of the service.

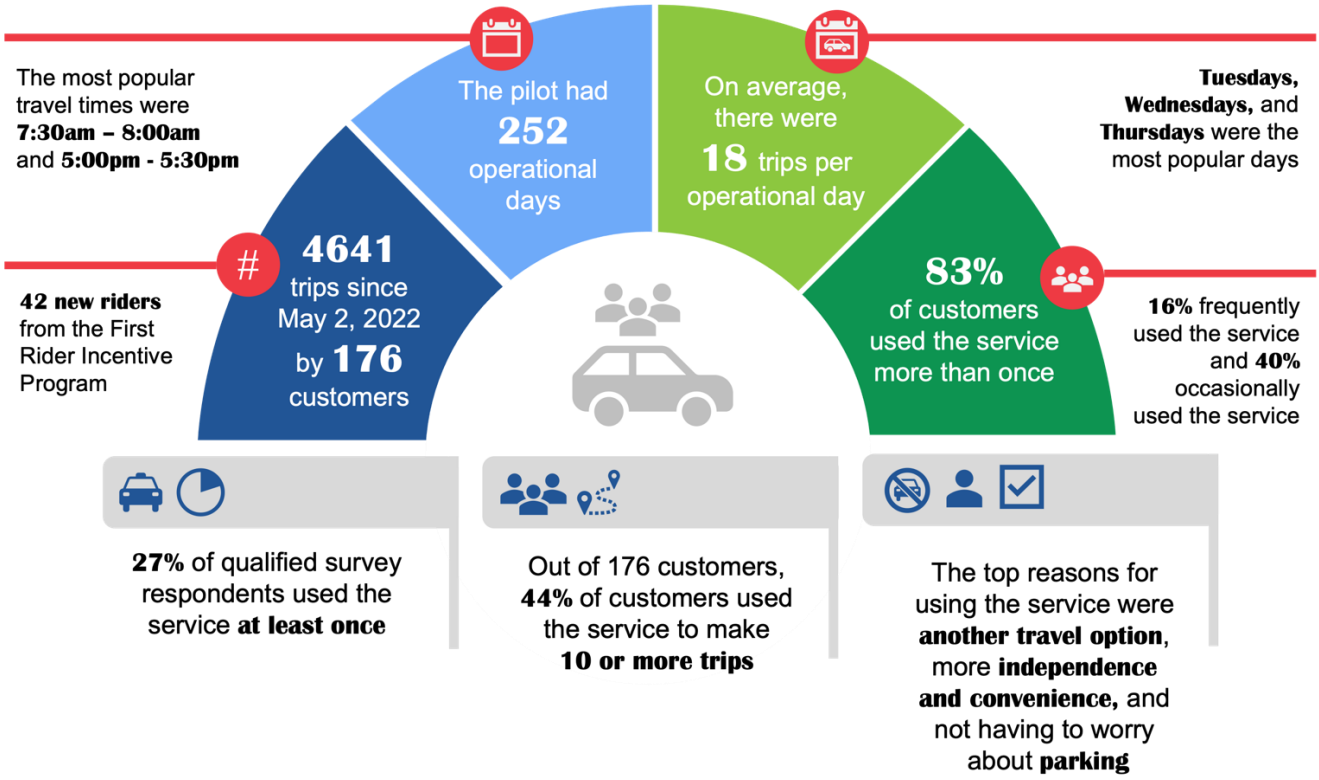


FIGURE 8. PILOT PERFORMANCE OF RIDERSHIP AND DEMAND

Ridership was monitored throughout the pilot as shown in the figure below. Ridership was low in the first month of the service despite the high interest among residents. To increase ridership, the service area was expanded on June 6 to respond to the interest within the surrounding neighbourhoods. Respondents that had initially qualified for the service were informed of the service area expansion as well. However, the service expansion did not result in a significant increase in ridership.

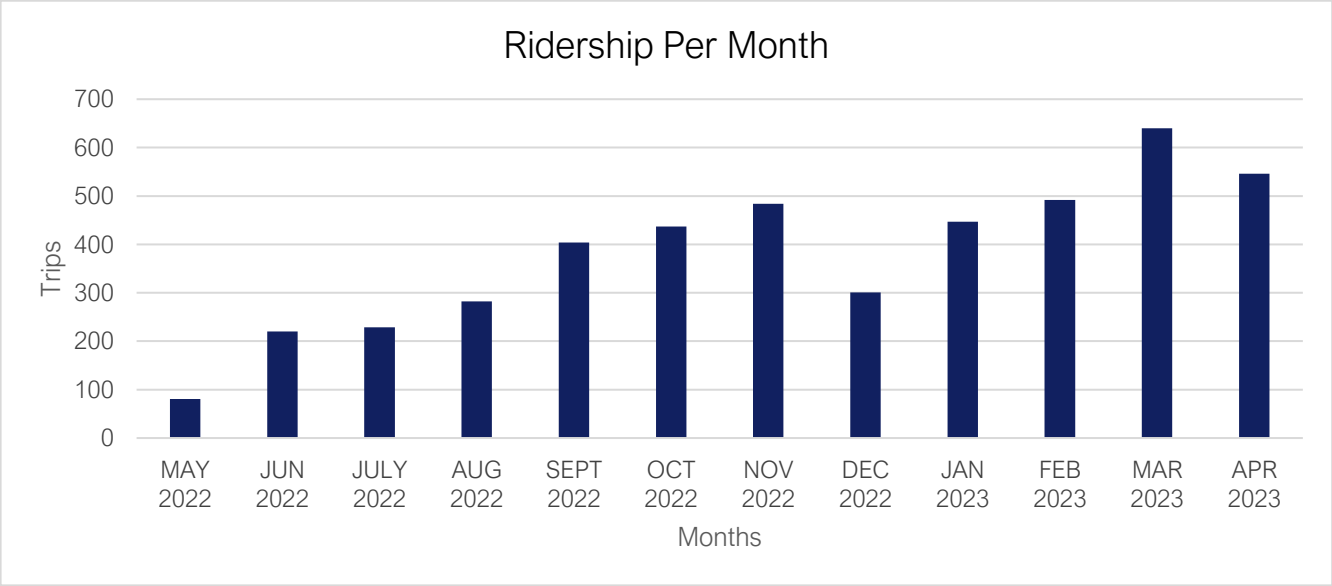


FIGURE 9. RIDERSHIP TRENDS PER MONTH

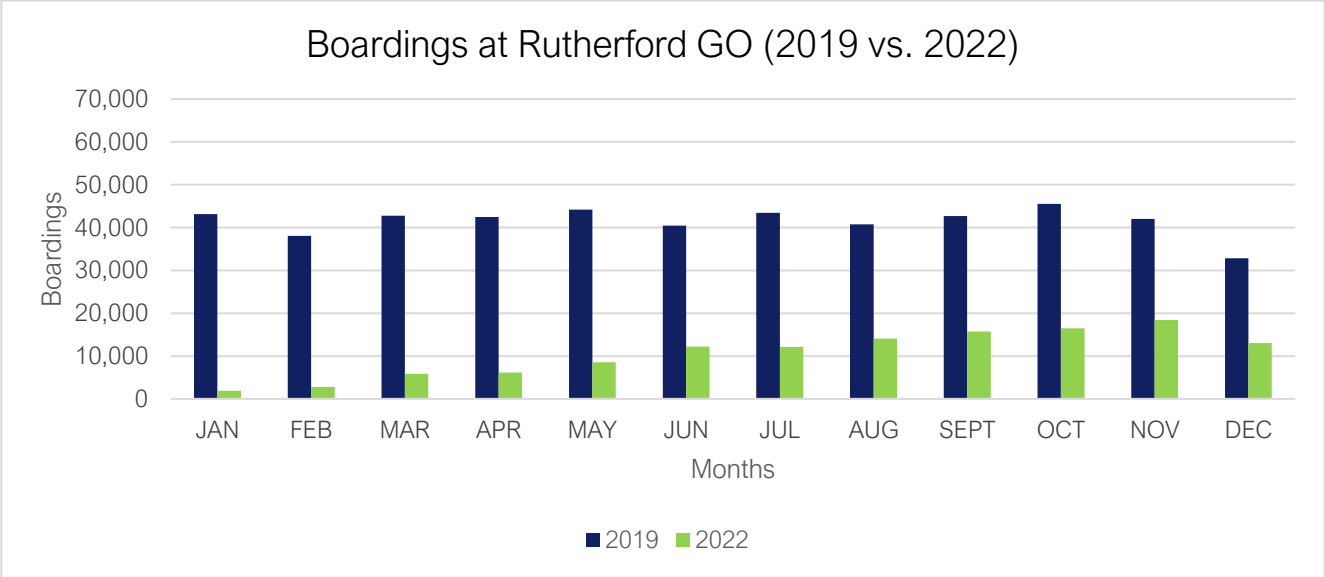
The service saw a spike in ridership between August to September in 2022 in relation to many residents going back to work and school. The project team used targeted marketing during this time to promote the service to maximize ridership. Ridership dwindled again in December as overall GO ridership dropped during holidays.

To encourage ridership in the last four months of the pilot, increased marketing and the First Rider Incentive Program (FRIP) was conducted. Those who qualified and booked their first ride during the month of February or March were entered into a prize draw. The incentive program in addition to continued marketing efforts through station activations and social media resulted in the highest ridership of the service in March. This also led to 42 new riders, which increased the number of unique riders of the pilot by 30%. Although sign-ups dwindled in the last two months of the pilot, ridership continued to increase as pandemic restrictions lifted and return-to-office requirements became more commonplace.

3.1.2.1 IMPACT OF GO RIDERSHIP ON MOR PILOT RIDERSHIP

The overall pilot ridership was closely aligned with the total ridership at both Rutherford GO and Maple GO stations. In 2022, GO ridership averaged about 23% of the 2019[5] pre-pandemic ridership at both stations. The figures below show the change in GO ridership at Rutherford GO and Maple GO stations from 2019 to post-pandemic recovery in 2022. As shown in the figures below, post-pandemic GO ridership continued to increase over the span of year, however it remained a fraction of pre-pandemic levels due to the increase in work-from-home and hybrid work models.

[5] Calculated based on ridership data from January to September, provided by Metrolinx for Maple GO and Rutherford GO stations.



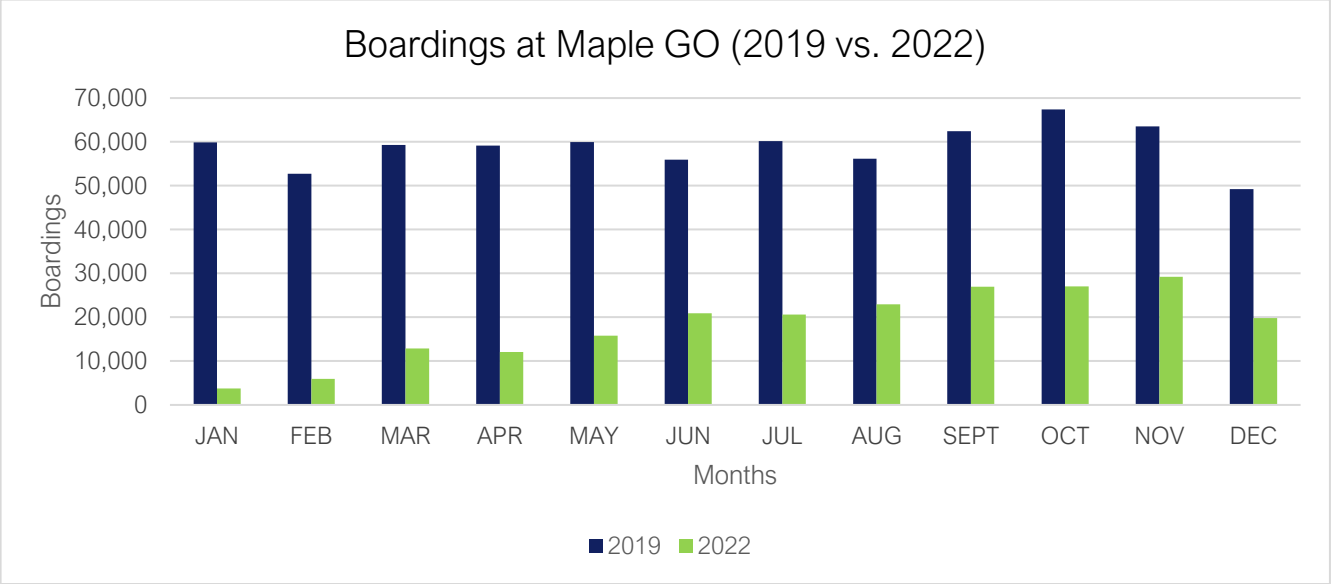
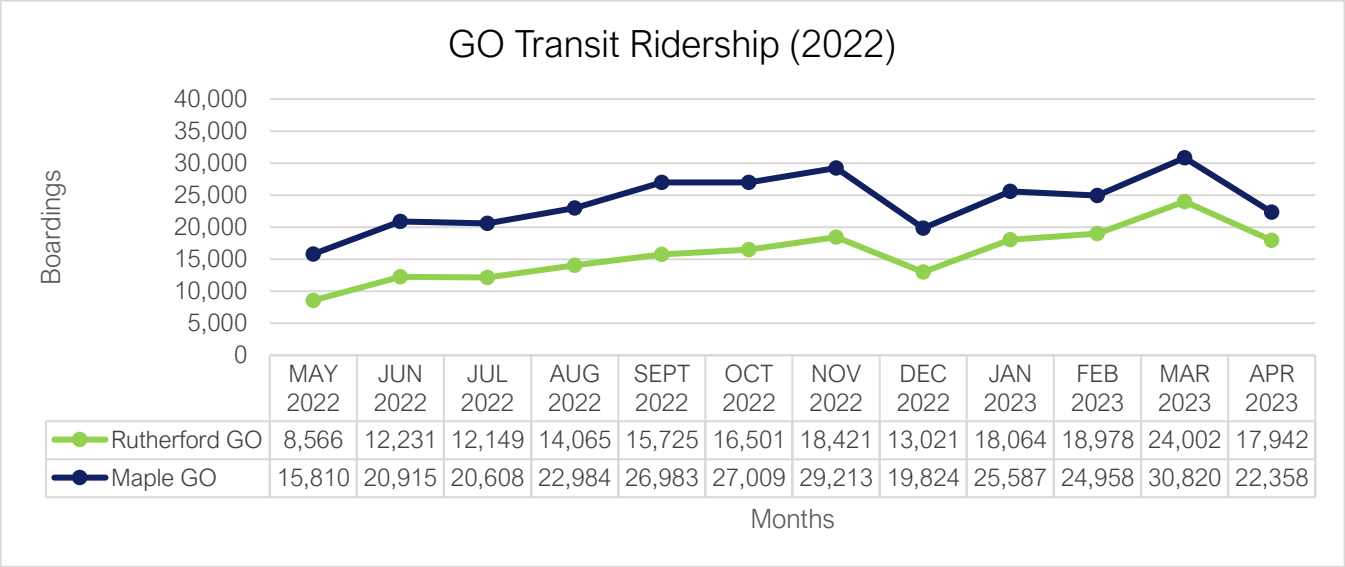
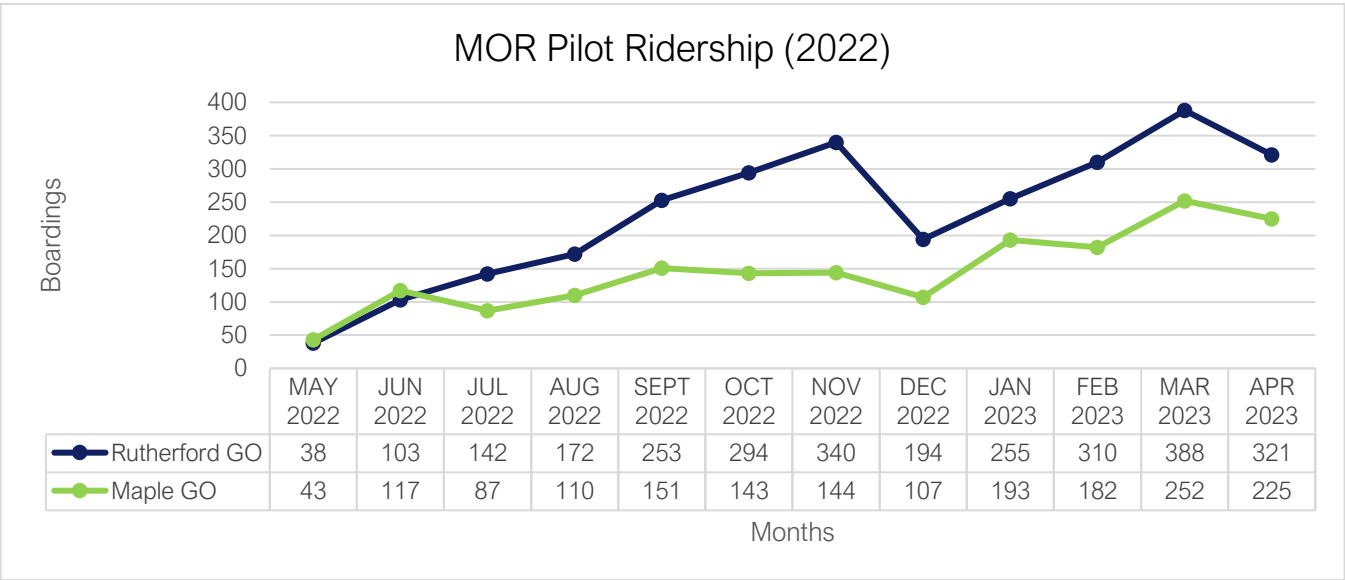


FIGURE 10. PRE-PANDEMIC AND POST-PANDEMIC GO RIDERSHIP AT RUTHERFORD GO AND MAPLE GO

The rapid proliferation of work-from-home and hybrid work models during the COVID-19 pandemic significantly reduced the number of weekly work-based trips, and trends indicate that since the restrictions have eased, work-based travel has remained depressed from 5 times a week to 1-2 times a week. Commuter transportation represented a significant proportion of GO Transit trips prior to the pandemic. As a result, GO Transit ridership remains low. The following figures compare the post-pandemic GO ridership and the MOR pilot ridership. A key conclusion from this analysis is that the peaks and falls in the MOR ridership overall correlated with GO ridership at both stations.



	MAY 2022	JUN 2022	JUL 2022	AUG 2022	SEPT 2022	OCT 2022	NOV 2022	DEC 2022	JAN 2023	FEB 2023	MAR 2023	APR 2023
Rutherford GO	8,566	12,231	12,149	14,065	15,725	16,501	18,421	13,021	18,064	18,978	24,002	17,942
Maple GO	15,810	20,915	20,608	22,984	26,983	27,009	29,213	19,824	25,587	24,958	30,820	22,358



	MAY 2022	JUN 2022	JUL 2022	AUG 2022	SEPT 2022	OCT 2022	NOV 2022	DEC 2022	JAN 2023	FEB 2023	MAR 2023	APR 2023
Rutherford GO	38	103	142	172	253	294	340	194	255	310	388	321
Maple GO	43	117	87	110	151	143	144	107	193	182	252	225

FIGURE 11. COMPARISON OF GO RIDERSHIP AND PILOT RIDERSHIP AT RUTHERFORD GO AND MAPLE GO

While overall trends in GO ridership were consistent with the increases and dips in the pilot ridership, there was no observed correlation regarding the station preference. Despite GO Transit experiencing consistently greater ridership at Maple GO, users of the pilot service took more rides to/from Rutherford GO. Pilot ridership at Rutherford GO also experienced an overall greater rate of growth as compared to Maple GO. Ridership comparisons at both stations are further discussed in section 3.1.2.3.

3.1.2.2 SPATIAL DISTRIBUTION OF TRIPS

To better understand demand, pick-up and drop-off locations of trips were monitored to assess how actual ridership compared to the perceived interest. The following map displays the location (based on postal codes) of all who signed up for the service (both who qualified and didn't qualify) and the pick-up and drop-off locations of users. Although only a fraction of qualified respondents used the service, the spatial distribution of these riders was distributed as shown in the figure below.

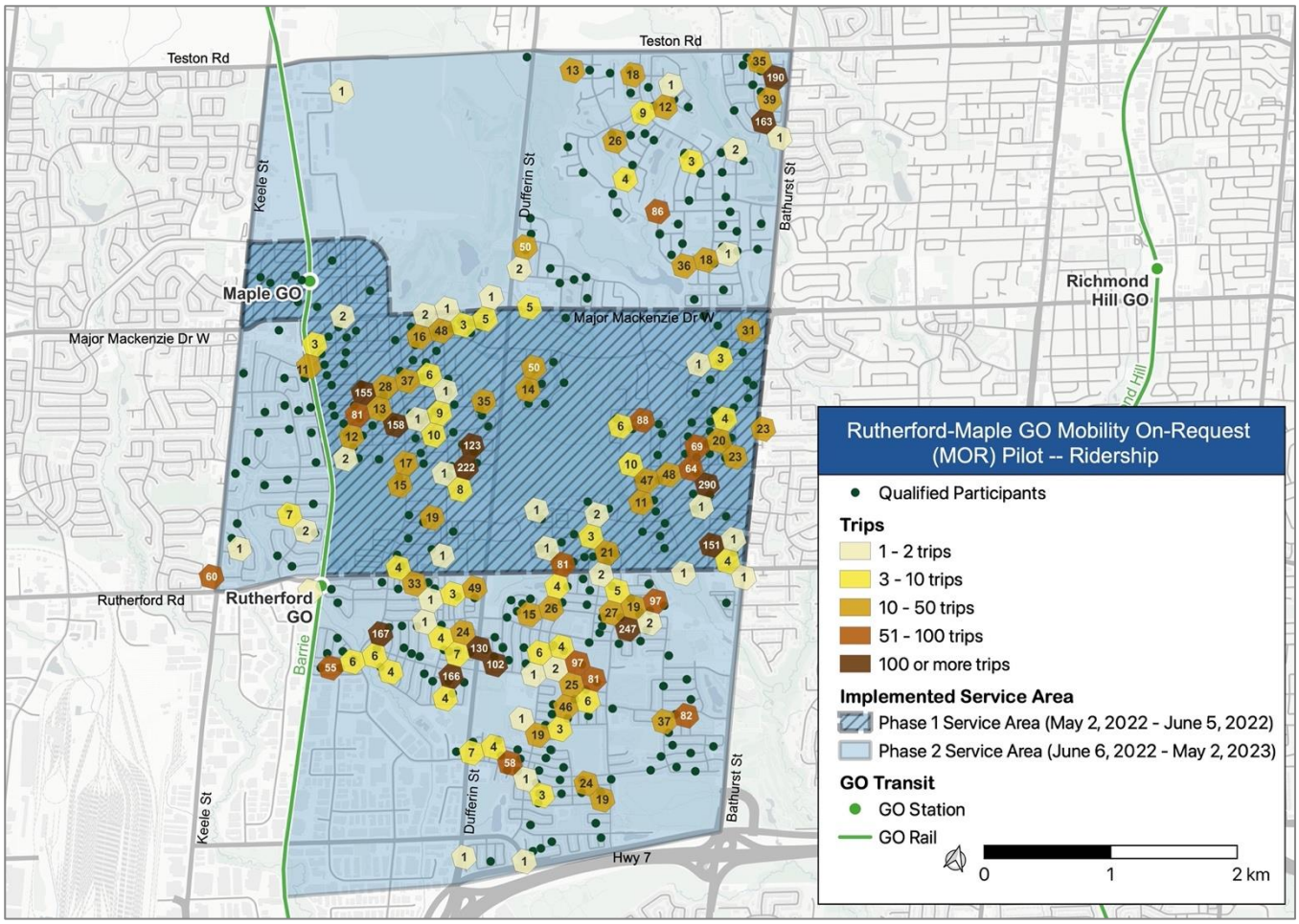


FIGURE 12. DISTRIBUTION OF SURVEY RESPONDENTS AND MOR USERS

3.1.2.3 REPEAT USERS

A key component of testing the viability of the service was the ability of the pilot to retain repeat users. A high percentage of repeat, consistent, and frequent users indicates that the demand and interest for the service is sustainable. Of those who used the service during the incentive program, 81% of the new users continued to use the service after their first trip. This suggests the service meets the needs of the users and continued marketing strategies can be an effective tool in any stage of the pilot.

Analysis of individual trips showed that 83% of the customers were repeat riders, meaning they took at least one more trip after their first trip. Customers that took a trip at least once a week for 75% of the total number of weeks since their first trip were identified as frequent users and customers that used the service every week since their first trip were identified as consistent users[6]. Occasional users were also considered

[6] For example, a customer that took their first trip on Feb 27, 2023, would need to take at least one trip every week until the end of the pilot to be considered a **consistent user**. The same customer would need to take at least one trip in a given week for 8 out of the 10 remaining weeks until pilot end (i.e., at least 75% of the number of weeks) to be considered a **frequent user**. Similarly, to be considered an **occasional user**, the same customer would only need to take at least one trip in a given week for 5 out of the 10 remaining weeks (i.e., at least 50% of the number of weeks).

to monitor ridership patterns. Occasional users consisted of customers that took a trip at least once a week for 50% of the number of weeks since they first took a trip.

> I used [Mobility On-Request] when my car was at the shop or when I couldn't drive unexpectedly.
>
> *- Survey 1 Respondent*

> My wife and I are sharing a car, so I used the [Mobility On-Request] service when my wife needed the car.
>
> *- Survey 1 Respondent*

Analysis of ridership data showed that the pilot had one consistent user and of the remaining customers, 40% consisted of occasional users and 16% were frequent users. Although ridership of individual customers was not as consistent as expected, the overall ridership suggests that there is a consistent interest in the service throughout the year.

Consistency was also observed in the timing of trips. Majority of the trips took place during the morning peak of 7:30 a.m. to 8:00 a.m. and the afternoon peak of 5:00 p.m. to 5:30 p.m. As the service gained ridership in the later months, customers travelling during the morning peak noted cancelled trips due to the limited number of vehicles. The figure below shows the distribution of pick-up and drop-off trips between Rutherford GO and Maple GO across the service hours.

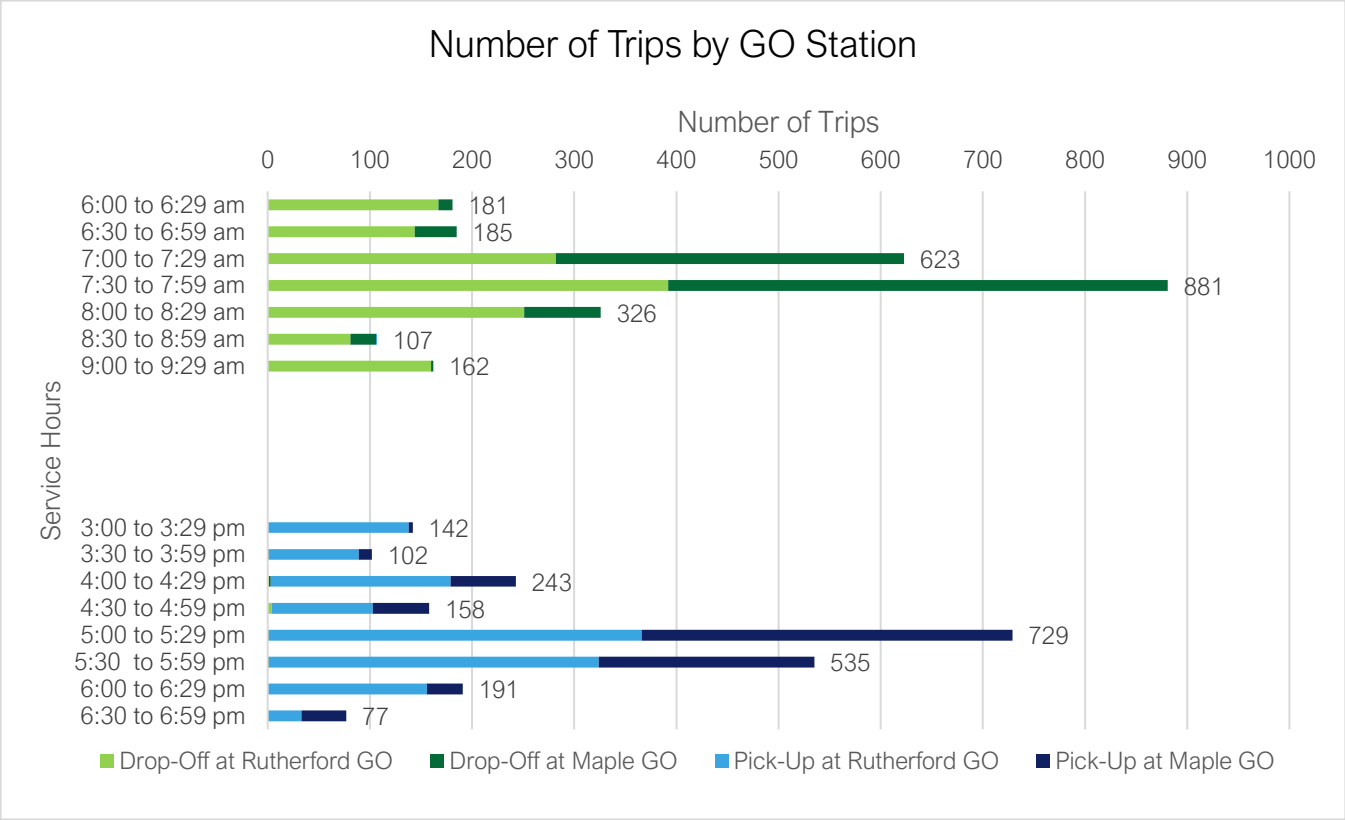


FIGURE 13. DISTRIBUTION OF TRIPS BETWEEN RUTHERFORD GO AND MAPLE GO

The following map displays the spatial distribution of trip origins by station. During the sign-up survey, there was a preference towards Rutherford GO by those that qualified for the service, resulting in 62% of the trips travelling to/from this station. This may be the result of many choosing Rutherford GO station as it is in the direction of their travel, rather than choosing Maple GO station which would require them to travel in the opposite direction (even if Maple GO station is closer to their pick-up address). In addition, construction at Maple GO and road construction throughout the service area, as well as GO train schedules could also have influenced this travel decision.

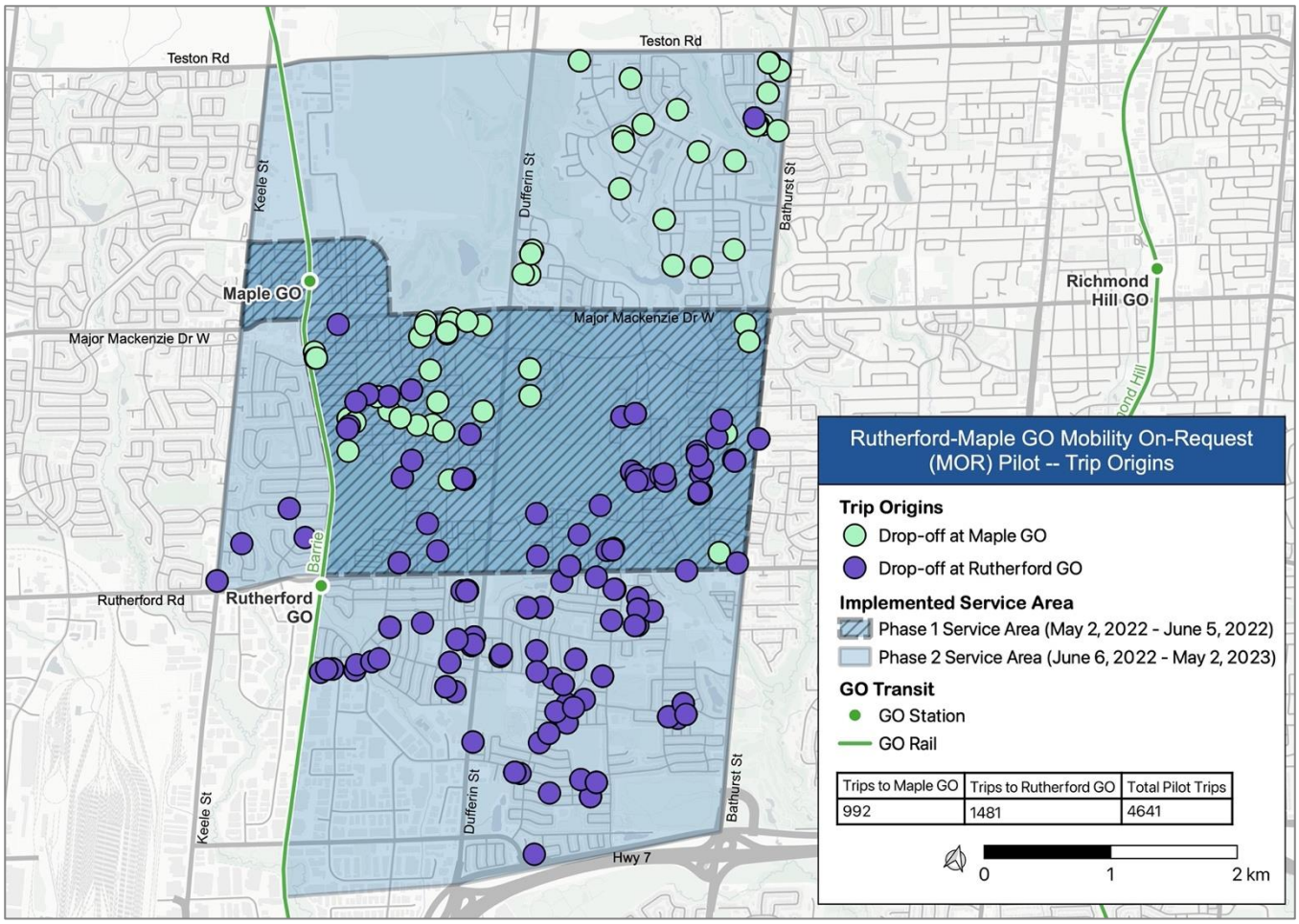


FIGURE 14. DISTRIBUTION OF ORIGINS TRAVELLING TO RUTHERFORD GO AND MAPLE GO

The following map displays the spatial distribution of trip destinations by station. Trip destinations for customers travelling from Rutherford GO and Maple GO were plotted to monitor the distribution of ridership across service area. The majority of the following trips occurred during the afternoon service period. Similar to the trip origins, users often travelled from the GO station located closest to their destination and those located in between the stations preferred travelling from Rutherford GO[7].

[7] Only 3 users travelling from Rutherford GO had destinations located in the northeastern corner of Bathurst Rd and Teston Rd. These 3 users culminated in a total of 23 trips travelling to this area.

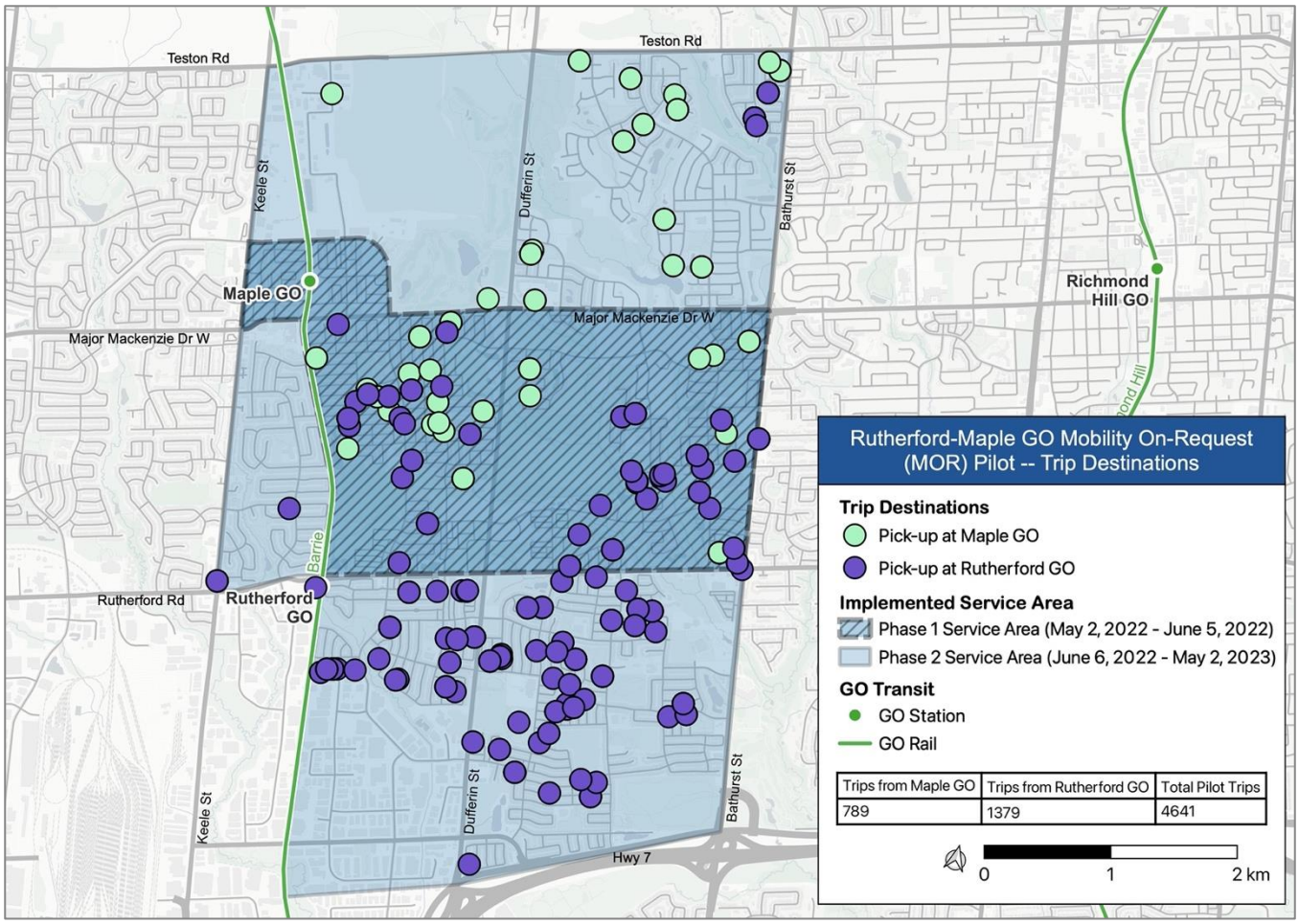


FIGURE 15. DISTRIBUTION OF DESTINATIONS TRAVELLING FROM RUTHERFORD GO AND MAPLE GO

For both trip origins and destinations, users generally chose to travel to/from the same locations. This was expected as the service was designed for commuters connecting to GO services.

3.1.3 Customer Experience

Customer experience plays a significant role in the success of a public transit service. As such, in addition to operating performance, the pilot was monitored through a customer experience lens to assess if the MOR service met customer satisfaction and was able to encourage mode shift from travelling by single occupancy cars. Those who qualified for the MOR service were surveyed on their experience with the service at the beginning, middle, and end of the pilot. Throughout the customer experience surveys,

"users" are defined as those who qualified and used the service at least once. "Non-users" are defined as those who qualified but did not use the service[8].

> My husband and I share a car. The buses do not come into the station when I travel. This service is amazing!
>
> *- Survey 1 Respondent*

While changing travel behaviours is a complex process, greater customer satisfaction with the pilot is likely to build trust in public transit and encourage mode shift away from driving. Metrics used to assess customer satisfaction included ease of booking, safety, experience at pick up/drop off and with the drivers. Metrics used to assess changes in travel behaviour included customer perception of time saved through MOR, service reliability, and preferred mode of travel since pilot launch. These metrics were measured through evaluation of survey responses to the various customer experience surveys throughout the pilot.

To understand the customer perception of the pilot performance, users were surveyed about their travel experiences. The figure below highlights key takeaways from the customer experience surveys.

[8] Customer experience surveys include Survey 1 (June 2022), Survey 2 (February 2023) and Survey 3 (May 2023). See Appendix D – Survey Results more information about these surveys.

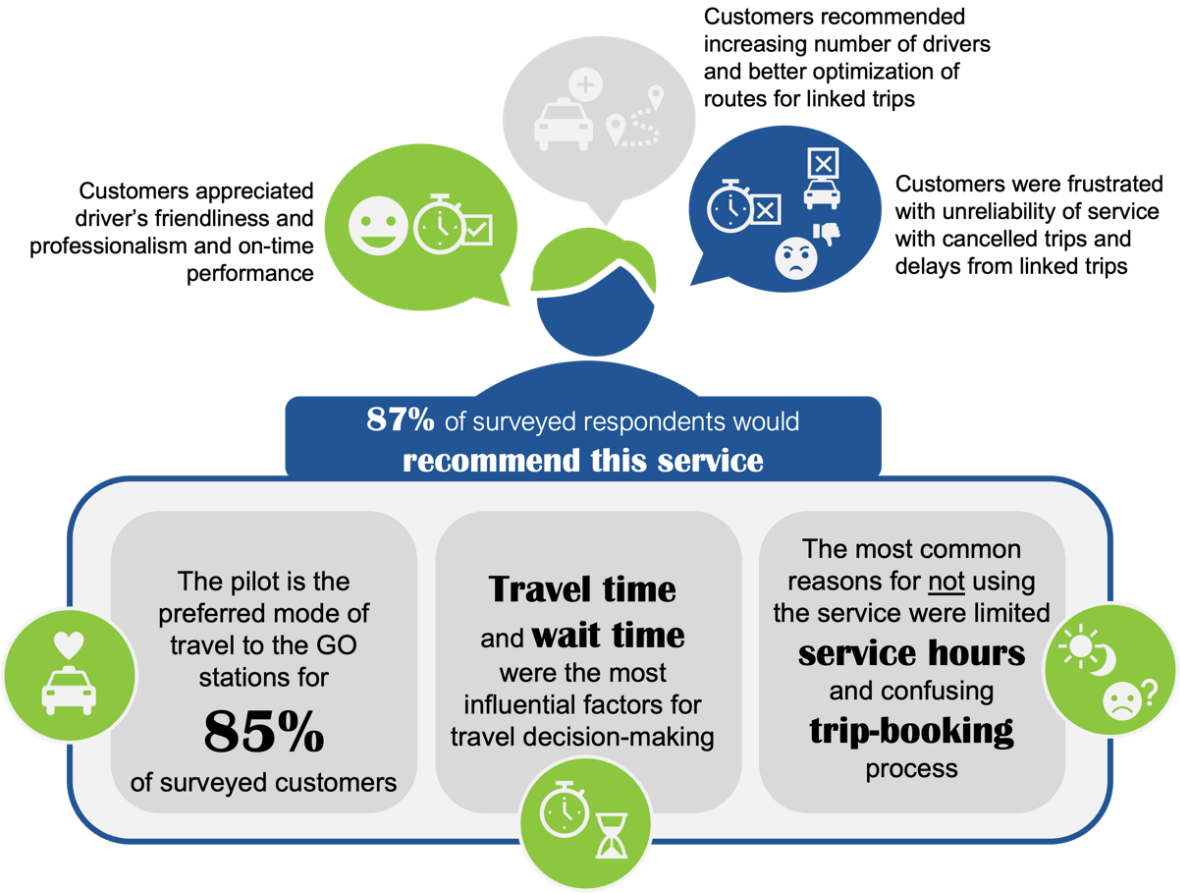
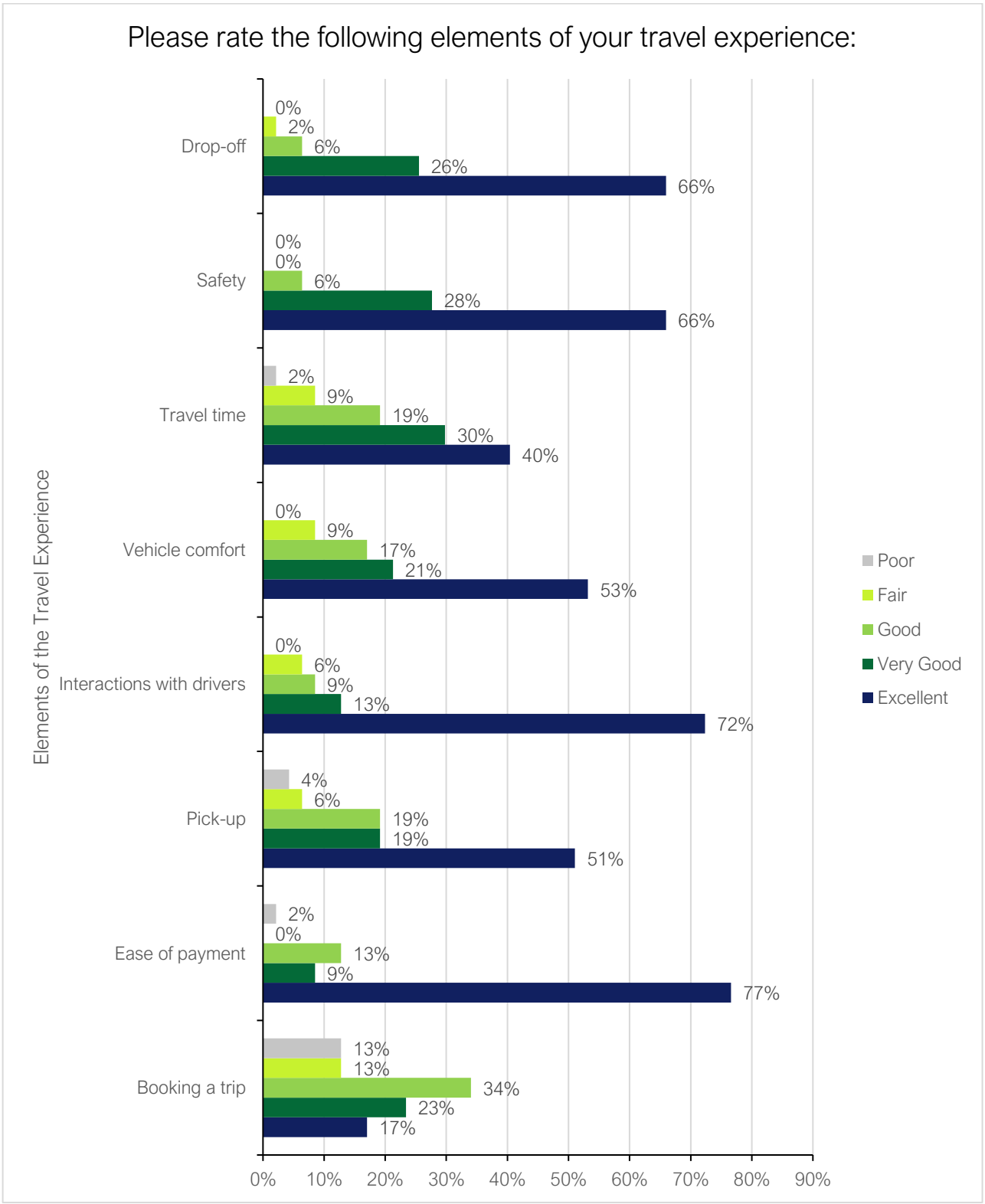


FIGURE 16. CUSTOMER EXPERIENCE HIGHLIGHTS

Overall, 80% of customers indicated they were very satisfied or satisfied with the pilot service. The figure below shows the survey results for how customers ranked their experience across various elements associated with customer experience.



Survey 2 (February 2023). 47 respondents completed this question.

FIGURE 17. EVALUATION OF CUSTOMER TRAVEL EXPERIENCE

Overall, the MOR pilot was well-received as most customers ranked the service as very good or excellent. 85% of surveyed users indicated that the MOR was their preferred travel mode. Almost all (96%) surveyed participants said would consider using the pilot.

Pick-up, drop-off, and travel time were generally well-rated by the majority of respondents. The YRT data aligns with this favourable quality as 85% of trips were within five minutes of the expected time[9] . In cases where the experience was less favourable, customers expressed confusion about pick-up locations due to the inability to communicate with the driver through the app. The average in-vehicle travel time was 10.2 minutes. In-vehicle travel time was typically 4 minutes higher for linked trips, especially for those that travelled to both Rutherford GO and Maple GO stations.

While wait and travel times were satisfactory, surveyed respondents identified the following challenges with the MOR service:

- The pilot service hours did not meet their travel needs[10];
- Difficulty booking a trip during peak travel times[11];

Customers had the most challenges with trip booking, with several recounting technological difficulties and confusion with the trip booking app. Common complaints included a non-user-friendly interface, inaccuracies with the notifications, and frequent system glitches that prevented the users from choosing their desired destinations. These experiences may have hindered customers from switching to MOR consistently as reliability is a key factor that enables change in travel behaviour. To mitigate these challenges across all MOR services, YRT is currently considering replacing its software system, which will include improvements to the trip booking application.

> You have excellent drivers that are a pleasure to chat with.
>
> *- Survey 2 Respondent*

3.1.3.1 FACTORS THAT INFLUENCE CUSTOMER TRAVEL CHOICES

Although the pilot provided a viable alternative for the Rutherford-Maple residents, and resulted in 15 new GO Train riders, changing customer behaviour of a community requires a holistic approach. Of the majority of customers surveyed, the post-pandemic shift to hybrid work models reduced the frequency of work-based trips per week. For both pre- and post-pandemic travel, respondents indicated that over a third of the trips they made to the Rutherford GO or Maple GO stations were work-based trips. However, the rising popularity of the hybrid work model post-pandemic reduced the frequency of work-based trips to the GO station, which resulted in decreased ridership for the pilot and GO ridership at both stations. This was

[9] On average, customers did not have to wait since the vehicles arrived on average 1 minute before the scheduled pick-up time.
[10] Customers indicated interest in additional service hours after 6 p.m.
[11] Customers recommended adding more vehicles during 7:00 a.m. to 8:30 a.m. as the app stated that a trip could not be booked.

confirmed by survey results which showed that the frequency of customers travelling to the GO stations five times a week before the pandemic had dropped to two times a week or less as of September 2022.

The figure on the following page summarizes key trends observed among survey responses with regards to travel behaviour for pre and post pandemic travel to the GO stations.

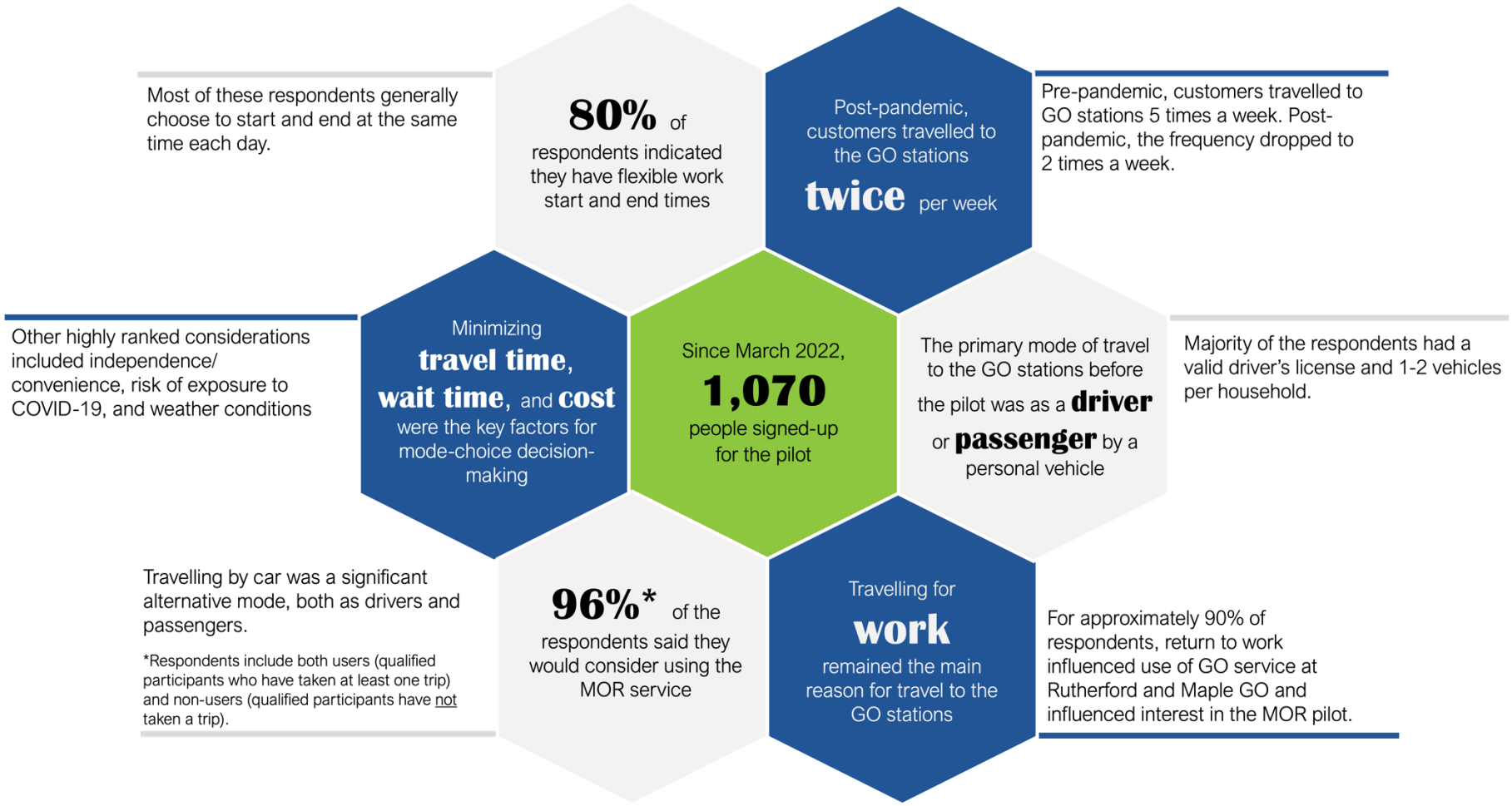


FIGURE 18. TRAVEL BEHAVIOURS OF QUALIFIED PARTICIPANTS OF THE SERVICE

Survey questions were focused on understanding what factors would influence customers to change their behaviour and consistently choose micro-transit to commute to GO stations. To inform this, those who qualified for the service were asked what factors they considered when deciding how to travel to the GO station. The figure below summarizes feedback received from those who used the service and those that had not, despite signing-up and qualifying for it.

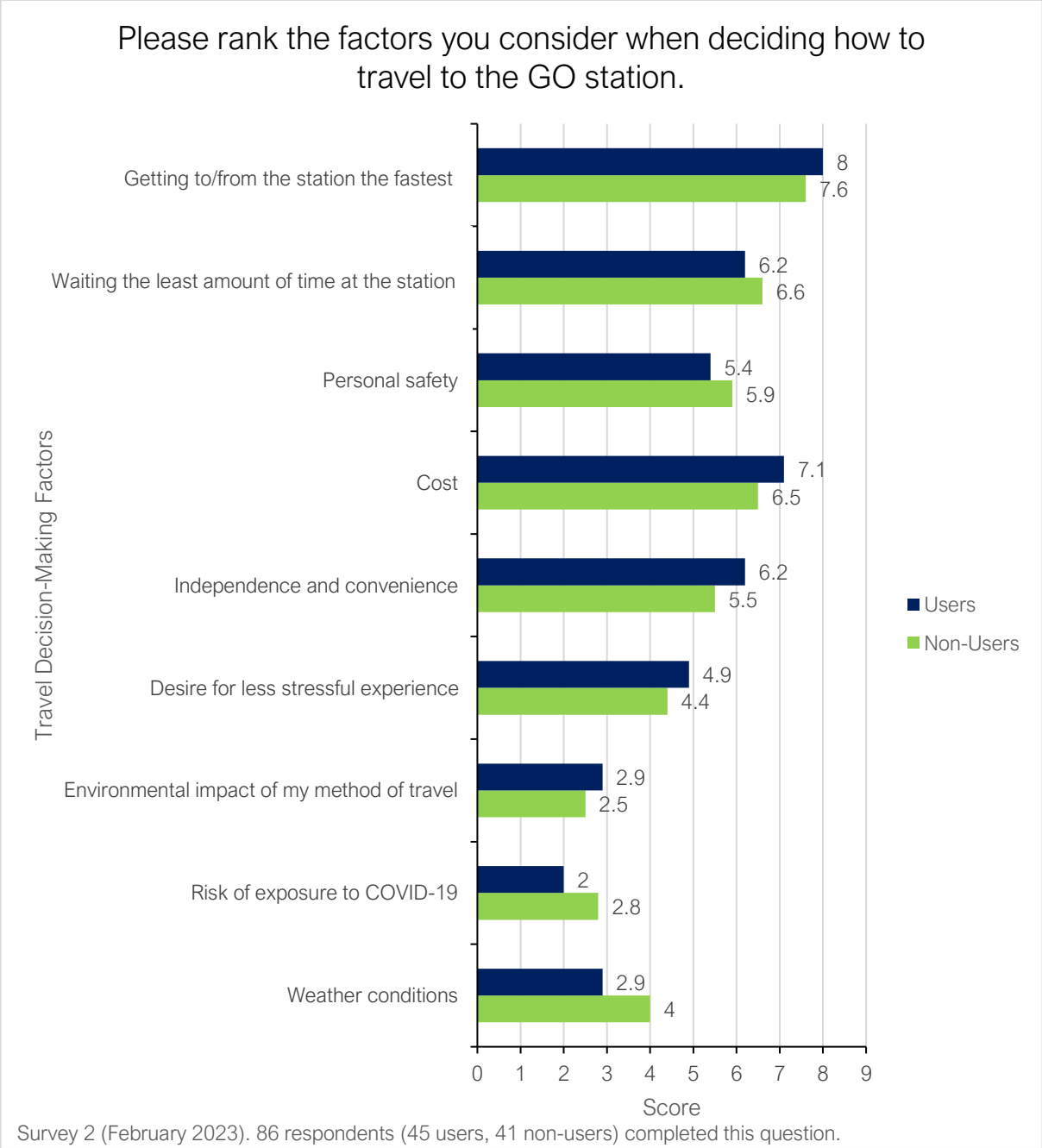


FIGURE 19. TRAVEL DECISION-MAKING FACTORS

As shown in the above survey results, people who qualified for the survey considered time to be the most relevant factor in their decision. This involved both travel time to get to the station and time spent at the

station (e.g., finding parking). To understand whether the MOR pilot met this priority, people who qualified for the pilot were asked which qualities of the MOR pilot they preferred. The results summarized in the figure below show that people ranked flexibility, independence, and travel cost to be the top qualities of the pilot they experience.

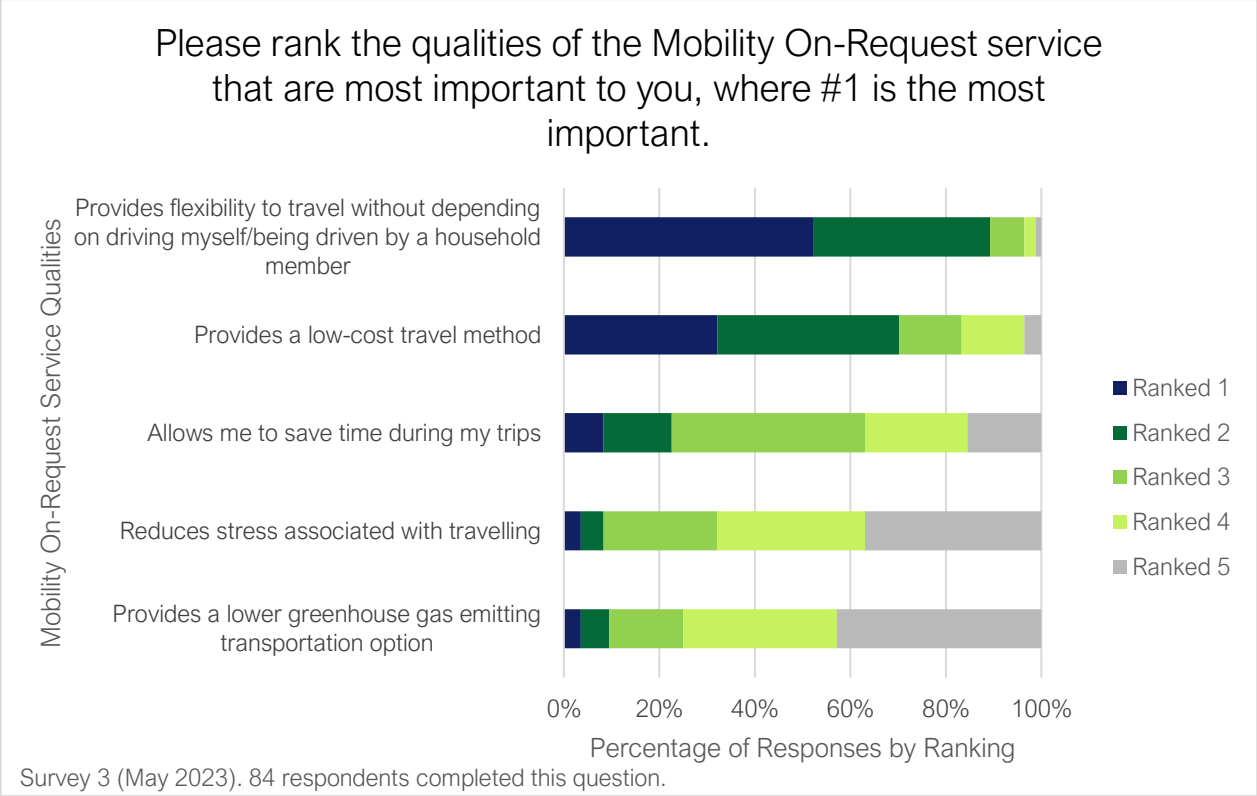


FIGURE 20. PREFERRED QUALITIES OF MOR SERVICE

Contrary to the previous survey responses, travel time was not ranked as a top qualify of the MOR pilot by pilot users. Since travel time was the top factor that influenced decision on how to travel to the GO station, the MOR pilot did not meet this priority. This may have contributed to the reason for why the MOR pilot did not change travel behaviour of its users.

3.1.4 Equitable and Accessible Access

In addition to providing a sustainable and improved first/last mile travel options, the pilot also strived to provide accessible and equitable service. Customers were also able to indicate whether they were travelling with mobility aids, children, or otherwise required accommodations. These trips were not as common, as less than 1% of customers travelled with mobility aids. The most common mobility aids indicated by users were walkers and wheelchairs.

> Medical condition is keeping me from driving my own vehicle.
>
> *- Survey 3 Respondent*

While majority of the trips were provided by a standard five-seater sedan, exceptions were made to provide service through alternative vehicles to those travelling with mobility aids, travelling with children, and those that had difficulty travelling in a sedan. Qualified respondents were provided accommodations to service their needs on a case-by-case basis. While available, there were no requests for trips with an accessible vehicle or for trips with children under eight years of age, throughout the pilot.

FIGURE 21. PILOT PERFORMANCE OF EQUITABLE AND ACCESSIBLE ACCESS

Equitable and accessibility considerations were also provided at the trip booking stage. 5% of customers utilized the option to phone-in to request their trips, an alternative for customers who did not have access to smart phones, data or were unaccustomed to using mobile applications.

3.2 ENVIRONMENTAL IMPACTS

The pilot sought to reduce the dependency on single-occupant vehicles which were currently used to complete the first/last mile journeys for many commuters travelling to/from these stations. Pooled, or linked trips, were used to reduce the number of single-occupant vehicles by completing 2-4 customer journeys

using a single vehicle, which aimed to reduce the GHG emissions associated with single-occupant vehicle travel. The following sections provide further detail on the environmental impacts of the pilot.

3.2.1 Linked Trips

> Mobility On-Request service] is more convenient, environment friendly and saves time commuting from door-to-door.
>
> *- Survey 1 Respondent*

Linked trips allow Mobility On-Request services to increase operational efficiency and achieve sustainability targets. This was done by serving a greater number of customers through multiple-occupancy vehicle trips, thus reducing GHG emissions relative to single-occupancy travel. The service launched providing individual trips in May 2022, and began linking trips in June 2022 as ridership increased. Linked trips could pool up to four customers after COVID-19 safety precautions were relaxed. However, due to low ridership 90% of linked trips involved pooling two customers.

To enable linked trips, the MOR system optimized the requested trips based on pickup and drop off time and locations. As a result, a total of 636 trips were linked through the pilot. This accounted for 14% of all trips in the pilot. Linking was constrained to not add more than 15 minutes to a customer's trip. This limit was set to maintain service quality and ensure customers did not have a prolonged journey to their destination, however it limited the total number of trips that could be linked.

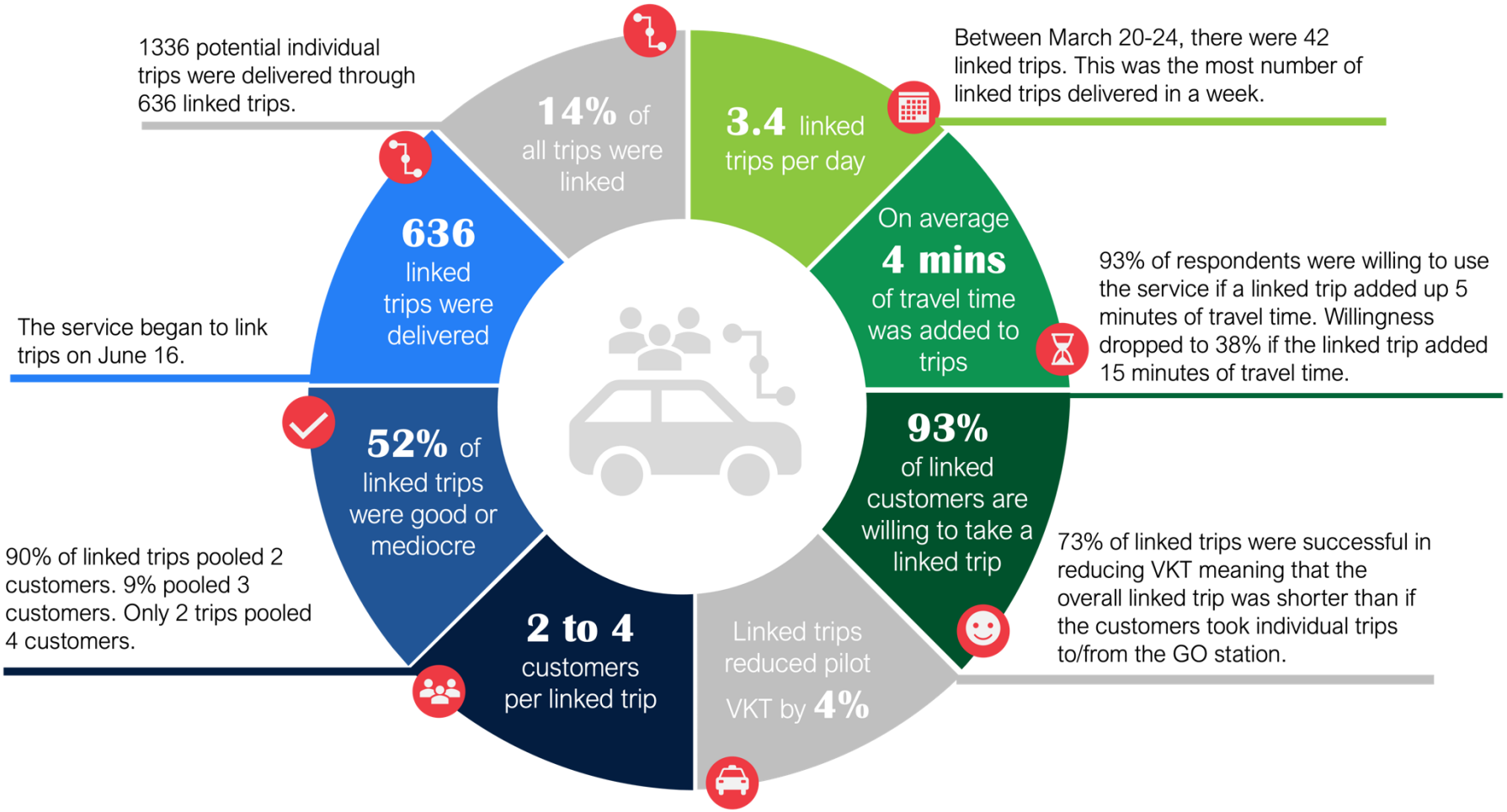


FIGURE 22. PILOT PERFORMANCE OF LINKED TRIPS

The number of linked trips increased over the course of the pilot as ridership increased and clusters of requests heading to or from similar destinations could be linked together. The figure below illustrates the relationship between total ridership and linked trips.

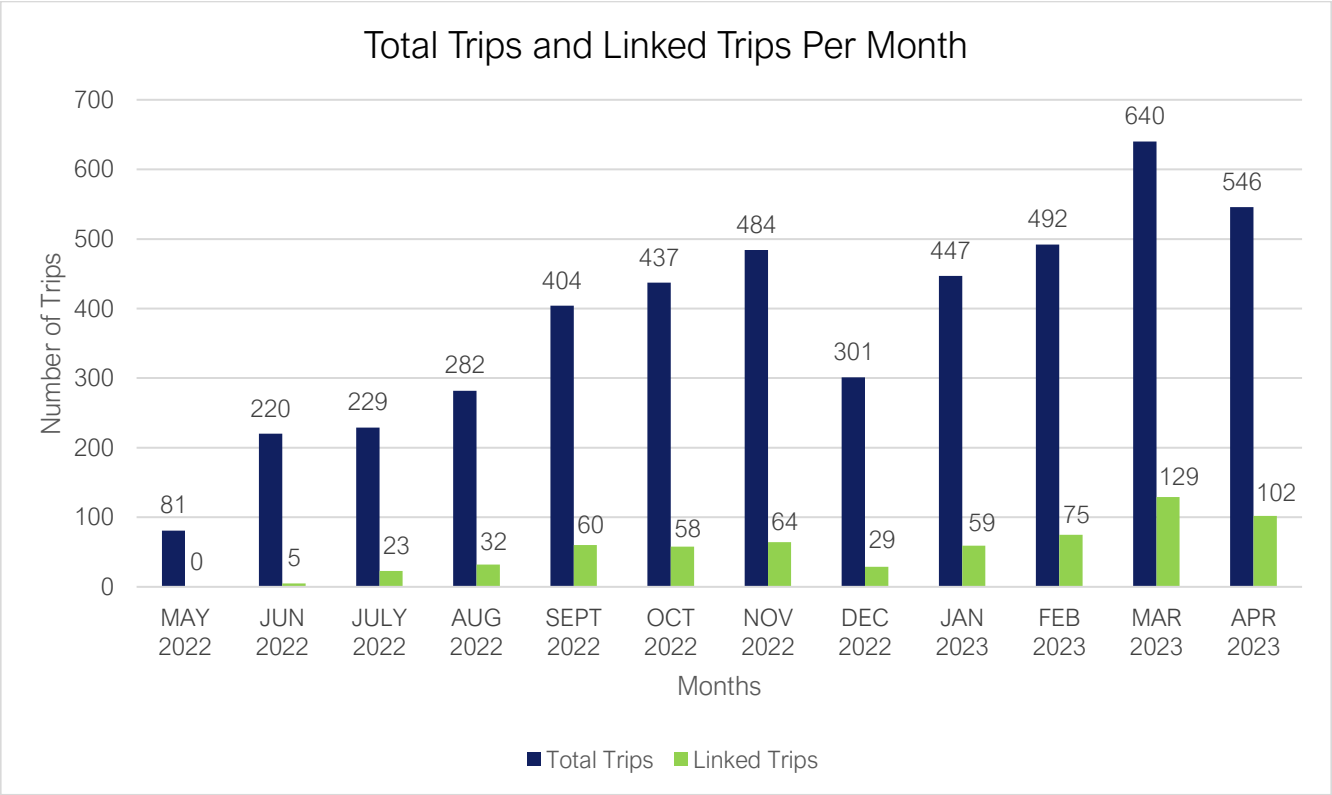
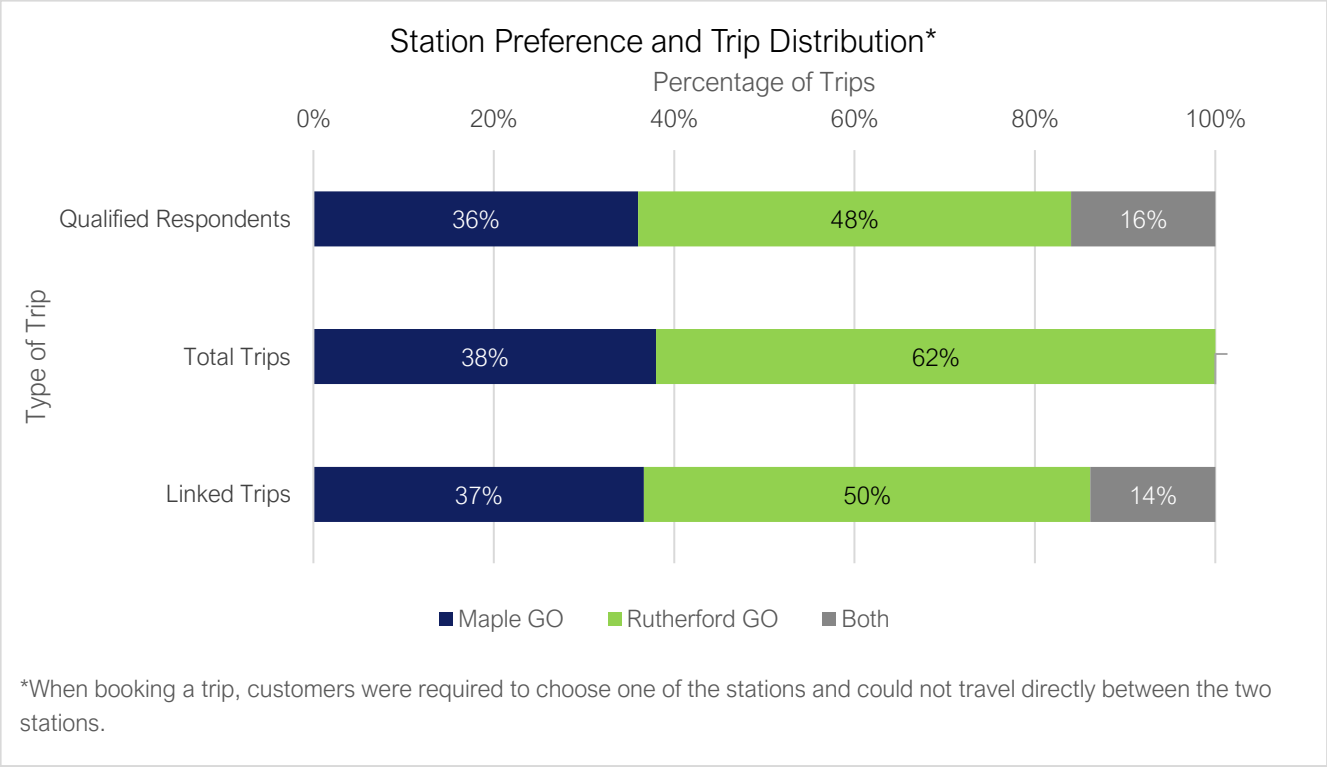


FIGURE 23. COMPARISON OF TOTAL TRIPS AND LINKED TRIPS

The figure below visualizes the distribution of linked trips travelling to/from Rutherford GO, Maple GO, and both stations as compared to station preference expressed within the sign-up survey and thorough trip-booking.



*When booking a trip, customers were required to choose one of the stations and could not travel directly between the two stations.

FIGURE 24. STATION PREFERENCE AND TRIP DISTRIBUTION TO/FROM RUTHERFORD GO AND MAPLE GO

The success of linked trips was also measured by the amount of time added to a customer's trip. On average, linked trips were 7.4 kilometres long, and added 4 minutes to a customer's travel time. Based on customer feedback, a linked trip was satisfactory if it added no more than 5 minutes to the customer's travel time. As such, many customers were satisfied with their linked trips and 93% of linked trip customers said they were willing to use the shared service. When asked about tolerance of the time added from linked trips, 38% of survey participants indicated they would still use the service if the linked trip added up to 10 minutes to their trip, and 4% indicated they would tolerate up to 15 minutes added to their trip.

Although the intention of linked trips was to decrease the Vehicle Kilometers (VKT) Travelled by pooling customers, 27% of linked trips resulted in the VKT being greater than if all passengers would have taken individual trips. This most often occurred when the system inefficiently linked trips that involved drop-offs at both stations. Occasionally poorly linked trips that added longer travel times or led to a missed train

resulted in negative experiences. While incidents of customers missing their train were rare, customer feedback revealed the importance of efficient linked trips on customer perception of the service.

Overall, the linking of trips reduced the total VKT by approximately 4.4%, compared to the estimated VKT of these trips if they were taken in single occupancy vehicles [12]. In order to pool trips more efficiently, a higher ridership is required to enable more clusters of trip origins and destinations that can be lined.

3.2.2 Change in GHG emissions

A key outcome of providing a low-carbon mobility option is to reduce transportation-related GHG emissions. To achieve this goal, the pilot service used a combination of linked trips and a fleet of hybrid vehicles to deliver the service. The pilot vehicles consisted of three YRT-operated hybrid fueled 5-seater sedans (1 Hybrid Honda Accord and 2 Hybrid Toyota Camrys)[13]. Determining reductions in GHG emissions involved the assessment of various factors to estimate the GHG emissions produced from trips by pilot vehicles. The pilot emissions were then compared to estimated emissions that would have been produced if the same trips were taken by individual gasoline vehicles in the absence of the pilot. Key factors evaluated include VKT during trips and VKT during the drive to pick-up a passenger (deadheading). Idle time incurred while waiting for a trip request was also considered in estimating GHG emissions. The following assumptions were made to estimate the potential GHG emissions:

- All trips were delivered via the available route with the lowest travel distance – The MOR system did not have the ability to accurately capture VKT. As such, the VKT was assumed for each trip using the lowest travel distance between stops as listed on Google Maps.
- In the absence of the pilot, all trips would be delivered by single-occupancy trips – 76% of surveyed MOR users indicated that they travelled to a GO station by driving (either as the driver or as a passenger) before the pilot. Given the large proportion of users driving to the GO stations, it was assumed that in the absence of the pilot, all trips would be delivered by single-occupancy vehicles driving to the stations.
- In the absence of the pilot, all trips would be delivered by light-duty gasoline fueled vehicles – Light-duty gasoline fueled vehicles are the most common vehicle type in Ontario[14]. Of this vehicle type, the most common make and models are Honda Civic, Honda Accord, Toyota Camry, and Toyota Corolla. The average emissions of these vehicles (approximately 157 grams CO^2e per vehicle kilometre travelled) was used to approximate GHG emissions in the absence of the pilot service.
- The pilot vehicles emit approximately 114 CO2e grams per vehicle kilometre travelled – The pilot used a fleet of 3 hybrid vehicles (1 Hybrid Honda Accord and 2 Hybrid Toyota Camrys). The

[12] The estimation of single-occupancy vehicle kilometers travelled is based on the direct route (assessed via Google Maps) that would have been taken.
[13] In addition to the sedans, gasoline-fueled 2018 Dodge Caravans were used to deliver 13 trips. Vans were used as a replacement vehicle when a sedan was not operational.
[14] This assumption is based on a 2018 study conducted by the Canada Energy Regulator.

average emissions of these vehicles (approximately 114 grams CO^2e per vehicle kilometre travelled) was used to determine the approximate GHG emissions of the overall pilot[15,16].

- **Deadheading and idling could increase VKT of linked trips by 20% to 200%** – The MOR system did not have the ability to accurately capture the VKT associated with deadheading and idling. Based on project team experience and limited public documentation, a wide range for deadheading and idling in on-demand trips was assumed: an increase in VKT by 20% to 200%. This range is a result of services that pool trips across short and long distances. Given that the pilot ridership was distributed throughout the service area, the inability to track VKT during deadheading led to the project team applying a wide range for VKT calculations.

> [We can] consider reducing amount of cars for our household.
>
> *- Survey 1 Respondent*

Linked trips contributed to reductions in VKT and GHG emissions as the pilot delivered 1,336 potential individual trips through 636 linked trips. As described in Section 3.2.1, most linked trips had a shorter trip distance than if the passengers would have travelled individually. As a result, linked trips reduced approximately 710 vehicle kilometres from the overall pilot's VKT by pooling customers travelling to/from nearby locations. During the pilot, vehicles were also required to deadhead from the end of one trip (or linked trip) to the beginning of the next trip (or linked trip). The MOR system did not have the ability to accurately capture these metrics.

The pilot emissions were estimated by multiplying the range of VKT with the average emissions of the pilot vehicles. The pilot service used a fleet of hybrid-fueled vehicles to deliver trips which contributed to GHG emission reductions. For each kilometre travelled, the pilot vehicles emitted an average of 0.114 kg CO^2e in comparison to the light-duty gasoline vehicles which emitted an average of 0.157 kg CO^2e. As such, the pilot emitted a range of 2,100 to 3,500 kg CO^2e. Given these calculations, the pilot reduced up to 411 kg CO^2e (16% of GHG emissions) through the use of a green fleet and by delivering linked trips.

Pilot emissions were directly related to the ridership, the number of linked trips delivered, and the overall VKT. Greater pilot ridership translated into an increase in the number of linked trips and the number of customers pooled within a linked trip, thereby decreasing the overall VKT. As the pilot became established within the community and gained new riders, there was an increase in the number of linked trips as a greater number of individuals were travelling to nearby locations during the same time. Based on these observations, the service has the potential to support greater emission reductions for low-carbon mobility by encouraging increased ridership.

[15] The emissions of the 13 trips delivered by the 2018 Dodge Grand Caravan replacement vehicles were calculated separately assuming that each vehicle emitted 276 grams CO^2e. The emissions were derived from the 2018 Fuel Consumption Guide.
[16] The emissions were derived from 2022 Fuel Consumption Guide.

3.3 ECONOMIC IMPACTS

Providing an economical means for the city to enable first/last mile transportation options for commuters and assessing the potential economic benefits to both users and to wider society were two of the goals of the pilot. The pilot service aimed to reduce auto-dependency and result in less costs for customers who paid to park at the GO stations, as well as ease congestion around the station. Wider economic and societal benefits from addressing the first/last mile challenge also include reduced travel time, fewer GHG emissions, and greater access to jobs, services, and amenities.

3.3.1 Potential Economic Benefits to Users and the Wider Society

The Rutherford-Maple GO MOR pilot provided direct cost savings for the customers of the service. The pilot leveraged the "Ride to GO" program, a recent joint fare integration initiative between YRT and Metrolinx. Since March 2022, the Ride to GO program allows customers to travel on any YRT and contracted TTC route in York Region travelling to or from GO Transit services for free when showing a proof-of-payment for a trip on GO Transit or using PRESTO, credit, or debit for fare payment. Due to the Ride to GO program, the trips to/from Rutherford GO or Maple GO stations provided by YRT were free for customers. Customers using PRESTO were charged a full YRT fare upon boarding, which was then deducted from their GO Transit fare. Similarly, customers connecting from GO Transit to the pilot service were not charged a fare. Given the short MOR trips (average MOR trip was 3.4km), the short distance has minimal impact on cost savings for the customer. However, economic benefits of the potential time saved from parking the car and the stress-free experience of being picked up and dropped off have been reflected in some of the customer feedback.

> Mobility On-Request service] makes life a little easier not rushing to find parking at [the] station.
>
> *- Survey 1 Respondent*

Across the customer surveys, survey respondents consistently ranked cost as the second or third most important factor they considered when determining how to travel to/from the GO station. Although cost was a key deciding factor, minimizing the amount of time spent traveling (choosing the fastest method of travel) were more important to customers. As such, initial marketing strategies centred around "free ride to GO Transit" pivoted instead to highlight the convenience and economic benefits of time saved from using a micro-transit service.

3.3.2 Enable Economical First/Last Mile Transportation Options

The MOR pilot tested the feasibility of the city to deliver a financially sustainable option for first/last mile transportation to Rutherford GO and Maple GO. The pilot service was funded by the FCM through the Green Municipal Fund, which provided up to 50% of the total pilot costs. Given the positive feedback from customers and the expected increase in ridership as customers become more accustomed to the service

and GO Transit ridership grows, YRT has decided to continue the service. As of May 3, 2023, the micro-transit service to Rutherford GO and Maple GO stations became part of York Region Transit's Mobility On-Request on-demand service.

To deliver the service, the City contracted York Region Transit. YRT operated three hybrid fueled 5-seater sedans (1 Hybrid Honda Accord and 2 Hybrid Toyota Camrys) during the morning and evening service periods[17]. The average operating cost per revenue hour for each vehicle was $40.00. The cost to deliver the service over the course of the pilot was approximately $39.10 per trip. As the service was still building demand in the first few months, the costs were higher due to low ridership. On average, the pilot had approximately 3.2 boardings per hour which contributed to the higher costs. However, as the service grew in ridership in the fall months, the cost ranged from $25-$36 per trip[18]. This cost will continue to decrease as ridership grows in line with GO Transit.

[17] As mentioned in Section 3.2.2, non-hybrid 2018 Dodge Caravans were used to deliver 13 trips. Vans were used as a replacement vehicle when a sedan was not operational.

[18] For comparison, based on 2021 CUTA data, YRT's conventional service cost $13.50/trip (Total net operating cost/Total # of trips). Conventional service costs are lower per trip due to greater demand along routes and higher and more consistent ridership over the service-period.

4 LESSONS LEARNED

The MOR pilot was a valuable service to customers and an important initiative that provided key insights on operating a micro-transit service in a post pandemic world. The lessons learned from the pilot can be applied to future programs as well as by other jurisdictions to explore and implement sustainable first/last mile and other micro-transit solutions. The following sections highlight the observations and takeaways from the learnings of the year-long pilot.

4.1 ACCOUNT FOR VARIOUS FACTORS THAT INFLUENCE DEMAND FOR FIRST/LAST MILE SERVICES, AND ADJUST SERVICE ACCORDINGLY

> "We only have one car in my family, so I can't park the car at the station. I was very nervous about the logistics of getting downtown and losing a big part of my day to the commute. I was also considering taking the subway, but it is too far away and still required someone to take me there. I chose this service because I was in shock that the city offered such an amazing service to help get me to work!"
>
> *- Survey 1 Respondent*

A fundamental tenet of sound public transit planning is to match service to demand. The more demand there is for a service, the higher the service levels and more comprehensive the service design should be. For a fixed-route service, this would predominantly translate to higher frequencies for routes traveling through the area. Yet for micro-transit, there are more variables that can be adjusted in the service design to account for varying demand levels. The City of Vaughan micro-transit pilot saw realized ridership fall short of the original demand projections, and so the team made adjustments to the service design accordingly.

Relating to demand, two critical events happened that dampened the original projections. First and foremost, the COVID-19 pandemic struck and dampened transit ridership worldwide. GO Transit ridership, which was directly correlated to the pilot, dropped to 23% of pre-pandemic levels. According to the 2017 GO Rail and UP Express Customer Survey conducted by Metrolinx, 81% of pre-pandemic weekday GO train trips were work-based and travelling to a usual place of work, with an additional 5% of work-related business trips. Most of these trips were also destined to Downtown Toronto. However, during and post-pandemic many downtown businesses implemented hybrid or work-from-home models which in turn significantly decreased commuter ridership – work-based trips dropped from 5 times a week to 1-2 times a week. It is important to note that York Region Transit's other similar on-demand services to GO stations also experienced low ridership due to the pandemics hit on GO Transit usage.

Second, construction at the Rutherford GO Station customer parking was mostly completed near the beginning of the pilot. Furthermore, while construction in the road network surrounding Rutherford GO station area persisted during periods of the pilot, the traffic impacts were lessened due to the change in travel behaviour attributed by COVID-19. Due to the decrease in GO Transit ridership, parking lots at both stations were at about 50% capacity throughout the pilot whereas the original demand projections accounted for lots at over-capacity. Given that the initial primary motivation of the pilot was to mitigate the parking and traffic challenges due to construction at and around Rutherford GO station and along the two major corridors (Rutherford Road and Major Mackenzie Drive), the reduction of this barrier reduced the urgency for automobile drivers accessing GO.

In response to these factors, the project team made strategic decisions to adjust the service design over the course of the pilot. First and foremost, the impact was anticipated early on, and so a gradual, roll-out was planned. This involved starting with a narrower service area that targeted the highest concentration of qualified respondents and covered an area which was generally equidistant from both stations. As demand increased, the service area was expanded to align with the location of other pilot participants as shown in the figure below.

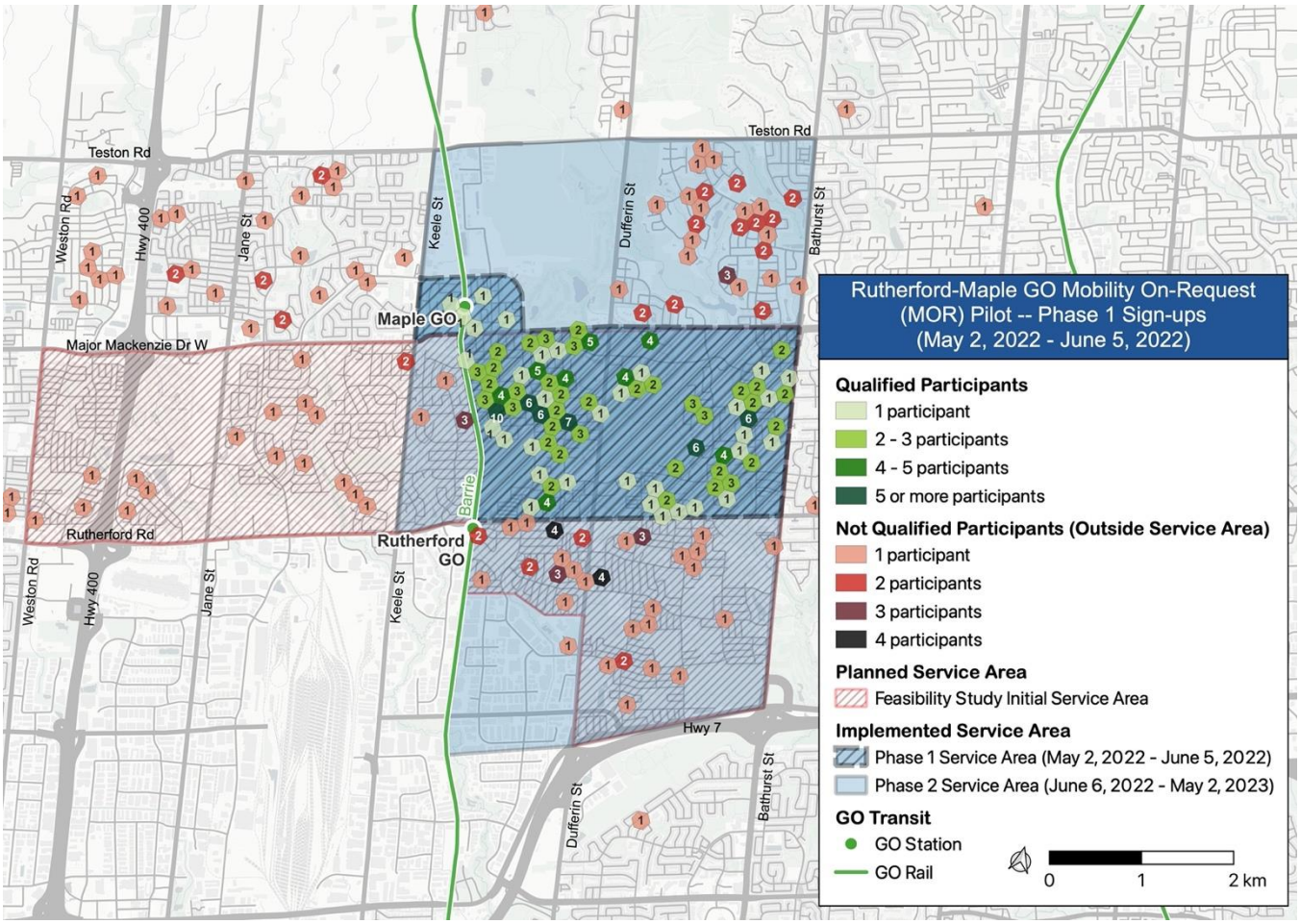


FIGURE 25. INTEREST IN THE SERVICE DURING PHASE 1 (MAY 2, 2022 – JUNE 5, 2022).

After the launch of the pilot, there was an increase in interested participants to the north and south of the Phase 1 Service Area. In an effort to increase ridership by aligning the service area to meet the demand, the project team expanded the service area beyond the primary service area recommended in the feasibility study in the northern and southern boundaries as shown in the figure below.

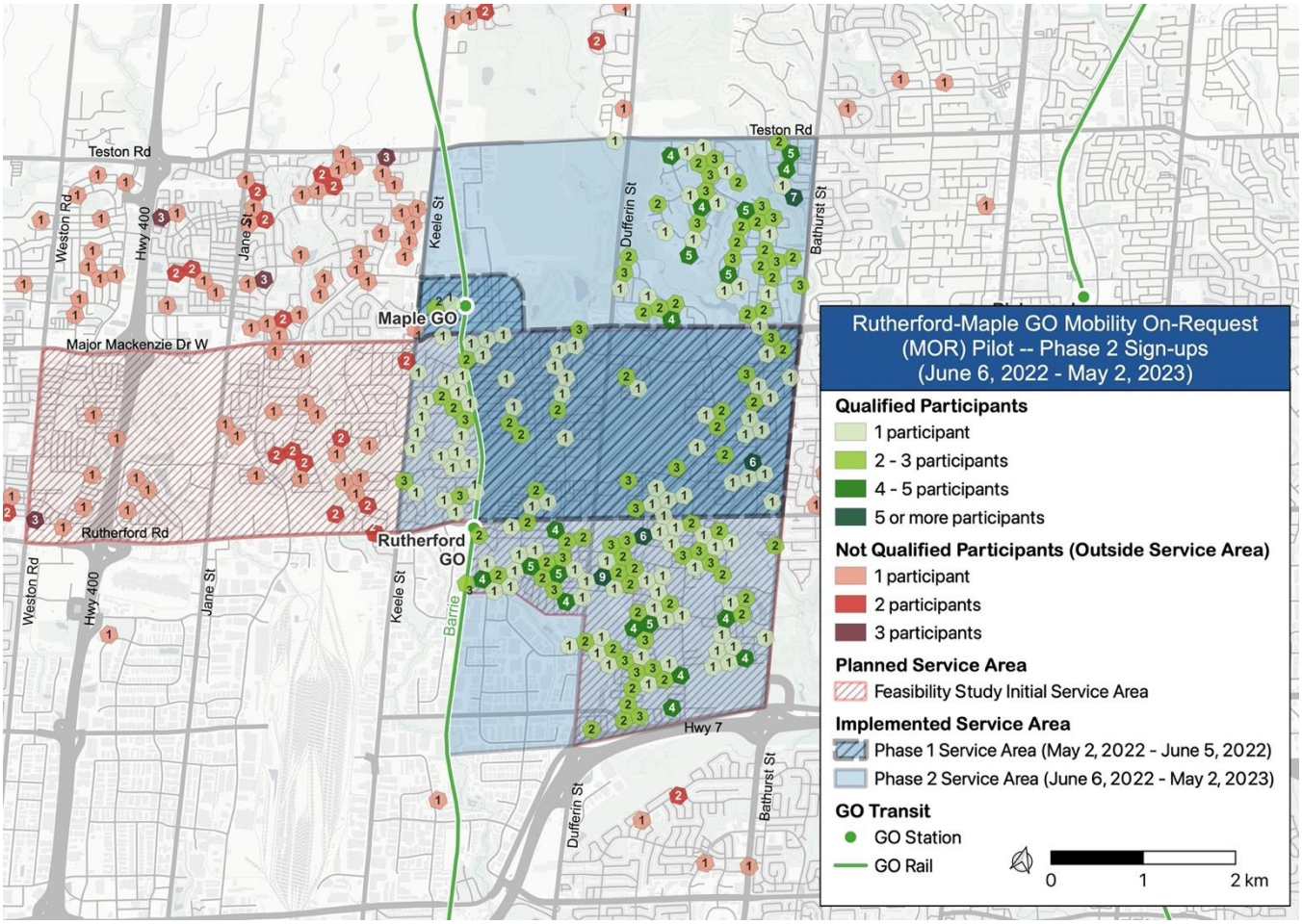


FIGURE 26. INTEREST IN THE SERVICE DURING PHASE 2 (JUNE 6, 2022 – MAY 2, 2023)

As discussed in section 3.1.2, while ridership of the pilot continued to increase over time, overall ridership did not match the level interest generated in phase 1 and phase 2 service areas. As such, a strategic decision was made to *not* expand the service area to the western boundary as initially recommended by the feasibility study. Instead, efforts were focused on maximizing demand in the existing service area through marketing efforts.

Another aspect of the service that was adjusted was the number of vehicles in service. While the initial demand estimations for the pilot service required six vehicles, the service was adjusted to use three vehicles to match demand.

> [I've had a] very good experience using this service. The bus I usually took to [the] GO station before pandemic is not running at my time. [The only other] option is to drive a car to the GO station. After using [the] Mobility On-Request, I just love it. It's so convenient to use.
>
> *- Survey 1 Respondent*

Considering the above findings, it is recommended that future micro-transit projects include an analysis of both current and latent demand to inform the business case and service design.[19] Although many residents in a service area may indicate interest in a micro-transit service, that interest may not translate into ridership if they are satisfied with their current travel options. Therefore, comprehensive demand modeling should consider, among other factors, travel patterns and characteristics (e.g., trip purpose, frequency), stated intent for a future service, current alternatives to the future service, individual feelings related to the current alternatives, etc.

Finally, agencies should anticipate making changes to the service design, in particular through the early stages of a micro-transit implementation. While micro-transit services are inherently flexible and dynamic, many transit authorities are encumbered by more restrictive processes that could restrict their ability to iterate quickly (e.g., collective bargaining that restricts when service changes can be made). Thus, to be successful, agencies and organizations should plan for these rapid, early iterations in their roll-out plans.

4.2 ALIGN ON-GOING MARKETING STRATEGY WITH REALIZED CUSTOMER PRIORITIES

Throughout the pilot, participants were asked what elements of the pilot service were most important to them[20]. Surveyed users expressed that their top five priorities were that it:

1. Provides more independence and convenience – a person is not dependent upon someone for drop-off/pick-up at the station;
2. Provides a cheaper option to travel;
3. Provides a faster method of travel compared to their previous mode of travel;
4. Provides another option to travel to/from the GO station; and
5. Removes worrying about parking a personal vehicle.

These reasons for using the pilot provided the project team with foundational messages that were more likely to resonate with audiences and encourage people to use the service. As the pilot evolved, specific

[19] Latent demand could include potential customers who depend on others for transportation or those who may not be as familiar with transit, especially in areas where first/last mile options are lacking. This may include residents such as youth without a drivers' licence (e.g., those who visit recreation and community centres) or people who frequent specific destinations such as malls and community programs.
[20] A summary of the results of all three surveys can be found at the end of this report.

communications were tailored to align with these key messages to highlight how the pilot service provides these benefits in different circumstances. For example, Survey 2 revealed that 42% of respondents were concerned with the cost of travel– this led to messaging which emphasized the no-cost element of the pilot[21].

Conversely, some key messages that the project team thought would resonate with users did not. Although the environmental impact of the project was a key message at the outset, participants consistently ranked environmental impact low on their reasons for choosing to use the service. From a communications and outreach perspective, understanding which messages resonate with customers is key to ensure that promotional material is relevant to audiences. In the final survey, customers focused on the benefits that the pilot created for them. Of the respondents, 52% expressed that the MOR pilot enabled independence and flexibility and met the need for not having to depend upon someone for drop-off/pick-up at the station. Of those who used the service, 32% appreciated the low-cost aspect of the service. Conversely, less than 10% of the surveyed users ranked reducing travel time, reducing stress associated with travel, and reducing GHG emissions of the service as the most important element of the MOR service[22], indicating these as being low priority or not achieved.

In summary, the marketing strategy of future micro-transit services should be designed based on where the realized benefits align with customer priorities. This should be iterated and refined as the service rolls out and the realized benefits are crystalized. This attracts customers but then also critically ensures that the customer experience aligns with the expectations set through the marketing and communications.

4.3 EARLY FEEDBACK IS VALUABLE TO IMPROVING THE SERVICE

Participants were also asked what elements of the service discouraged them from using the pilot service[23]. Obtaining this feedback early in the pilot enabled the project team to make adjustments to the service. The primary reasons for not using the pilot service and the project team's reflections are outlined in table below.

TABLE 1. REASONS FOR NOT USING THE PILOT

REASON NOT TO USE THE PILOT SERVICE	PROJECT TEAM REFLECTIONS
NEED THE SERVICE DURING HOURS OF THE	Participants expressed wanting to access the service earlier in the morning rush-hour or later in the evening rush-hour and have the ability to pre-book trips the night before rather than the day-of. This feedback was

[21] 46% of surveyed respondents ranked cost as their first or second most important travel decision-making factor.
[22] 8% ranked travel time reductions as their primary reason. 4% ranked reducing stress associated with travel and reducing GHG emissions as their primary reasons. See Survey 3 Question 4 for a graphical representation of this data.
[23] For a graphical representation of the responses, refer to the results of Survey 2 Question 11.

DAY NOT COVERED BY THE PILOT	considered by the project team however the service hours were ultimately scheduled to align with GO train schedule, as most trips occurred during the morning and afternoon peak hour that the service operated in. Further, this feedback was received from a handful of respondents and there was not enough evidence to suggest that changing hours would result in increased ridership. However, general survey feedback has confirmed that expectations around the convenience of booking trips to be on par with popular rideshare services.
PROCESS OF BOOKING A TRIP IS CONFUSING/ UNCLEAR	Throughout the pilot, participants expressed confusion about how to book trips. The project team took corrective action to adjust pilot onboarding materials early in the pilot to clarify areas of confusion. Some issues persisted throughout the pilot requiring a more comprehensive update to the user experience design of the ride booking application which could not be achieved during the pilot. However, this feedback was provided to YRT and will be used to update the Mobility On-Request application in the future. Ensuring that the customer experience while booking trips is seamless is essential for success.
SERVICE IS NOT SUFFICIENTLY RELIABLE TO ACCESS THE STATION ON TIME TO CATCH THE INTENDED GO TRAIN	Although trip data indicates that 85% of trips were completed within 5 minutes of expected time throughout the pilot, feedback from customers identified concerns associated with the perceived reliability of the service to get them to the station on-time to catch their intended train. Perceived unreliability stemmed from app glitches and cases of inefficient trip pooling which caused users to miss or nearly miss their intended train. Customers might also associate external causes such as traffic delays as service unreliability which dissuades trust in the transit system. Future pilot services should be mindful of this perceived reliability experienced by customers when assessing quantitative reliability metrics such as wait time and on-time performance. While delivering 85% of trips within five minutes of expected time may be a good operational performance target, customers who have been used to rideshares services expect on-time delivery for 100% of their rides. As poor perceived reliability may negatively impact potential uptake in the service, micro-transit services have a higher service standard to meet with respect to on-time delivery. Although traffic conditions are out of an agency's control, leveraging technology to keep customers updated with real-time information can improve the customer experience.

Generally, users and non-users identified a similar level of agreement over their reasoning for not choosing the service when travelling to the GO stations. For non-users, the distribution of participants across the various reasons was fairly consistent, whereas for users of the MOR service, the primary reason was

because they needed the service outside of the pilot service hours[24]. Finally, some users expressed that they did not use the pilot service because it is faster for them to take their personal vehicle, they need to visit additional destinations on their journey to/from the GO station, and they travel with more people than can be accommodated in the vehicle. However, these reasons were less prevalent for users of the MOR service[25].

4.4 CONDUCT LOCATION-BASED COMMUNICATION AND OUTREACH

Reflecting on communication and outreach approaches implemented throughout the pilot, over 50% of survey participants indicated that GO station events, GO station posters, and social media advertisement were very effective or effective promotional approaches as shown in Figure 7.

GO station events, staffed by project ambassadors who intercepted GO train riders, played an important role in on-the-ground promotion of the pilot service to the pilot's primary audience. Over the course of the pilot, project ambassadors were on-site at GO stations eighteen times generating 434 engagements (short conversations about the pilot) and 2,385 interactions (postcards distributed) with the project. Survey results also revealed that while over 80% of respondents indicated they would recommend the pilot to a friend, less than 30% of respondents indicated they learned about the pilot through a referral from someone who signed-up. This may be the case due to low ridership to the GO stations where those who heard about the service through word of mouth did not use it because they were not travelling to the GO station.

> I personally spread the word to my colleagues who I know live in York Region and asked them to tell their friends about this great service.
>
> *- Survey 3 Respondent*

Future projects offering a shared micro-transit services should consider similar approaches, especially location-based promotion either through on-the-ground ambassadors at locations the pilot would service (active engagement) or displays that help convey the pilot operates in this location (passive engagement) to reach potential audiences.

Timing of these communication and promotions is also important to successful engagement. Aligning promotions at certain periods such as back-to-school or back-to-work (i.e., fall promotions vs summer where ridership is lower) helps to maximize awareness of target audience and improve ridership. Learnings from other micro-transit services have shown that demand for micro-transit services typically takes time to build. Awareness and exposure to the service over time can help to grow ridership. Incentives such as

[24] For non-users, the following reasons were within 1-2 responses of each other: a confusing trip booking process, a need for the service outside of pilot service hours, faster to travel with a personal vehicle, and service unreliability.
[25] 4 users identified that is faster for them to take their personal vehicle. 7 users identified that they need to visit additional destination on their journey to/from the GO station. None of the users identified that they need to travel with more people than can fit into the MOR vehicle.

monthly prize draws for individuals who use the service for the first time can also be an effective way to get potential audiences to try the pilot for the first time. As discussed in section 3.1.2, the First Rider Incentive Program (FRIP) led to multiple new sign-ups and repeat users. The FRIP also encouraged some people who signed up for the pilot earlier but had never used the service to try it for the first time. Participants also suggested additional promotional tactics such as targeting social media groups (for example, Maple GO station has a dedicated rider-run Facebook page), local newspaper advertisements, and promotional integration with other transit service vehicles that could be considered.

5 MOVING FORWARD

The MOR pilot was a valuable experience that provided data and observations around planning and implementing a micro-transit service in a post-pandemic world. Going forward, it is recommended that the City assess the provision of future micro-transit service based on key factors and insights discussed in this report. These recommendations are summarized below.

Account for various factors that influence demand to design service: Micro-transit services are successful when they provide service in an area that meets mobility needs either by addressing challenges presented by existing options or by operating in areas underserved by transit. The final survey revealed potential non-transit locations of interest that residents would want to be connected to. These included the Vaughan Metropolitan Centre Subway Station, Vaughan Mills Centre, and Cortellucci Vaughan Hospital[26]. However, perceived interest in micro-transit does not translate into ridership if service does not meet the need for better mobility options. Therefore, to inform a business case for micro-transit services, demand analysis should consider data on trip purpose, frequency, and current modes of travel within a considered service area. An understanding of the existing ridership of transportation modes, latent demand, and current mobility challenges can inform the need for micro-transit as a sustainable solution.

Follow a comprehensive framework to market, monitor and adjust service: Building demand for micro-transit services takes time and requires raising awareness and exposure to the service over time. Once a service area is finalized, a public engagement strategy should be developed to guide communication and marketing efforts. In addition to mail outs and marketing at high traffic places like transit stations, promotional tactics such as targeting social media groups, local newspaper advertisements, and integrating promotions with other transit service vehicles can help spread awareness. Incentives, like monthly prize draws for first-time users, can be effective in encouraging residents to try the pilot service. Upon initial engagement efforts, iteratively tailoring communications to highlight key messages and benefits is also important for promoting the pilot service effectively. Understanding which messages resonate with customers is crucial for creating relevant promotional material. These can be informed through insights gathered from customer surveys as well as monitoring and communicating data such as on time performance, average travel time, wait time and number of trips delivered. This information should also be used to adjust the service to improve customer experience.

The shared micro-transit pilot was a valuable service to customers and an important initiative that provided key insights on operating a micro-transit service in a post pandemic world. Applying the lessons learned and key insights in assessing demand, engaging with customers, and monitoring performance can help identify service areas and shape future micro-transit pilots to sustainably meet mobility needs.

[26] Based on survey feedback responses of which 84 indicated Vaughan Metropolitan Centre Subway Station, 72 Vaughan Mills Centre, and 63 indicated Cortellucci Vaughan Hospital.

APPENDIX A - GLOSSARY

TERM	DEFINITIONS
FEASIBILITY STUDY INITIAL SERVICE AREA	Initial service area as identified in the feasibility study. The area is situated between Major Mackenzie Dr W and Hwy 7, and roughly bounded by Weston Rd to the west, Bathurst St to the east, and by Rutherford Rd to the south (for a portion of the service area).
FEASIBILITY STUDY FULL SERVICE AREA	Full service area as identified in the feasibility plan which extends 5 kilometres around Rutherford GO.
PHASE 1 SERVICE AREA	Implemented MOR service area from May 2, 2022, to June 5, 2022. The area is roughly bounded by Major Mackenzie Dr W to the north, Rutherford Rd to the south, the GO Barrie Line to the east, and Bathurst St to the west.
PHASE 2 SERVICE AREA	Implemented MOR service area from June 6, 2022, to May 2, 2023. The area is roughly bounded by Teston Rd to the north, Hwy 7 to the south, Keele St to the east and Bathurst St to the west.
SURVEY RESPONDENTS	Respondents for various surveys conducted before and during the pilot. Survey respondents include a combination of MOR users and non-users. Also referred to as “participants”.
QUALIFIED PARTICIPANTS	Participants that signed-up for the service and met the eligibility criteria to use the pilot. The eligibility criteria consist of the following: • Live within the service area; • Have access to a cellphone; and • Travel to Rutherford GO and/or Maple GO.
NOT QUALIFIED PARTICIPANTS	Participants that signed-up for the service and did not meet the eligibility criteria to use the pilot.
USER	Qualified participants who took at least one trip over the course of the pilot. Also referred to as “rider” or “customer”.
NON-USER	Qualified participants who did not use the service.
REPEAT USER	Users who took more than one trip over the entire course of the pilot.

TERM	DEFINITIONS
CONSISTENT USER	Users who took a trip at least once in a given a week since their first trip.
FREQUENT USER	Users who took a trip at least once in a given week for 75% of the total number of weeks since their first trip.
OCCASIONAL USER	Users who took a trip at least once in a given week for 50% of the total number of weeks since their first trip.
RIDE TO GO PROGRAM	Collaborative fare integration program with Metrolinx. Allows customers to travel on YRT for free when showing proof-of-payment for a trip on GO Transit. Available on any YRT and contracted TTC route in York Region travelling to or from GO Transit services. Customers must use a PRESTO card, credit or debit card, or valid GO Transit fare to use this fare integration.
FIRST RIDER INCENTIVE PROGRAM (FRIP)	Incentive program implemented during February and March to encourage sign-ups and ridership. Users who took their first trip during February or March were entered into a prize draw.
STATION ACTIVATION EVENTS	Marketing activities held during the morning and evening rush-hour periods at Rutherford GO and Maple GO to distribute informational postcards about the service and answer questions.
LINKED TRIPS	Trips that pool two or more users travelling to nearby destinations.
MOBILITY AIDS	Rider-owned devices used to support mobility. Mobility aids include walkers and wheelchairs.

APPENDIX B – MARKETING METHODOLOGY

TABLE 2. COMMUNITY-BASED SOCIAL MARKETING METHODOLOGY AND APPLICATION

COMMUNITY BASED SOCIAL MARKETING METHODOLOGY	METHODOLOGY APPLICATION
IDENTIFY DESIRED BEHAVIOUR	The desired behaviour was to encourage uptake of the Mobility On-Request pilot, unlocking audiences that would consider choosing this mode over driving a personal vehicle. The desired behaviour was intended to translate to a modal shift.
IDENTIFY BARRIERS AND BENEFITS	Planning for the start of the pilot service involved documenting barriers and benefits to participation to confirm outreach approaches and craft communication and outreach messaging. The project team identified barriers they could address, such as informing audiences where and how to use the pilot, but also external barriers beyond the control of the team, most notably COVID-19's ongoing impacts to travel behaviour. The project team also identified benefits which served as important key messages about the pilot, and an opportunity to gather feedback from users on how important these benefits (and others they identified) are to their transportation decision-making.
STRATEGY DEVELOPMENT	Developing the pilot service communication and outreach strategy involved approaches that reduce barriers to participation and maximize benefits to potential users. Disseminating information about the pilot through targeted outreach opportunities and broader service area-wide communication provided a variety of ways to attract potential riders. In addition to removing barriers such as user fare (the pilot operated free for Presto card users travelling to/from the GO train), additional incentives to encourage

COMMUNITY BASED SOCIAL MARKETING METHODOLOGY	METHODOLOGY APPLICATION
	participation were provided to encourage people to try the service for the first time. Over the course of the pilot, messaging and incentives were adjusted based on engagement with these approaches.
TESTING APPROACHES	Throughout the pilot the project team sought feedback on service delivery and outreach approaches through user experience survey checkpoints, and ongoing engagement with users as required when comments, questions, or concerns were received. This feedback helped to inform changes to the pilot including adjusting how the team's messaging positioned the pilot and the area of service provided.
BROAD SCALE IMPLEMENTATION AND EVALUATION	Regular assessment of pilot sign-ups and ridership helped to refine the pilot service delivery to evaluate and understand potential adjustments to the pilot to expand the service and consider permanent service implementation.

APPENDIX C – PILOT METRICS

TABLE 3. PILOT METRICS

METRIC	DESCRIPTION	GOAL	SECTION	SUMMARY STATS
CUSTOMER SATISFACTION	The proportion of users who indicate that they are satisfied with the service.	*Societal*	*3.1.3 Customer Experience*	*80% of customers indicated that they were very satisfied or satisfied with the service.* *Informed by Survey 3 Question 2.*
PERCEIVED LEVEL OF FIRST/LAST MILE MODE CHOICE	Commuters' perceived level of first/last mile options before and after the pilot launches.	*Societal*	*3.1 Societal and Customer Experience*	85% of customers identified the MOR as their preferred method of travel to/from Rutherford GO and Maple GO. Informed by Survey 2 Question 8.
SHARE OF PHONE-IN REQUESTS	The share of all trip requests that are made via the call centre rather than through the app.	*Societal*	*3.1.4 Equitable and Accessible Access*	5% of trips were booked through phone-in requests.
SHARE OF ACCESSIBLE VEHICLE REQUESTED	Number of trips where customers request an accessible vehicle.	*Societal*	*3.1.4 Equitable and Accessible Access*	0 customers requested an accessible vehicle.
SHARE OF ACCESSIBLE VEHICLE TRIPS COMPLETED	Number of trips completed using an accessible vehicle.	*Societal*	*3.1.4 Equitable and Accessible Access*	0 trips were completed using an accessible vehicle.
SHIFTS IN HOME DEPARTURE TIME	Commuters' perceived level of shifts in departure time as a result of using the micro-transit service compared to previous modes.	*Societal*	*3.1.3 Customer Experience*	*Customers did not rank time saved as the primary reason for choosing the MOR service.* *Informed by Survey 3 Question 4.*
MODAL SHIFT	The proportion of micro-transit users who previously used another mode to access Rutherford GO and/or Maple GO stations.	*Environmental/ Societal*	*3.1 Societal and Customer Experience*	85% of customers identified the MOR as their preferred method of travel to/from Rutherford GO and Maple GO. Informed by Survey 2 Question 8.
REASON FOR MODAL SHIFT	Customer-identified reasons for choosing the micro-transit service.	*Environmental/ Societal*	*3.1.3 Customer Experience*	*Most common reasons for choosing to use MOR service were: gives another travel option (66%), do not need to worry about parking at the GO station (60%), and provides more independence and convenience (60%). Other reasons include: cheaper, faster, more reliable, and enjoyable,*

METRIC	DESCRIPTION	GOAL	SECTION	SUMMARY STATS
				alternative travel option on poor weather days, lower environmental impact, safer, allows other uses of car for household members, reduces complexity of juggling dop-off/pick-up by another member. *Informed by Survey 2 Question 18.*
NEW GO CUSTOMERS	The number of users who took a trip connecting to the GO Train who previously did not use the GO Train for the trip or did not make the trip at all.	*Environmental/ Societal*	*3.1.3 Customer Experience*	*15 users that used the MOR service did not previously use the GO Train for the trip or did not make the trip at all.* *Informed by Survey 2 Questions 1 and 3.*
WAIT TIME	Distribution of time spent waiting to be picked-up by the service vehicle. Difference between requested pickup time and vehicle arrival time.	*Societal*	*3.1.3 Customer Experience*	*The average trip wait time was 0 minutes. 85% of the pick-ups and drop-offs were within five minutes of the expected time.*
IN-VEHICLE TRAVEL TIME	Distribution of in-vehicle travel times of all users traveling to or from the GO station.	*Societal*	*3.1.3 Customer Experience*	*The average in-vehicle travel time was 10.2 minutes.*
RIDERSHIP	Number of trips taken by micro-transit customers.	*Societal/Economical*	*3.1.2 Realized Demand for the Service*	*4641 trips were taken by micro-transit customers.*
CUSTOMER RETENTION	The proportion of users who use the service at least once a week after their first use.	*Societal/Economical*	*3.1.2 Realized Demand for the Service*	*1 user used the service every week since their first trip. However, 16% of users took a trip at least once in a given week for 75% of the weeks after their first use. 40% of users took a trip at least once in a given week for 50% of the weeks after their first use.*
ESTIMATED GHG EMISSIONS BASED ON FUEL USAGE DATA	A measure of GHG emissions from pilot vehicles from delivering micro-transit trips.	*Environmental*	*3.2.2 Change in GHG Emissions*	*The pilot emissions potentially ranged from 2,100 to 3,500 kg CO^2e, using a range of 20% to 200% to include deadheading and idling emissions.* *Given these calculations, the pilot reduced up to 411 kg CO2e (16% of GHG emissions) through the use of a green fleet and by delivering linked trips.*
VEHICLE-KILOMETRES TRAVELLED (VKT)	The estimated micro-transit vehicle-kilometres travelled (VKT).	*Environmental*	*3.2.2 Change in GHG Emissions*	*The VKT of the MOR was approximately 15,250 vehicle kilometres. This does not include deadheading and idling as it was not captured by the MOR system. Based on*

METRIC	DESCRIPTION	GOAL	SECTION	SUMMARY STATS
				assumptions, linked trips reduced approximately 710 vehicle kilometres travelled.
PROPORTION OF GO ACCESS TRIPS	The proportion of trips to or from the GO station by micro-transit.	*Environmental*	*N/A 3.1.2.1*	*In order to qualify for the service, participants were required to connect to the GO stations. Therefore, all trips were taken to/from the GO stations.*
SPATIAL DISTRIBUTION OF ORIGINS/ DESTINATIONS	Distribution of pick-up and drop-off locations to/ from Rutherford GO and Maple GO stations.	*Environmental*	*3.1.2 Realized Demand for the Service*	*See Section 3.1.2 for spatial distribution maps.*
TRAVEL TIME PENALTY	Additional travel time incurred if the micro-transit vehicle makes multiple stops between a customer's pickup point and the GO station.	*Environmental/ Economical*	*3.2.1 Linked Trips*	*On average, linked trips incurred 4 minutes of additional travel time.*
SERVICE PRODUCTIVITY - AVG # OF PASSENGERS/ VEHICLE HOUR	The average number of passengers carried per vehicle-hour.	*Economical*	*3.3.2 Provide an Economical Means for the City to Enable First/Last Mile Transportation Options*	*On average, the MOR carried 3.2 passengers per vehicle-hour.*
NET OPERATING COST PER PASSENGER	The average cost to serve a passenger by micro-transit.	*Economical*	*3.3.2. Provide an Economic Means for the City to Enable First/Last Mile Transportation Options*	*As ridership increased, the average cost was $25-$36 per trip.*

APPENDIX D – SURVEY RESULTS

A summary of each of survey conducted are provided below. Full summary reports of the three user experience surveys are included on the following pages.

Survey #1: July 2022

The first user experience survey was intended to gather initial insights into participant travel behaviour and experience using the pilot. The survey gathered information on participant travel behaviour, confirming that pre-pandemic many respondents used Rutherford GO and Maple GO station primarily to commute to work. Respondents consisting of both users and non-users identified that they travelled to/from these GO stations primarily as the driver (55%) or passenger (21%) in a personal vehicle. The survey also provided baseline information about users travel experience. Participants were generally satisfied with the information provided about the pilot and their initial experience using the service. Among both users and non-users, 78% and 81% indicated that the pilot information provided, and the sign-up process was very easy or easy to understand, respectively. Feedback from this survey informed changes to the pilot participant welcome package to clarify some aspects of how to book a trip in response to feedback from users.

Survey #2: February 2023

The second user experience survey was intended to gain further insight into riders' experiences using the pilot and changes to travel behaviour due to return to in-person school and work changes. Although ridership did not reach pre-pandemic levels, it did increase as COVID-19 restrictions were further lifted and resulted in employees being expected to return to office for a portion of the week and government and some employers lifting restrictions to allow non-vaccinated employees to return to work. The survey results identified that return to work/hybrid work arrangements generated additional interest in the pilot and many (85%) of pilot users indicated it is their preferred mode of travel. This was evident in analysis of ridership data which showed a 43% increase in trips in September 2022, which stayed consistent until December (where ridership dropped due to the holidays).

Survey 2 also sought to understand the impact of linked trips on travel behaviour and decision to use the MOR service. Participants identified that they are willing to accept a ride that takes 5 minutes longer to facilitate pooled trips as long as they are still on-time for their train. Participants were consistent with Survey 1 in noting that the flexibility, independence, and not needing to worry about parking at the station factored strongly in their reason to use the service. Feedback on service improvements was also consistent with Survey 1 with participants noting a desire for improvements to the ride booking system. New feedback identified concerns associated with pooled trips routes that participants perceived as awkward or inefficient. Feedback from this survey reinforced the need for user experience design updates to the booking application and ongoing monitoring of pooled trip routes and feedback from users to refine this element of the service. This feedback was shared with YRT to support the calibration of the MOR system to more efficiently pool linked trips and improve instructions in the MOR user manual.

Survey #3: May 2023

The Public Engagement Plan had planned for a total of five surveys to track customer experience throughout the pilot. However, to avoid survey fatigue and the overall low consistent ridership from users, it was decided that the number of surveys will be limited to three. The final user experience survey was intended to understand participants' overall assessment of the pilot and opportunities for expansion. Participants indicated that they remained satisfied with the pilot service noting that service quality generally stayed the same throughout the pilot, although some identified a perceived decline in service quality and reliability. Participants felt that travel time (17%), pick-up (19%), and ability to book a ride (23%) got worse over time due to trip pooling and availability of vehicles. While ridership data suggested that travel times remained fairly consistent throughout the pilot and 85% of trips were picked-up/dropped-off within 5 minutes of their scheduled times, the perceived delay could have resulted from external factors such as road construction and closures. Participants also expressed interest in additional micro-transit service areas in the City of Vaughan including Vaughan Metropolitan Centre Subway Station (69%), Vaughan Mills Centre (60%), and Cortellucci Vaughan Hospital (52%). Feedback from this survey contributed to the final evaluation of the pilot service as highlighted in this report and will be considered as Mobility On-Request continues to evolve in York Region.

Rutherford and Maple GO Mobility On-Request Pilot

User Experience Survey #1 Summary

September 7, 2022

Prepared by

LURA
LISTEN · UNDERSTAND · RELATE · ADVANCE

For

VAUGHAN

Executive Summary

About This Survey

The City of Vaughan in partnership with York Region Transit and Metrolinx launched its Rutherford and Maple GO Mobility On-Request pilot service on May 2nd, 2022 as part of a year-long initiative to test how a Mobility On-Request service could reduce demand for parking at these GO stations. Beyond this primary goal, the pilot is also interested in working towards the goals of reducing greenhouse gas emissions and vehicle traffic.

The following summary documents feedback received from 92 individuals who signed up to participate in the pilot. This includes both individuals that have used the pilot service since May 2nd, 2022 and individuals who have not used the pilot service yet.

Conducted just over two months after the start of the pilot, the survey asked participants about their initial experience accessing information about the pilot, travel behaviour, and the experience of booking and using the Mobility On-Request service. Input received from survey respondents will help the pilot project team refine the service to better serve participants.

Key Findings

Results from the survey revealed several key insights:

- Overall, respondents were generally satisfied with the information provided about the pilot.
- Nearly two-thirds of pilot users shifted their mode choice from driving and parking, or being driven to the station to the Mobility On-Request service
- Pilot users identified that the independence, convenience of use, and shorter travel time factored highly into the reason they chose to use the pilot
- Respondents identified the desire for service to be available earlier and later in the day, and technical issues when booking a trip as the two primary issues impacting their use of the service.
- Several individuals who have not used the pilot service yet indicated this is because their workplace has not required them to regularly return to the office yet – though they anticipate they will need to commute more by GO train in the coming months at which point they intend to use the service.

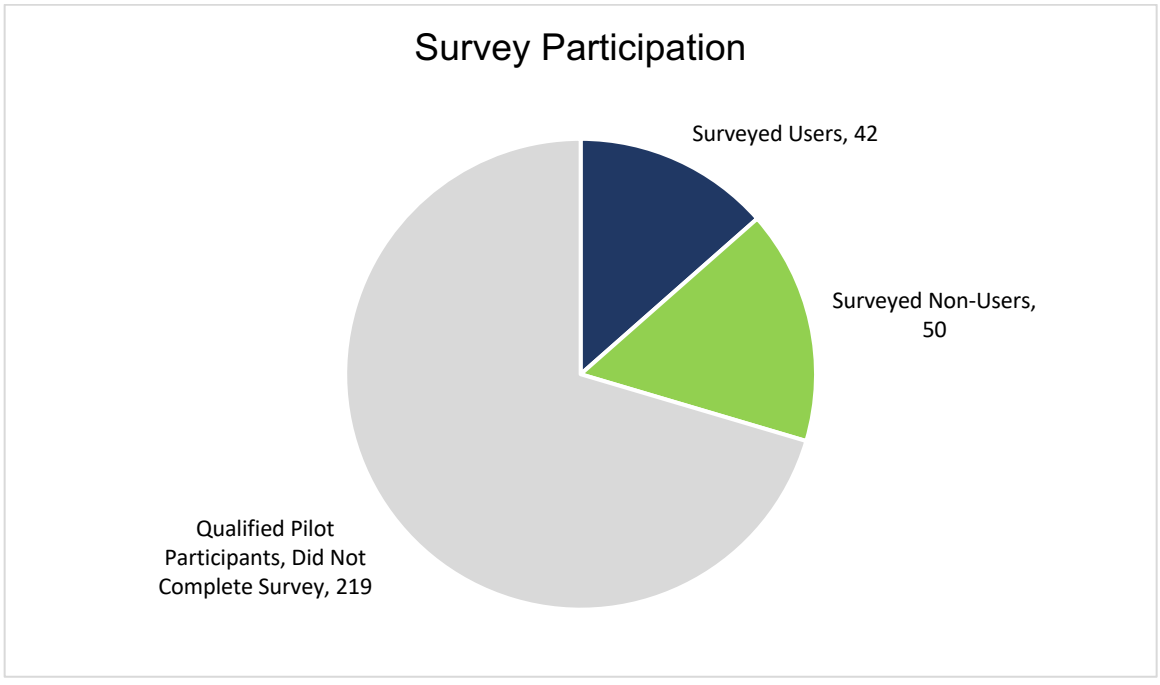
Additional details from the survey findings are documented in the following pages in the “What We Heard” section of this summary.

Project Background

The City of Vaughan is partnering with York Region Transit (YRT) and Metrolinx to bring Vaughan commuters the Rutherford and Maple GO Mobility On-Request Pilot Project which will help commuters get a ride to and from these two GO stations.

Participants of the pilot use the Mobility On-Request app to book a free (when connecting to GO train service using a PRESTO card) YRT-operated vehicle to pick them up from their home and get dropped off at their desired GO station. The same service will be provided in the evening to return home from the GO station.

The pilot service began on May 2nd, 2022 and is anticipated to run for 12 months. Of those who signed up for the pilot, 330 people have been qualified to participate in the pilot (58% of all respondents qualified), and 530 trips have been taken by 60 users (from May 2nd to July 29th, 2022). The survey was sent to the 311 residents who qualified for the service at the time the survey was made live to obtain feedback on their experience thus far. These qualified residents include those who use the service and those who signed up and qualified, but have not used the service. The following graph shows the percentage of survey respondents who are current users of the service and those who are not, at the time the survey was sent out.



The Rutherford and Maple GO Mobility On-Request Pilot Project is funded by the Federation of Canadian Municipalities through the Green Municipal Fund.

Survey Information

Definitions

This summary uses the following definitions when qualifying the participant groups being discussed:

- *Approved Participant:* Is an individual who lives within the Mobility On-Request service area, has signed up for, consented to and been approved to participate in the pilot program -
- *User:* Is an Approved Participant who has signed up to participate in the Mobility On-Request Pilot program and has made at least one trip since the start of the pilot program.
- *Non-User:* Is an Approved Participant who has signed up to participate in the Mobility On-Request Pilot program but has not made a trip so far.

Survey Communication

Approved Participants received an invitation via email to participate in this survey on July 11, 2022. Instructions specified the purpose of the survey to better understand what is working well with the service, how it could be improved and participant travel behavior. It specified that the survey would close on July 29, 2022.

Approved Participants were reminded to complete the survey on July 25, 2022, via email.

Survey Details

The survey was available from July 11, 2022 to July 29, 2022 and was conducted two months after the start of the pilot service. The survey consisted of four sections as follows:

- Section 1: Initial experience accessing information about the pilot
- Section 2: Travel behaviour
- Section 3: Experience of booking and using the Mobility On-Request service.
- Section 4: User Demographics

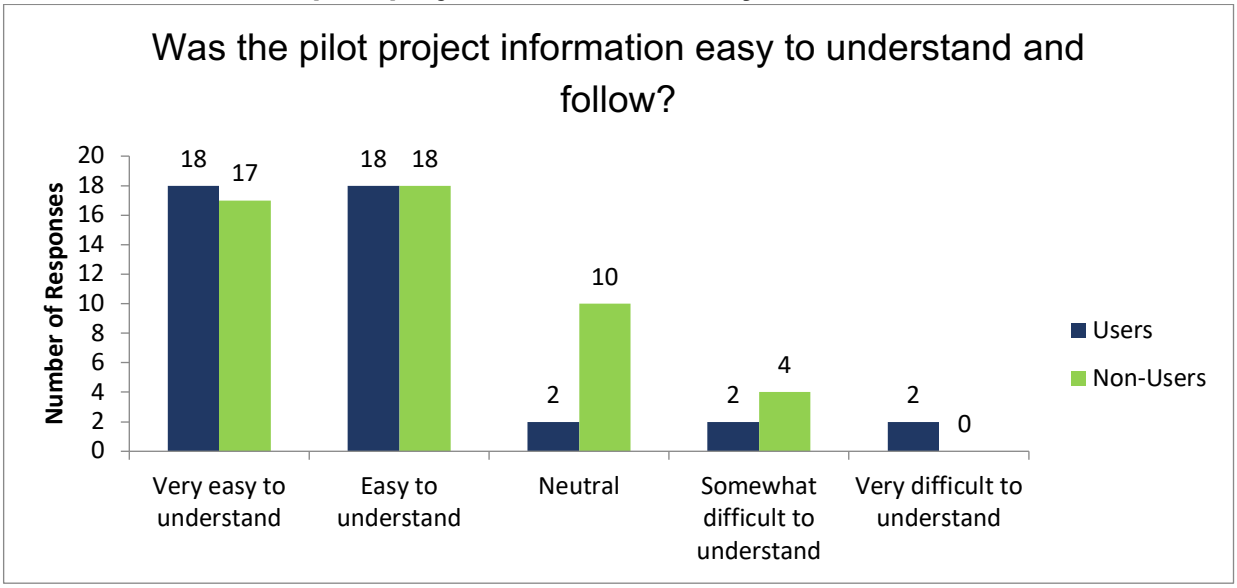
All Approved Participants responded to questions in Section 1 and 2. Participants who indicated they have used the pilot service were asked additional questions in Section 3. In Section 4, all Approved Participants were given the option to provide demographic information about themselves and to enter a into a contest for one of three gift card prizes as a thank you for completing the survey.

Response Rate

In total, 92 Approved Participants completed the survey. Of these respondents, 42 were Users and 50 were Non-Users.

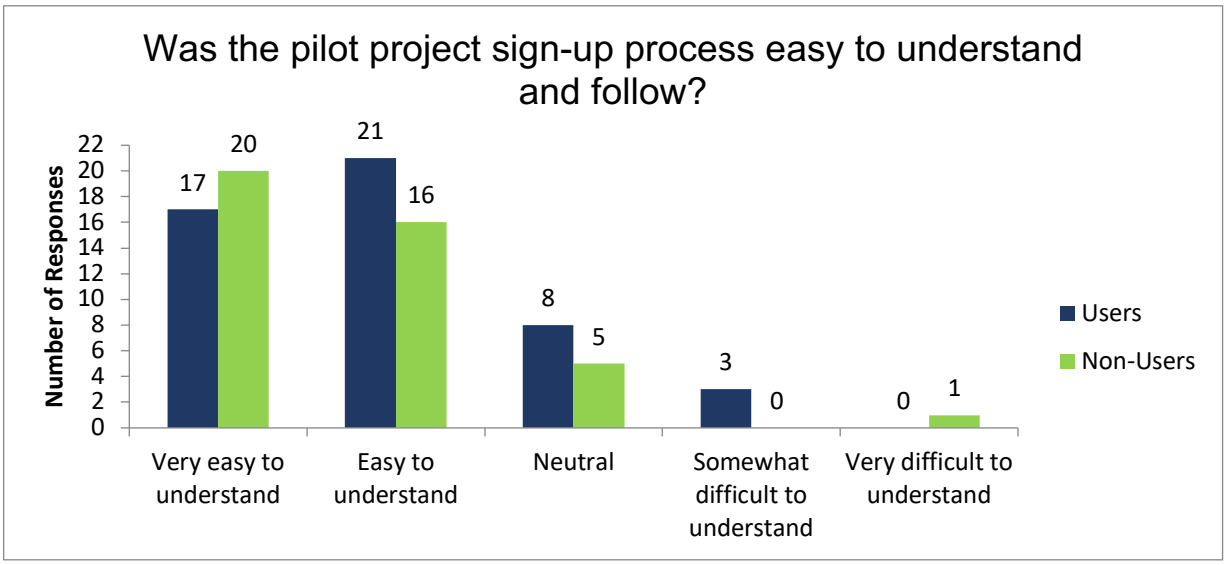
What We Heard

Question 1 -Was the pilot project information easy to understand and follow?



Among both the User and Non-User participants, 78% of all respondents indicated the pilot project information was either “Very Easy” or “Easy” to understand and follow.

Question 2 - Was the pilot project sign-up process easy to understand and follow?



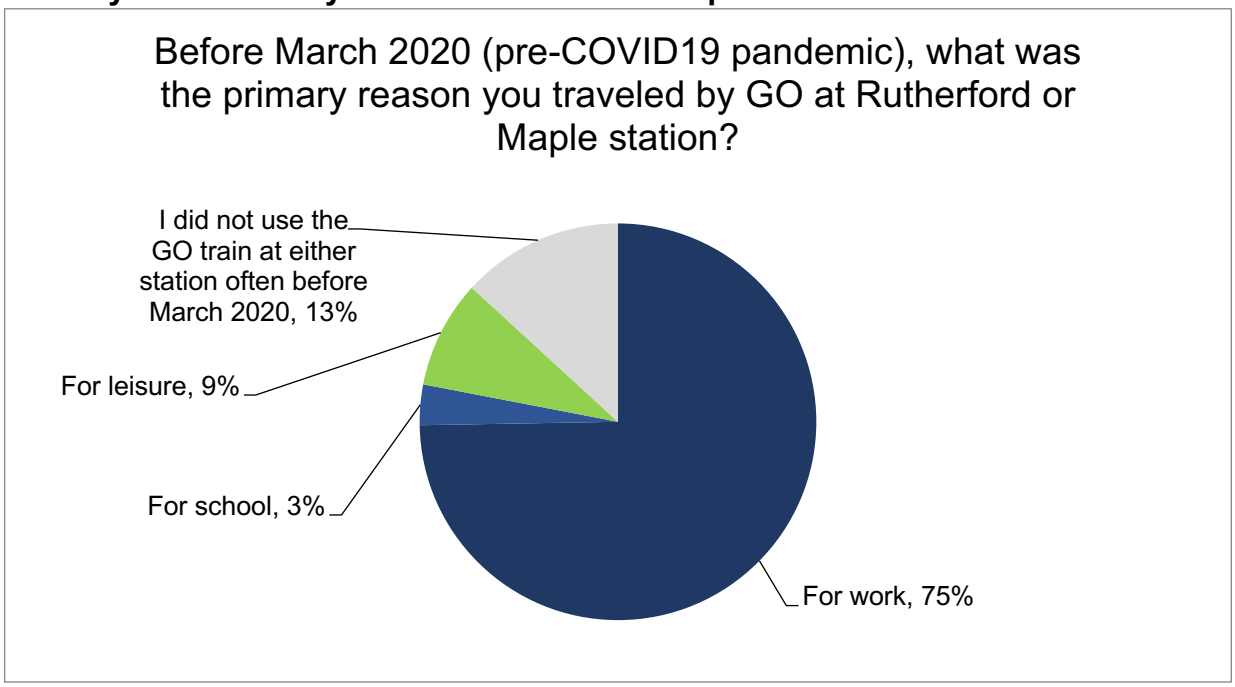
Among both the User and Non-User participants, 81% of all survey participants indicated the pilot project sign-up process was either “Very Easy” or “Easy” to understand and follow.

- Some respondents that selected “Somewhat Difficult to Understand” or “Very Difficult to Understand” to Question 1 or 2 provided additional insight into why it was difficult to understand project and sign-up information. Eleven (11)

respondents provided written comments, eighty-three (83) respondents skipped this question. Key themes from this feedback included:

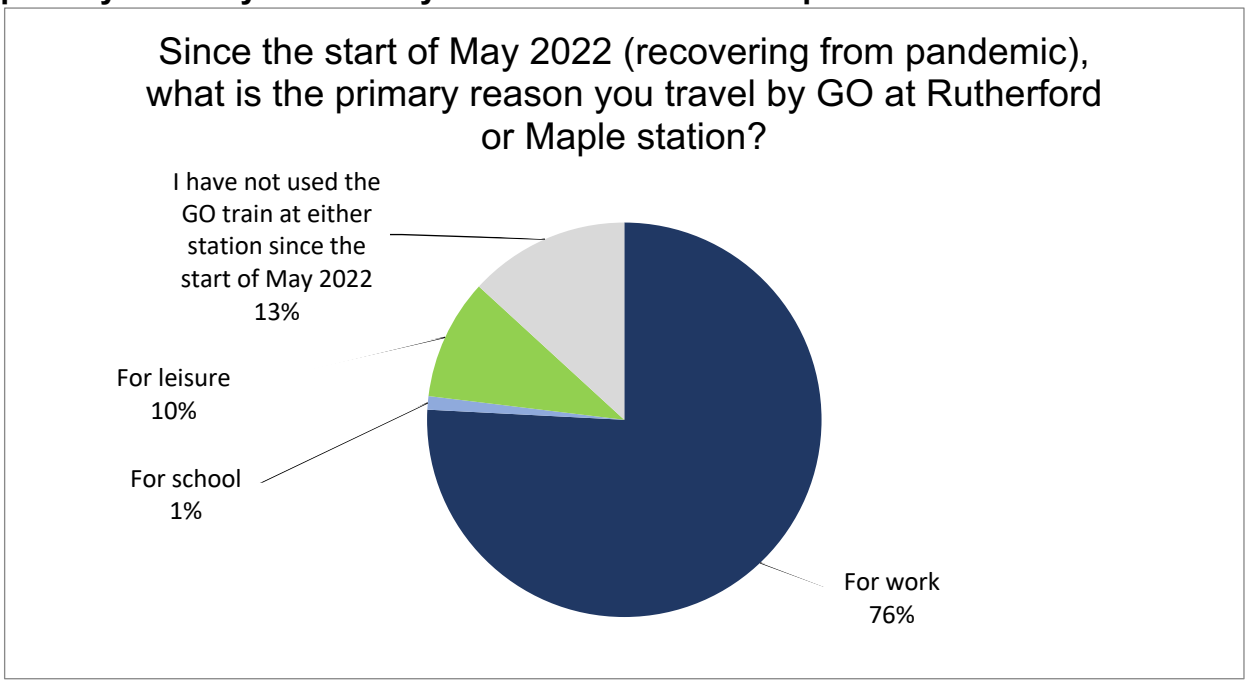
- Lack of clarity regarding key pilot information such as how much it costs and what are accepted payment methods, and the geographic limit of the service area. Several indicated instructions could be more clear, concise and easily accessible in the welcome package or embedded in the app.
- A few respondents indicated they were initially unable to book a ride or had difficulty but were assisted successfully by project staff to resolve their issues.

Question 3 - Before March 2020 (pre-COVID19 pandemic), what was the primary reason you traveled by GO at Rutherford or Maple station?



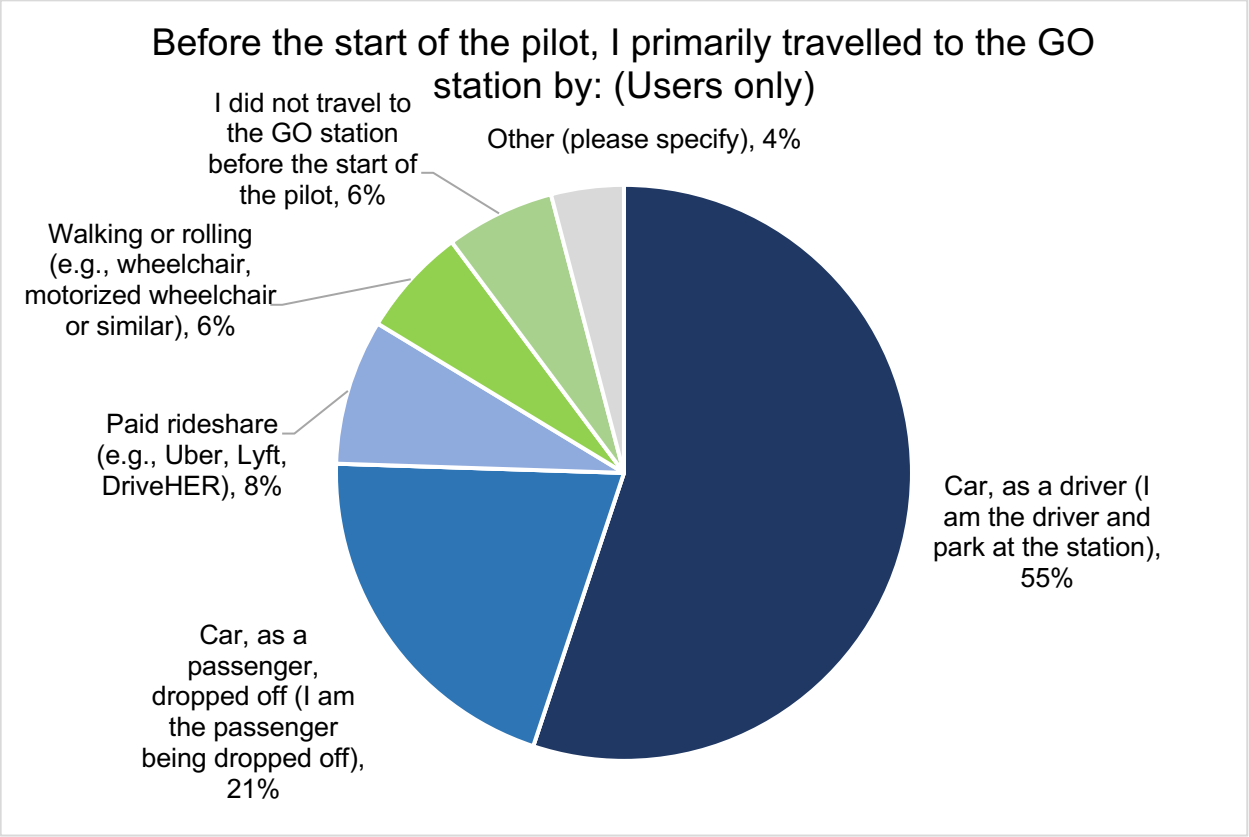
The majority (75%) of respondents travel from Rutherford and Maple GO station for work purposes - this aligns with historical travel data gathered by Metrolinx through their 2019 GO Rail Origin Destination Survey. A small proportion of respondents (13%) indicated they did not use the GO train often before March 2022.

Question 4 - Since the start of May 2022 (recovering from pandemic), what is the primary reason you travel by GO at Rutherford or Maple station?



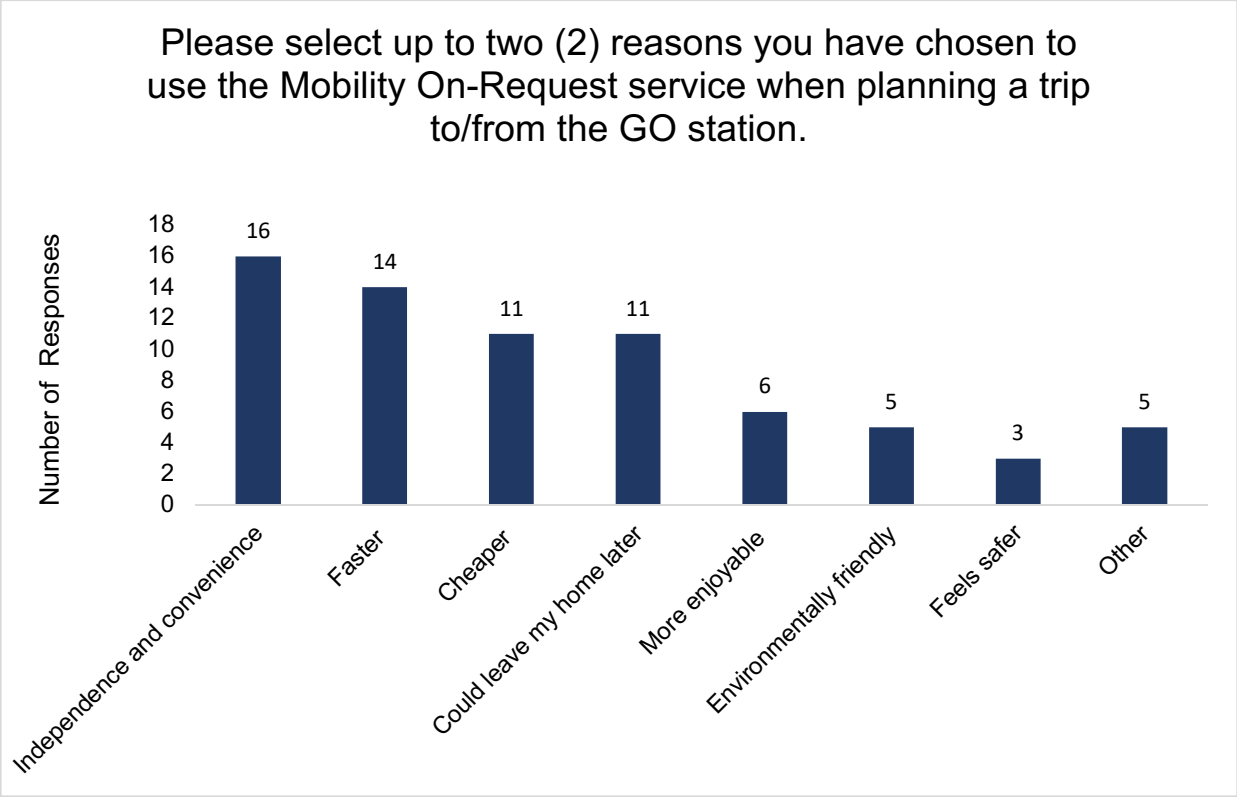
Similar to before March 2020, the majority of respondents (76%) travel from Rutherford and Maple GO station for work purposes, while 13% have not used the GO train at all since May 2022.

Question 5 - Before the start of the pilot, I primarily travelled to the GO station by:



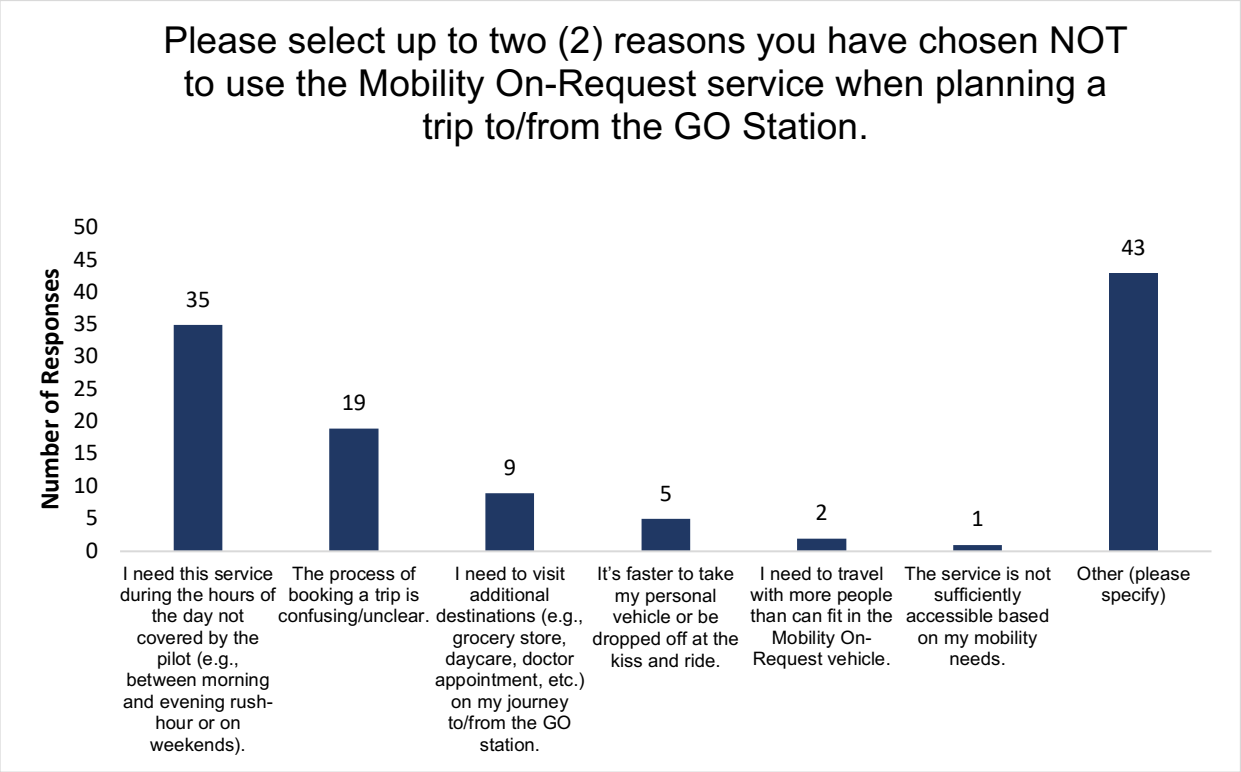
Prior to the Mobility On-Request service most respondents travelled to a GO Station by driving (either as the driver that parks, or as a passenger where the driver either parks or drops them off). Of note to the pilot project's objective to reduce demand on the GO station parking lot, 64% of pilot Users in this survey (27 of 42 participants) shifted their mode choice to the Mobility On-Request service.

Question 6 - Please select up to two (2) reasons you have chosen to use the Mobility On-Request service when planning a trip to/from the GO station.



Service User respondents indicated that the top reasons they use the pilot are that it provides a sense of independence and convenience, and it makes their trip to the station faster than their previous mode of travel. Several respondents that answered, “Other” indicated that the pilot provides a transportation option when a personal vehicle is not available because it is in use by another member of the household.

Question 7 - Please select up to two (2) reasons you have chosen NOT to use the Mobility On-Request service when planning a trip to/from the GO Station.



When all survey respondents were asked for the rationale for not using the Mobility On-Request service respondents indicated the top two reasons for not using the service is that they require it during times outside of the current service offering, and that the process of booking a trip is confusing/unclear. No responses were received for the response "I am not a PRESTO card user".

Thirty-eight (38)[1] respondents had other reasons for their decision to not use the service. Key themes from the "other" responses are sorted by Internal Factors (which can be controlled by the project team) and External Factors (which cannot be controlled by the project team):

Internal Factors (13 total / 34%%)

- Several respondents indicated that the service was not available or would not accept their ride as there were no vehicles available. This accounted for 8 responses.
- Several respondents indicated that they have experienced significant technical glitches with booking a trip (primarily the app not detecting start and end points

[1] Although 43 respondents chose other, five of the comments in other were "N/A". The remaining 38 respondents provided actual other reasonings.

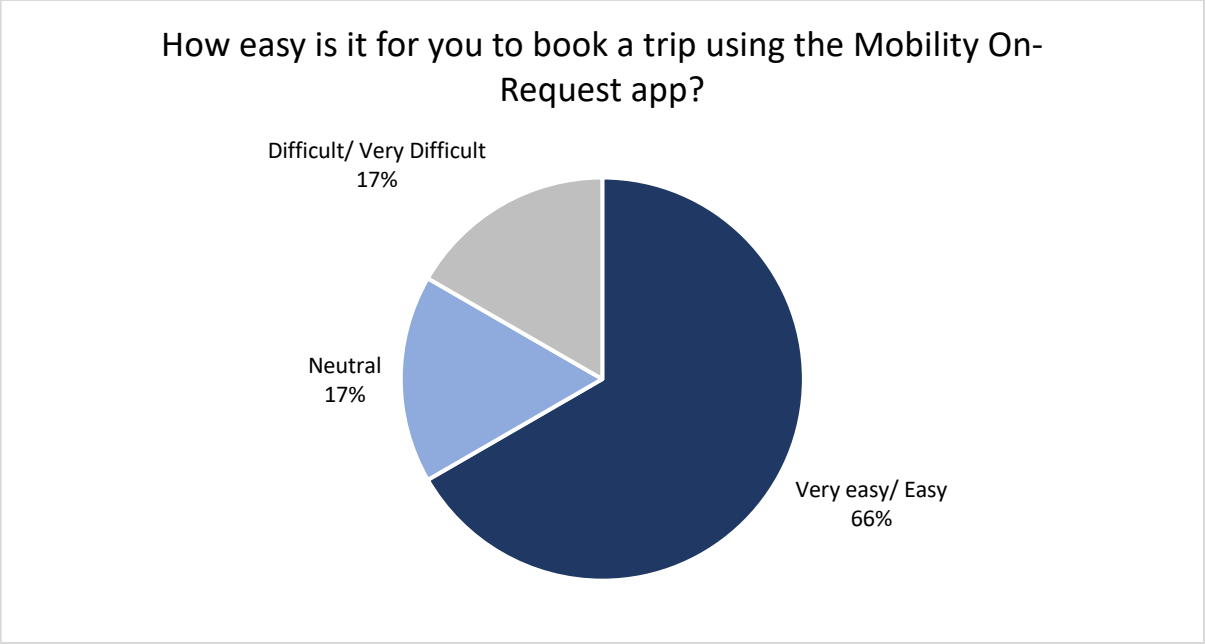
correctly) that has discouraged them from using the service. This accounted for 3 responses.

- Respondents indicated that booking three hours ahead of time doesn't allow them to make bookings for morning trips easily. They recommend being able to book morning trips the night before. This accounted for 2 responses.

External Factors (25 total / 66%)

- Respondents are currently not required to regularly travel to the office due to ongoing work from home or hybrid working arrangements. This accounted for 11 responses making it the largest "Other" response category and the third most significant reason for not using the service overall.
    - Many indicated that they would soon be required to return to in-person work on a more regular basis at which time they would use the service.
- Some indicated they only intended to use the service as a back-up to other modes
- Some indicated other specific and unique personal reasons that have prevented them from utilizing the service to-date.

Question 8 - How easy is it for you to book a trip using the Mobility On-Request app?

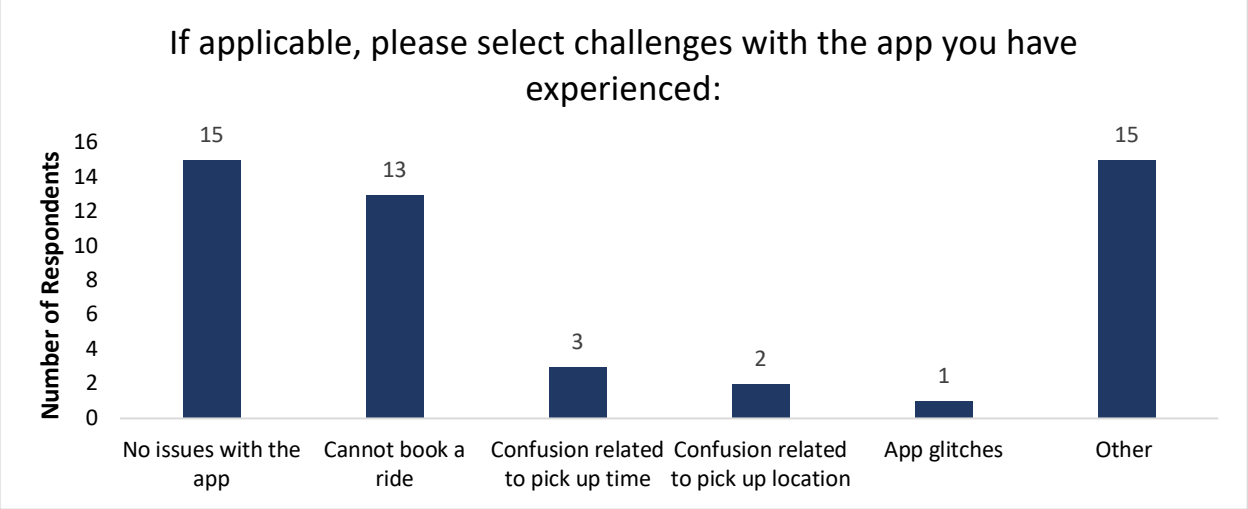


The majority of respondents (66%) indicated that it is "Very Easy" or "Easy" to book a trip using the Mobility On-Request app, while 17% find the experience "Difficult" or "Very Difficult".

Users that selected "Very Difficult" or "Difficult" in Question 8 provided additional insight into why it was difficult to book a trip. These individuals identified indicated that the functionality of the app has a technical glitch/error when selecting a pick-up/drop-off

location. Some indicated it was unclear that they had to click the black GO station icon to properly select a destination. Some indicated that when they encounter this issue they call in to book a trip.

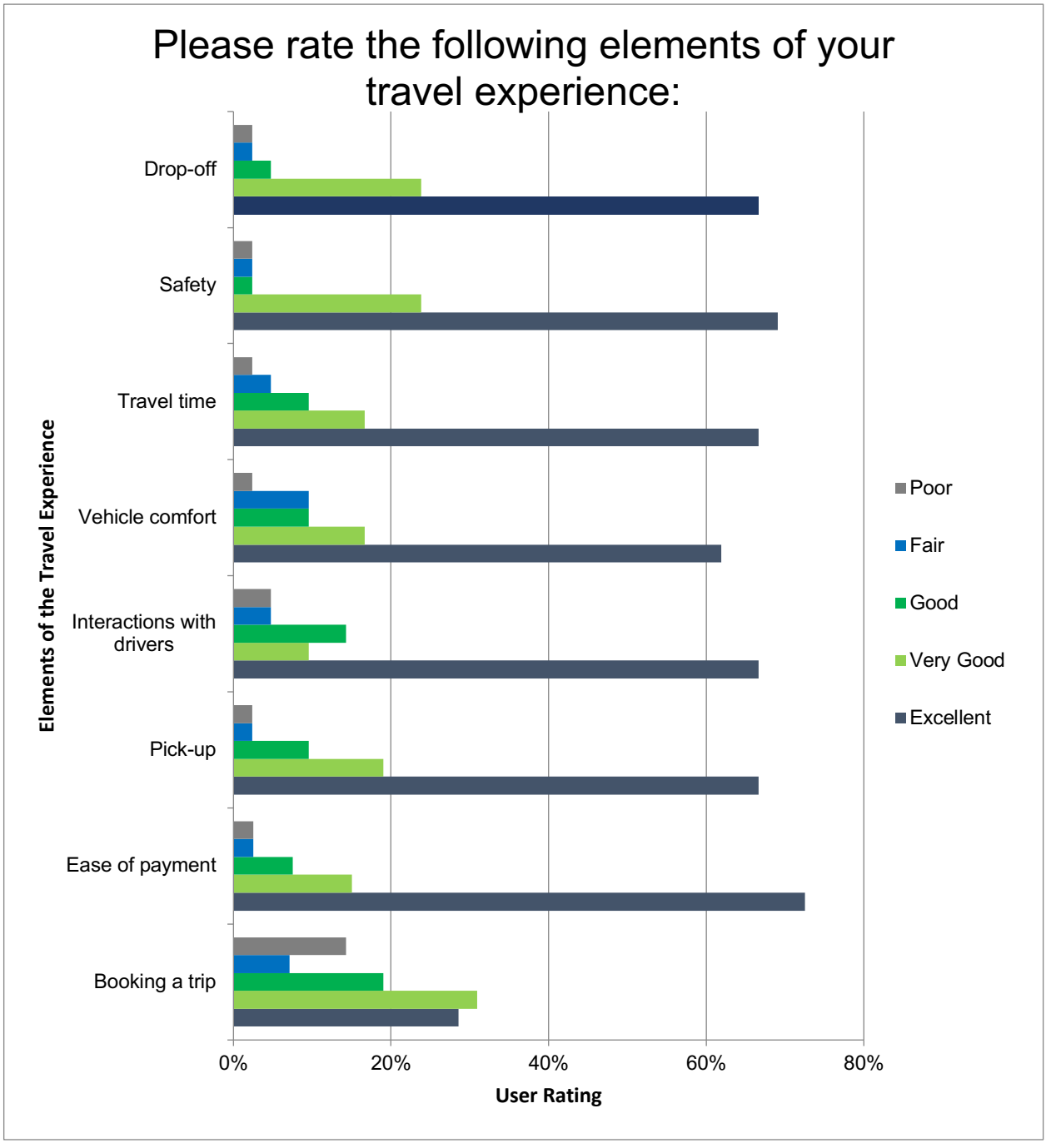
Question 9 - If applicable, please select challenges with the app you have experienced:



Fifteen (15) respondents expressed that they have not had any issues booking a trip on the app. The greatest challenge that surveyed Users have faced with the app is that they have encountered issues with the app registering a pick-up/drop-off location as valid even when it is within the service areas. Fifteen (15) respondents provided additional information about other challenges they have faced including:

- The inability to book a ride the night before
- A lack of drivers that prevents trips from being fulfilled
- Unable to contact the driver if plans change such as a delayed train

Question 10 - Please rate the following elements of your travel experience:
Users were asked to rate eight elements of their travel experience using a scale of "Poor" to "Excellent" to qualify their experience.

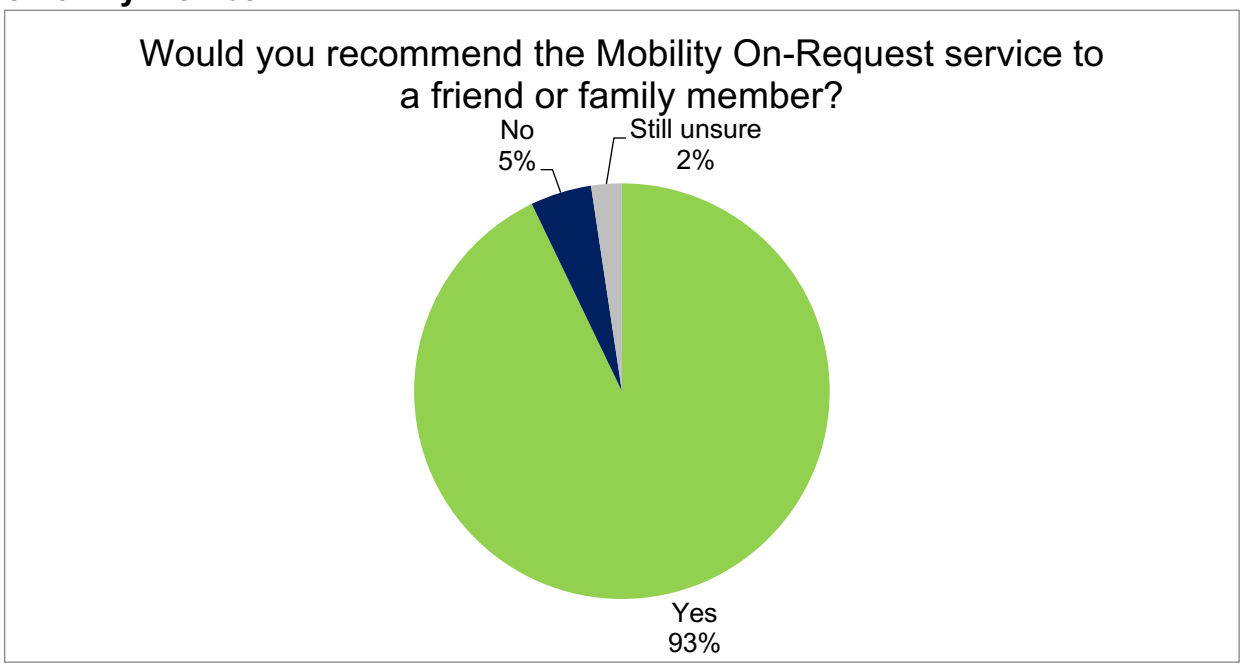


Most respondents rated elements of their travel experience as excellent or very good. The exception was "Booking a Trip" where over 21% of respondents rated this element of the travel experience either "Poor" or "Fair".

As a follow up question, participants were asked how their travel experience could be improved. Twenty-three (23) respondents answered this question. Some improvements suggested by participants include:

- Some respondents recommended increasing the number of vehicles during the morning peak service to accommodate higher perceived demand.
- Respondents suggested starting morning peak service earlier for riders wishing to catch the first train at Maple (6:00am train) and extending service later into the evening particularly later in the week when individuals are more likely to linger around their office after work.
- A few respondents expressed improvements could be made to the efficiency of trips, such as promoting stricter pick-up times, and streamlining the paperwork that drivers must for each trip do so that it occurs at the end of the trip rather than the beginning (where possible).
- The process of scheduling trips could also be improved, suggestions include a platform for communication with the driver, allowing for bookings the night before, and addressing issues related to selecting pick-up/drop-off locations.
- A minor area of feedback highlighted opportunities for vehicle accommodations such as providing bike racks.

Question 11 - Would you recommend the Mobility On-Request service to a friend or family member?



An overwhelming majority of respondents (93%) would recommend the Mobility On-Request service to a family member or friend.

Takeaways

Comparing the performance of the pilot on how well it is meeting the objectives thus far is essential to understanding where challenges exist and what improvements can be made to the remainder of the pilot.

The following table provides a qualitative analysis of the pilot's performance to date as compared to each of the objectives defined at the start of the pilot.

Enable equitable access to transportation, reduce dependence on single-occupant vehicles and support low-carbon mobility options.	
Pilot performance to date	- The pilot has been successful in eliminating the dependency on single-occupancy vehicles for more than half (55%) of the customers who drove and parked at the station prior to the pilot. - The pilot utilizes hybrid vehicles, which support low-carbon mobility options.
Challenges	- Although the pilot has enabled a mode-shift (single occupancy vehicle to microtransit vehicle) for more than half of its customers, most MOR trips only have one passenger.
Possible improvements	- Aim to increase the percentage of trips that are linked.

Provide an economical means for the City to enable first/last mile transportation options for commuters who use Rutherford and Maple GO stations.	
Pilot performance to date	- Due to the Ride to GO program, customers have a free ride to Maple/Rutherford GO when they use MOR. As such, the pilot service provides a very economical option to customers to connect to GO services.
Challenges	- Since the MOR service is essentially free, the City must pay for the entirety of the MOR service. This is currently possible due to the FCM funding.
Possible improvements/Next steps	- If the MOR service to the GO stations were to continue, alternative funding sources may need to be explored.

Test the viability and potential market of providing shared micro-transit service.	
Pilot performance to date	- The sign-up survey results have shown a great interest for the service (569 signed up for the service as of July 29, and 330 participants were qualified).

	- However, due to the COVID-19 pandemic, ridership has been lower than expected. The ridership in the first month was quite low and, while the expansion of service area increased ridership, overall ridership remains low with only 60 unique customers as of July 29.
Challenges	- Despite the increase in ridership since the first month of the service, overall ridership has been lower than expected (average of 10 trips/day compared to the expected 90 trips/day projection at the end of 3 months). - Low ridership is a result of the COVID-19 pandemic and reduced demand for work related commute.
Possible improvements/Next steps	- It is expected (based on survey feedback) that residents will return commuting to work. Monitoring of the service in the next few months will show if the ridership increases as expected. - Paid promotions are in place along with planned station events to target residents going back to school and work.

Determine the best practices for encouraging mode shift away from driving to shared micro-transit.	
Pilot performance to date	- According to the pre-pilot survey, most respondents said they travel 1-2 days a week and most commonly for work, which indicates a shift in travel pattern due to many working from home.
Challenges	- Although most customers appreciate the pilot because it allowed them to leave later and be more independent, this did not result in an increased frequency in trips or purpose of trip. - A handful of customers have indicated wanting to travel outside of service hours and technical difficulties as reasons for not using the pilot service. - A number of customers have indicated challenges with using the MOR app.
Possible improvements/Next steps	- More questions around travel behaviour must be asked in future surveys to fully understand what can encourage Vaughan residents to travel more frequently using the pilot service. Questions to consider include time/day of desired travel, impact of sharing a ride on decision to travel with other passengers in the vehicle, non work reasons for travel (that require GO train connection).

Estimate potential economic benefits to both users and to wider society.	
Pilot performance to date	- Due to the free fare to use the pilot service, customers benefit from the money saved in gas and parking.

Challenges	- The current data does not enable the project team to accurately calculate economic benefit. This is due to the lack of information on personal vehicles, money spent on gas/parking or other modes of travel if the customer were to stop using the pilot service.
Possible improvements/Next steps	- More questions around customers' alternative modes and travel expenses must be asked in future surveys. This will help to evaluate the economic benefits due to change in travel behaviour due to the participation in the pilot.

Next Steps

Feedback from this survey will be used in combination with ridership data gathered from the Mobility On-Request app to make changes to the pilot service to improve user experience or expand pilot service in areas identified by respondents.

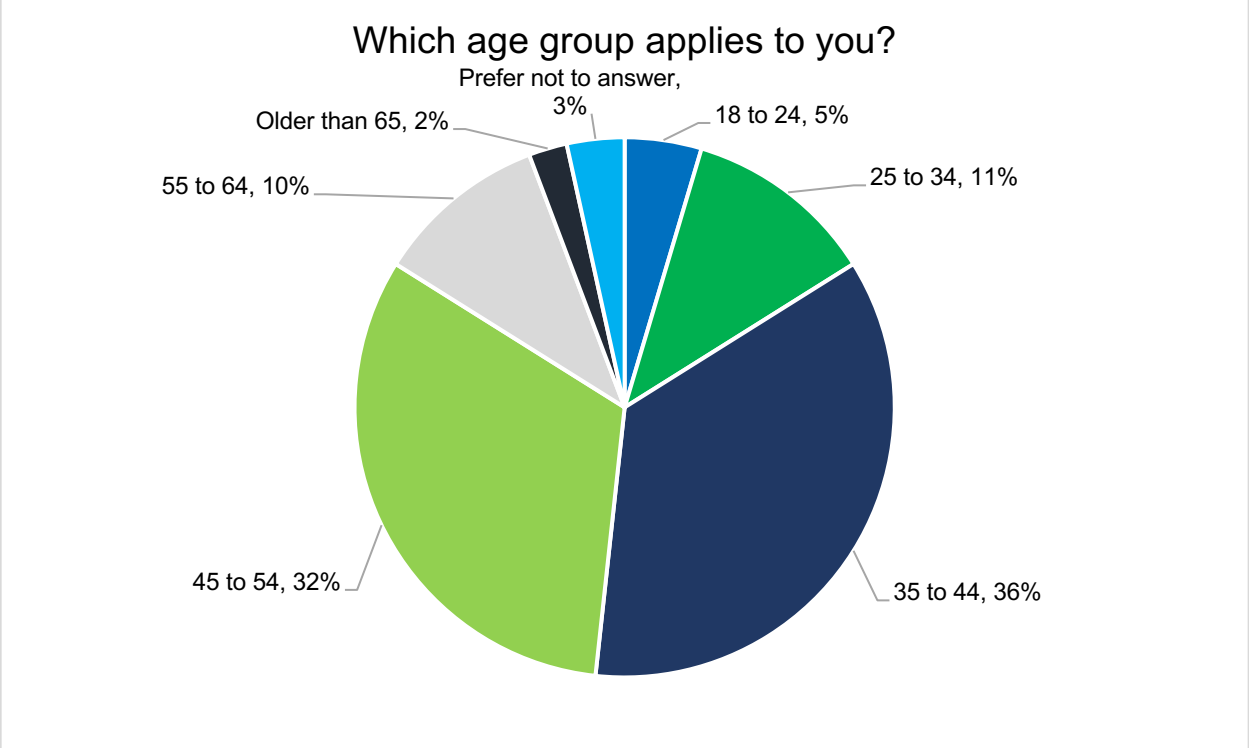
Based on the feedback received, the project team will consider the feasibility of expanding the service hours in the fall. In order to meet pilot objectives, it is recommended that the service link a higher proportion of the trips.

Finally, to accurately understand changes in travel behaviour future surveys should include questions that seek to understand how the pilot has impacted travel patterns of its customers. Future surveys will be shared with Approved Users to review changes to the pilot service as they are implemented.

Appendix A - Demographic Questions

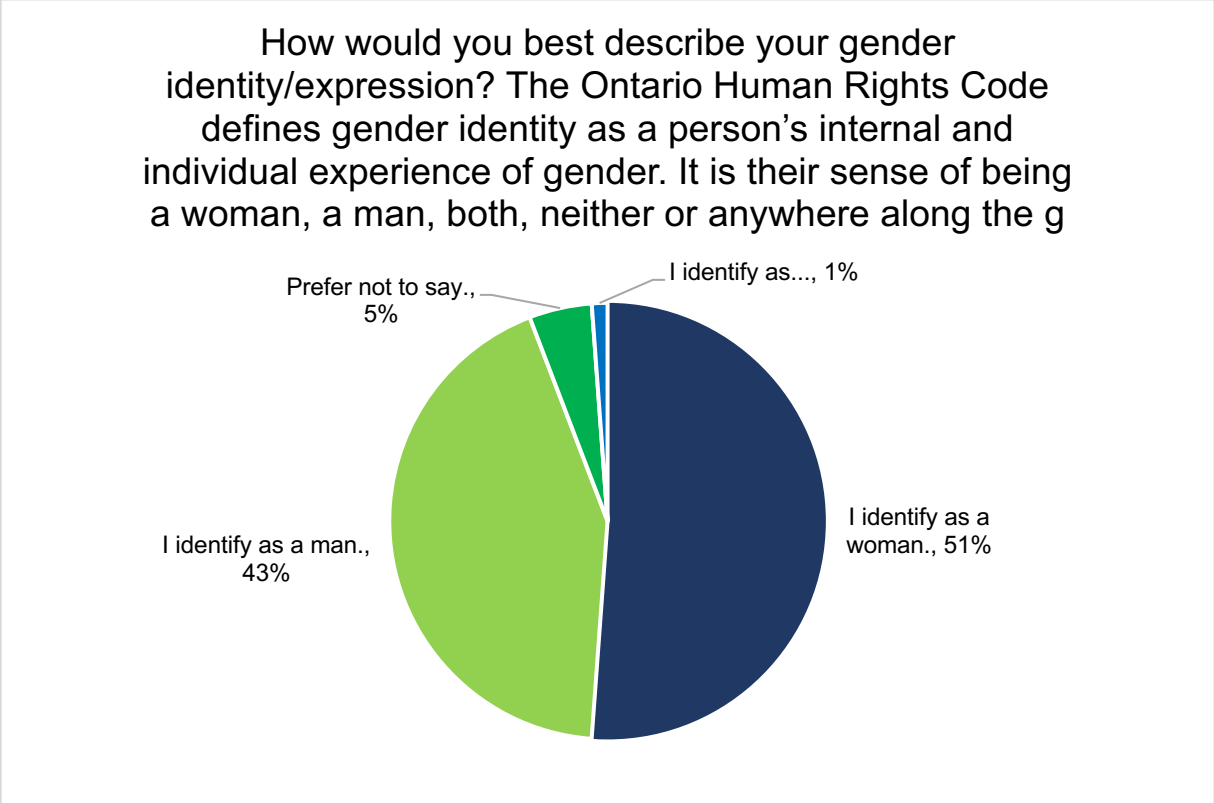
The following demographic questions were asked to better understand who is using the Rutherford-Maple GO Mobility On-Request pilot service. These demographic questions align with questions asked during Metrolinx's 2019 2019 GO Rail Origin Destination Survey.

Which age group applies to you?



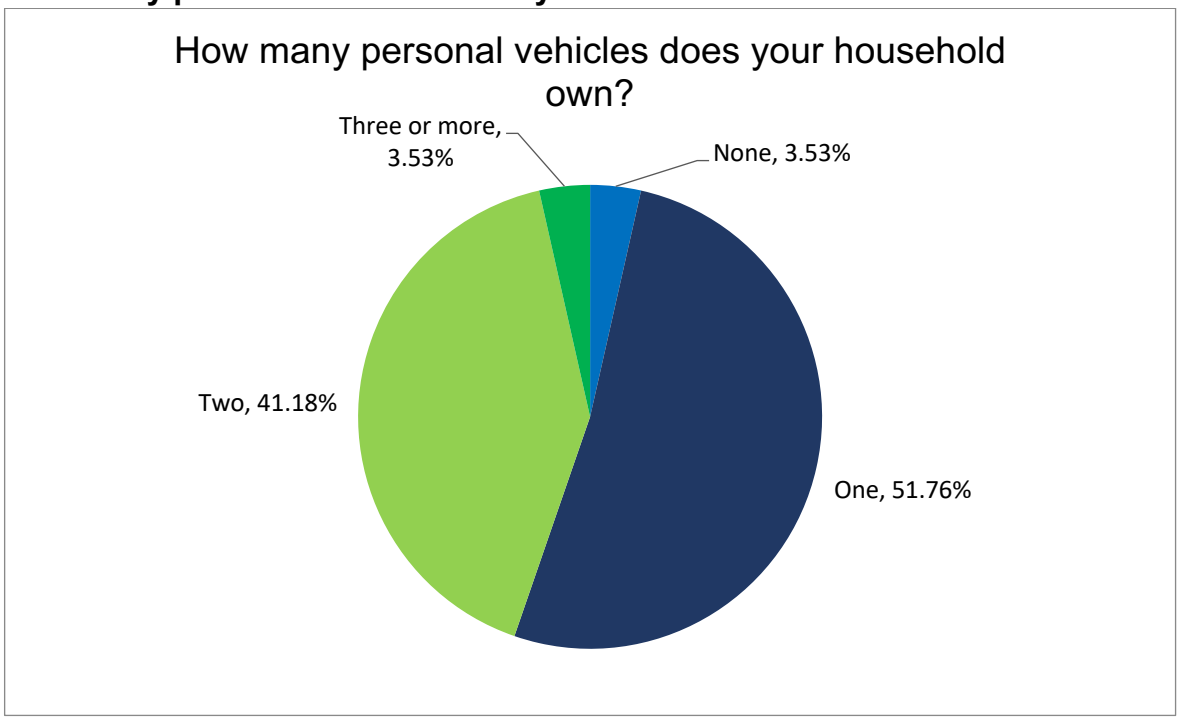
Nearly 70% of respondents are between the ages of 35-54 with the remaining respondents identifying themselves as older or younger. No respondent was younger than 18 years of age.

How would you best describe your gender identity/expression? The Ontario Human Rights Code defines gender identity as a person's internal and individual experience of gender. It is their sense of being a woman, a man, both, neither or anywhere along the gender spectrum.



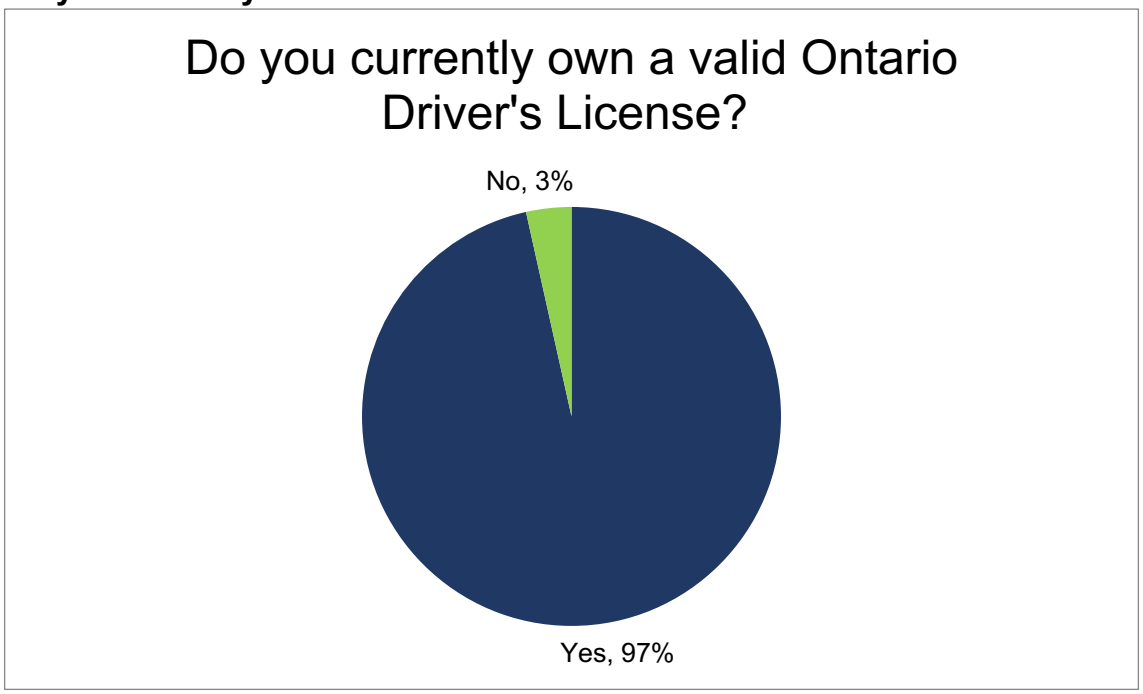
51% of respondents identified as a woman while 43% identified as a man, while approximately 5% of respondents preferred not to answer.

How many personal vehicles does your household own?



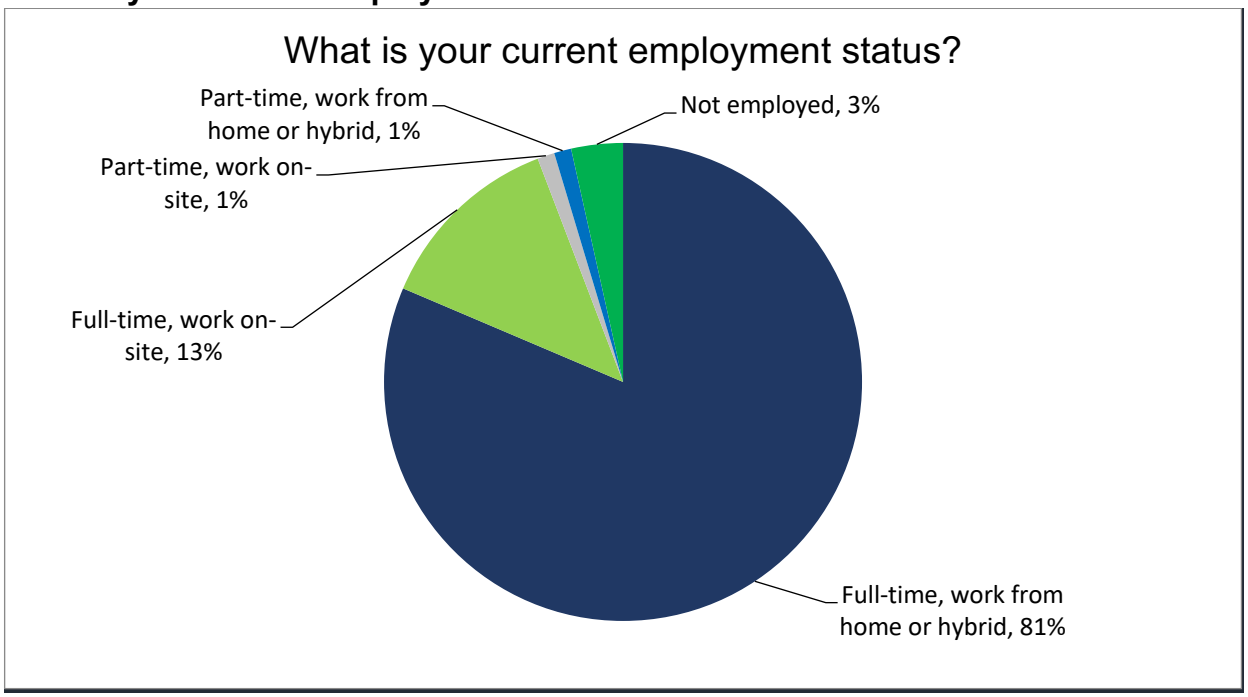
50% of respondents have 1 personal vehicle in their household, while 40% have 2 vehicles.

Do you currently own a valid Ontario Driver's License?



The overwhelming majority of respondents own a valid driver's licence.

What is your current employment status?



Over 80% of respondents work full time on a hybrid basis, while over 10% work full time on site.

Rutherford and Maple GO Mobility On-Request Pilot

User Experience Survey #2 Summary

April 6, 2023

Prepared by

LURA
LISTEN · UNDERSTAND · RELATE · ADVANCE

For

VAUGHAN

Rutherford and Maple GO Mobility On-Request Pilot Project
User Experience Survey #2 Summary

Executive Summary

About This Survey

The City of Vaughan in partnership with York Region Transit and Metrolinx launched its Rutherford and Maple GO Mobility On-Request pilot service on May 2nd, 2022, as part of a year-long initiative to test how a Mobility On-Request service could reduce demand for parking at these GO stations. Beyond this primary goal, the pilot is also interested in working towards the goals of reducing greenhouse gas emissions and vehicle traffic. Since July 2022, The pilot begun pooling trips, a process of connecting different riders at nearby pickup and drop-off locations to lower the environmental impact of the pilot.

The following summary documents feedback received from 98 individuals who signed up and were approved to participate in the pilot. This includes both individuals that have used the pilot service since May 2nd, 2022, and individuals who have not used the pilot service yet.

Conducted just over eight months after the start of the pilot, the survey asked participants about their travel behaviour, and their experience of booking and using the Mobility On-Request service in general and since the service begun pooling trips. Input received from survey respondents will help the pilot project team better understand the alignment between travel patterns and the service offered by the pilot.

Key Findings

Results from the survey revealed several key insights:

- **Eighty-five percent (85%) of Surveyed Users indicated that the Mobility On-Request pilot service is their preferred method for travelling to Rutherford or Maple GO station**, however ridership continues to remain low with only 23% of Approved Participants having taken at least one trip. As of February 12, 2023 the service has averaged 75 trips per operational week.
- GO Train travelers are continuing to travel for similar reasons compared to before the pandemic (before March 2020). **Travelling for work remains the top reason for respondents to take GO transit**, however the frequency of taking GO transit has dropped. Whereas over 50% of respondents travelled between their home and the GO station three times a week or more before the pandemic, **since September 2022, over 60% of respondents travelled between their home and the GO station twice a week or less**, suggesting a change in travel behaviour with implications on decreased number of potential riders who might use the Mobility On-Request service. These observations align with Metrolinx data indicating that ridership has fallen significantly compared to pre-pandemic levels. The distribution of reasons for travelling on GO transit recorded in Survey 2 was similar to results from Survey 1.
- Respondents identified that return to in-person/hybrid work arrangements have generated additional interest in the pilot. This has coincided with a 42% increase in Approved Participants since September 1, 2022.

- **Users identified that they are willing to accept a ride that takes 5 minutes longer to facilitate pooled trips** to help achieve a greater environmental impact, as long as they are still on-time for their intended train.
- Users identified that **gaining greater flexibility**, **independence in travel options**, and the **benefit of not needing to park their car at the station**, as considerations that factored highly into the reason they chose to use the pilot.
- Respondents recommended **improvements to the booking system** to ensure that supply of vehicles matches demand, **provide greater clarity around pick-up locations**, and **ensure passengers are only pooled with other passengers travelling to/from similar locations**.
- Respondents indicated that factors that contribute to their decision not to use the pilot service include t**he service not operating or vehicles being fully booked during the hours of the day where they need it**, or because of **negative experiences with the app due to glitches and difficulty navigating the app**. These findings were consistent with feedback received in Survey #1 and will be incorporated into the post-pilot report.

Additional details from the survey findings are documented in the following pages in the “What We Heard” section of this summary.

Rutherford and Maple GO Mobility On-Request Pilot Project
User Experience Survey #2 Summary

Project Background

The City of Vaughan is partnering with York Region Transit (YRT) and Metrolinx to bring Vaughan residents the Rutherford and Maple GO Mobility On-Request Pilot Project which will help residents get a ride to and from these two GO stations. The Rutherford and Maple GO Mobility On-Request Pilot Project is funded by the Federation of Canadian Municipalities through the Green Municipal Fund.

Participants of the pilot use the Mobility On-Request app to book a free (when connecting to GO train service using a PRESTO card) YRT-operated vehicle to pick them up from their home and get dropped off at their desired GO station. The same service will be provided in the evening to return home from the GO station.

The pilot service began on May 2, 2022, and will run until May 2, 2023. To-date 529 people have qualified to participate in the pilot, and 121 unique users have made 3,089 trips (from May 2nd, 2022 to February 12th, 2023).

Survey Information

Definitions

This summary uses the following definitions when qualifying the participant groups being discussed:

- *Approved Participant:* Is an individual who lives within the Mobility On-Request service area, has signed up for, consented to and been approved to participate in the pilot program.
- *User:* Is an Approved Participant who has signed up to participate in the Mobility On-Request Pilot program and has made at least one trip since the start of the pilot program.
- *Non-User:* Is an Approved Participant who has signed up to participate in the Mobility On-Request Pilot program but has not made a trip so far.
- *Unknown:* Is an Approved Participant who has signed up to participate in the Mobility-On-Request Pilot program but did not confirm through the survey if they have made a trip.

Survey Communication

Approved Participants received an invitation via email to participate in this survey on February 6, 2023. Instructions specified the purpose of the survey to better understand what is working well with the service, how it could be improved and participant travel behaviour. The email specified that the survey would close on February 29, 2023.

Approved Participants were reminded to complete the survey on February 15th, 2023, via email.

Survey Details

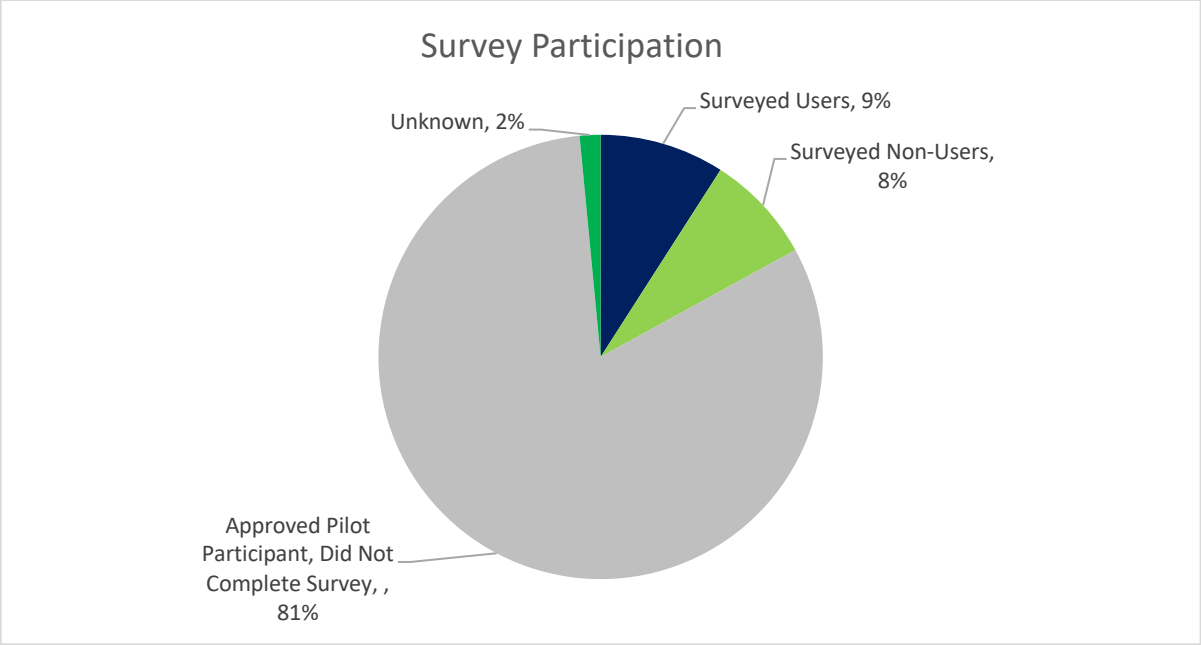
The survey was available from February 6, 2023 to February 21, 2023 and was conducted eight months after the start of the pilot service. The survey consisted of five sections:

- Section 1: Introduction
- Section 2: Travel Behaviour
- Section 3: Pooled Trips
- Section 4: Travel Experience
- Section 5: User Demographics (See Appendix A for details)

All Approved Participants responded to questions in Section 1, 2 and 5. Participants who indicated they have used the pilot service were asked additional questions in Section 3, and 4. In Section 5, respondents were given the option to provide demographic information about themselves and to enter a into a contest for one of three gift card prizes as a thank you for completing the survey.

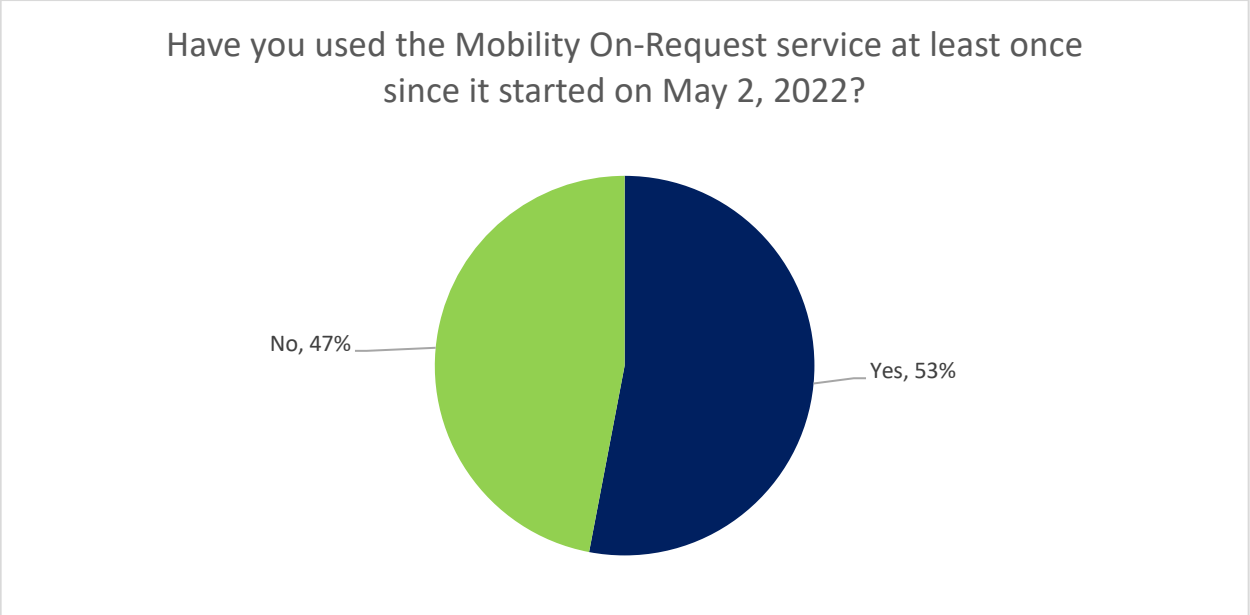
Response Rate

Survey Participation



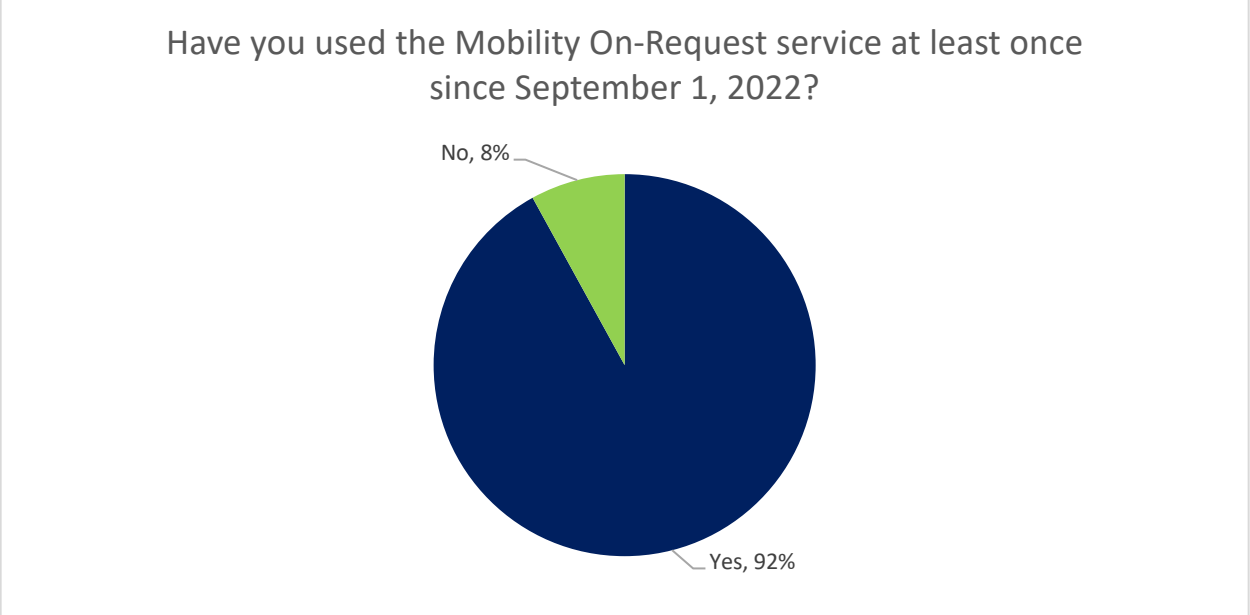
In total, 98 Approved Participants completed the survey – representing a participation rate of 19%. Of these respondents, 48 were Users and 42 were Non-Users, while eight were Unknown.

Question 12 – Have you used the Mobility On-Request service at least once since it started on May 2, 2022?



The majority of respondents (53%) indicated that they have used the Mobility On-Request service at least once since it started on May 2, 2022. Ninety (90) respondents completed this question.

Question 13 – Have you used the Mobility On-Request service at least once since September 1, 2022?

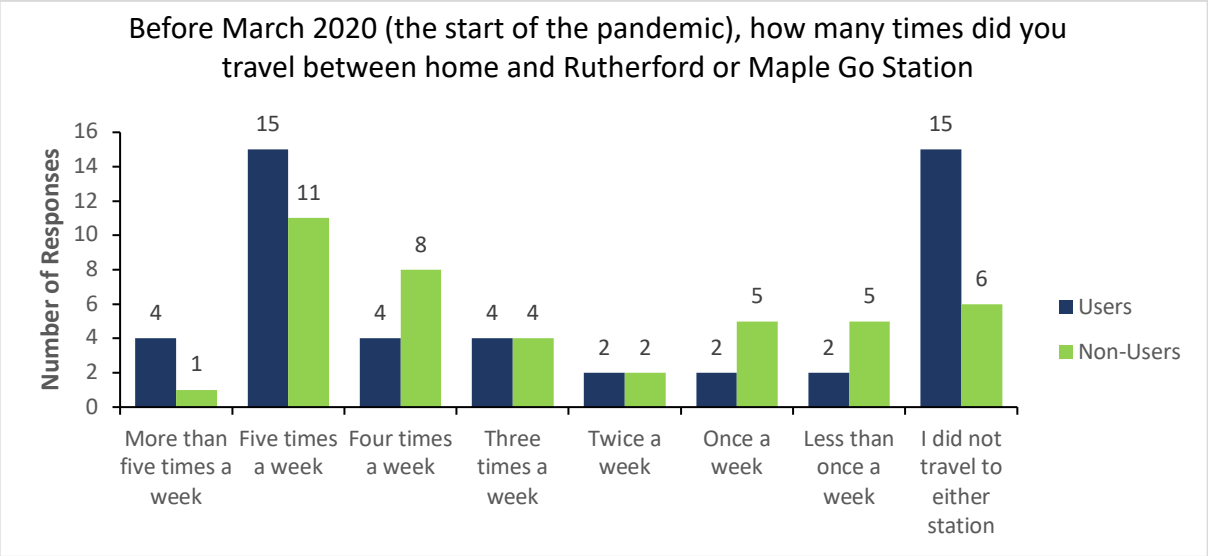


Among the User participants, 92% of respondents indicated that they have used the Mobility On-Request service at least once since September 1, 2022. Forty-nine (49) respondents completed this question.

What We Heard

Section 1 – Introduction

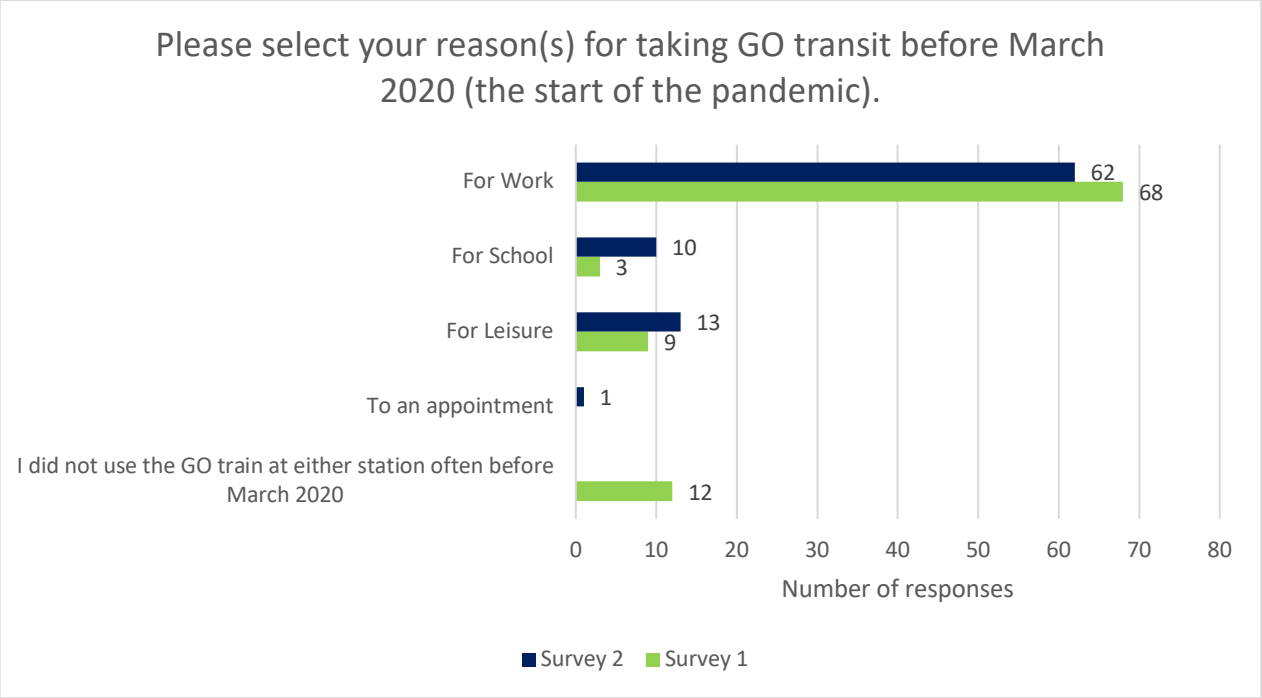
Question 1 - First, we'd like to ask about your travel behaviour before March 2020 (the start of the pandemic). How many times a week on average did you travel between your home and Rutherford or Maple GO station?



Among both the User and Non-User participants, 29% of respondents indicated that they travelled five times a week between their home and Rutherford or Maple GO station before the pandemic, while 23% responded that they did not travel to either station before the pandemic.

In total, ninety-eight (98) participants completed this question, of which forty-eight (48) were Users, forty-two (42) were Non-Users, and eight (8) were Unknown.

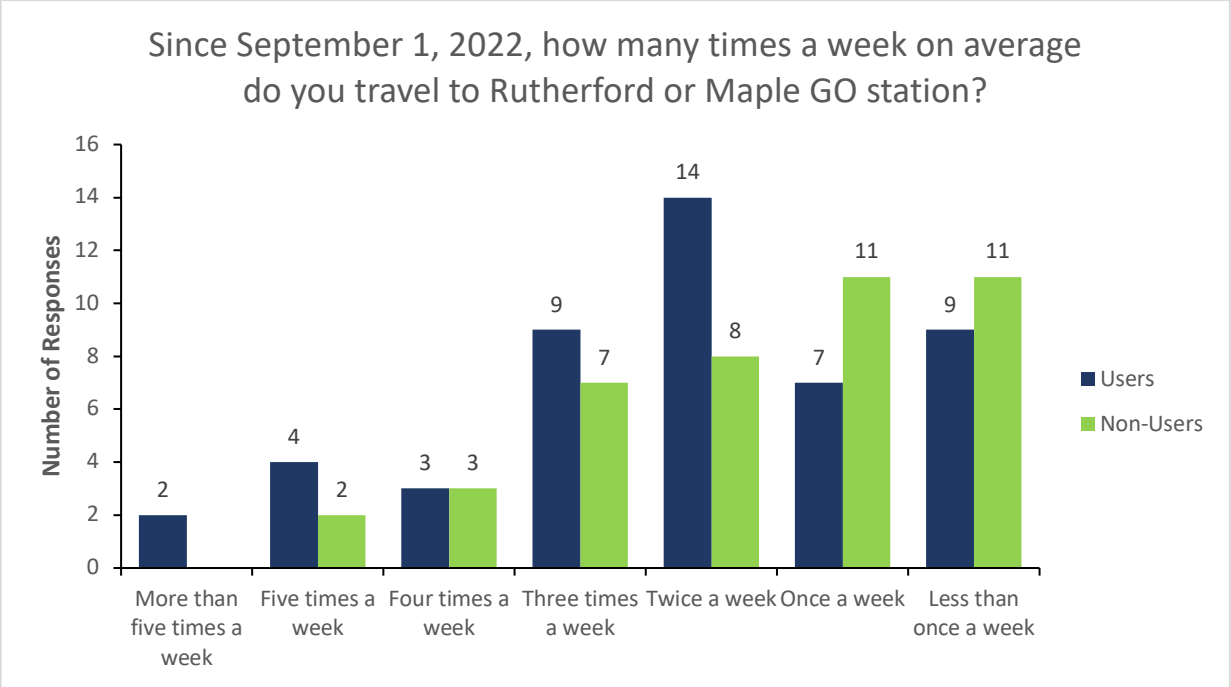
Question 2 – Please select your reason(s) for taking GO transit before March 2020 (the start of the pandemic).



Results from Survey 2 reveal that before March 2020, the majority of respondents (84%) took GO transit to travel to work, while 18% took GO transit to travel to an event or leisure destination. Comparing results from Survey #1 (conducted in July 2022) and Survey #2 (February 2023), results align with Metrolinx data indicating that **the primary use of Rutherford and Maple GO stations is for travellers commuting for work with some using it to travel for school, leisure, and appointments.**

Seventy-four (74) respondents completed this question in Survey 2, while ninety-one (91) respondents completed this question in Survey #1.

Question 3 – Since September 1, 2022, how many times a week on average do you travel to Rutherford or Maple GO station?



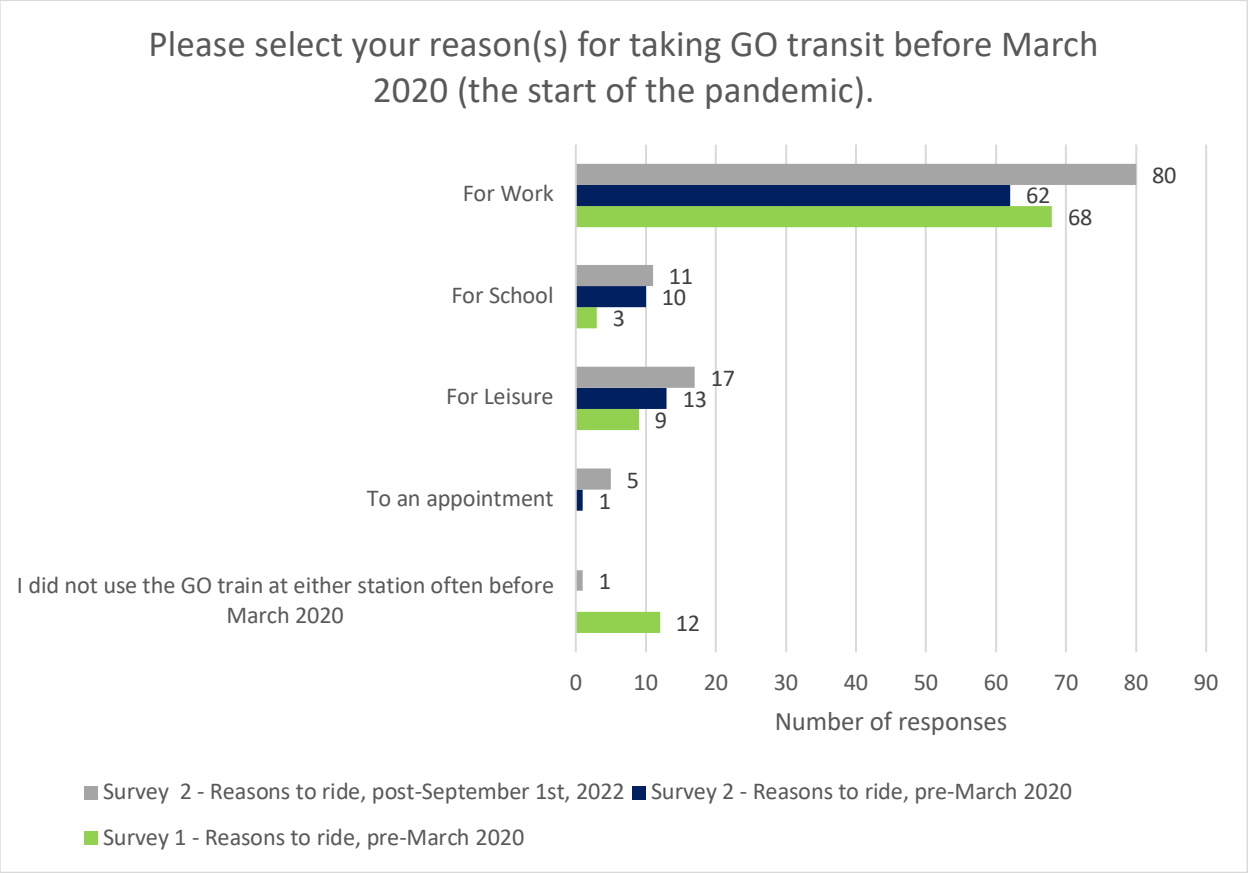
Respondents were asked about their travel behaviour since September 1, 2022 to understand how travel patterns may have shifted with many companies implementing return to office requirements for their employees and the return to in-person learning at schools. In September 2022, the project team completed a back to work/school campaign to raise awareness about the pilot resulting in an increase in pilot sign-ups.

Among both the User and Non-User participants, 24% of respondents indicated that they travelled twice a week between their home and Rutherford or Maple GO station before the pandemic, while 22% responded that they traveled less than once a week to Rutherford or Maple GO station before the pandemic.

Comparing Users and Non-Users, Users are travelling to Rutherford and Maple slightly more than Non-Users (37.5% of Users travel three times or more per week compared to 28.6% of Non-Users). Non-Users continue to travel to the GO stations despite having signed up for the Mobility On-Request service.

In total, ninety-seven (97) respondents completed this question, of which forty-eight (48) were Users, forty-two (42) were Non-Users, and seven (7) were Unknown.

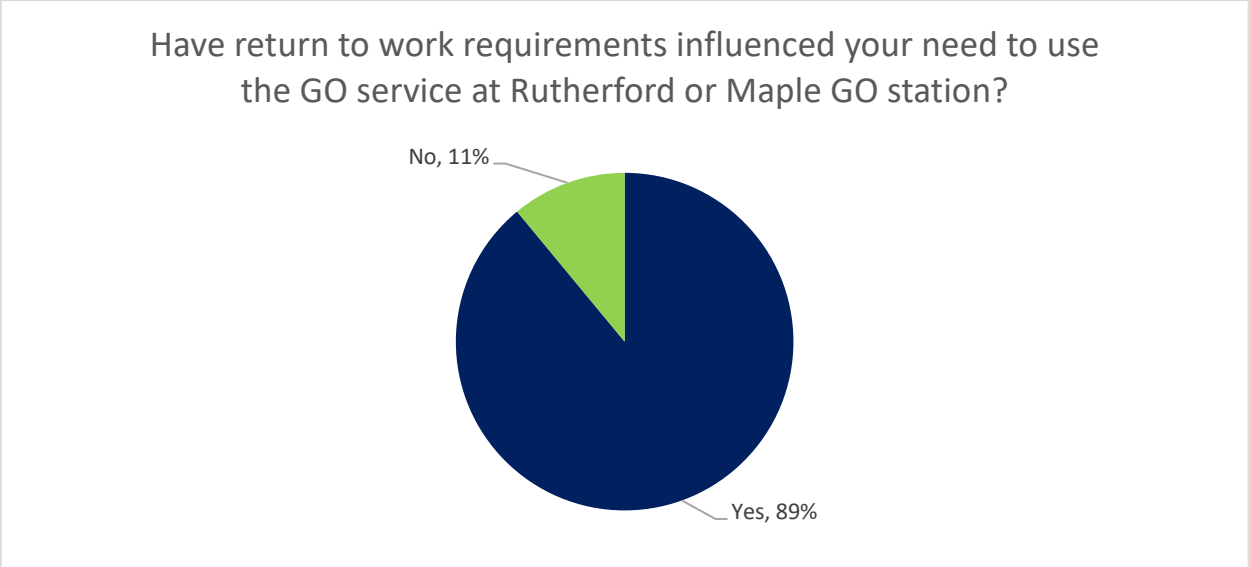
Question 4 – Please select your reason(s) for taking GO transit since September 1, 2022



Results from this question reveal that the reasons from taking GO transit have remained similar to before March 2020, with the primary reason being for work. **More respondents indicated they use GO transit for school, leisure, and appointment purposes compared to before March 2020.**

Ninety-three (93) respondents completed this question.

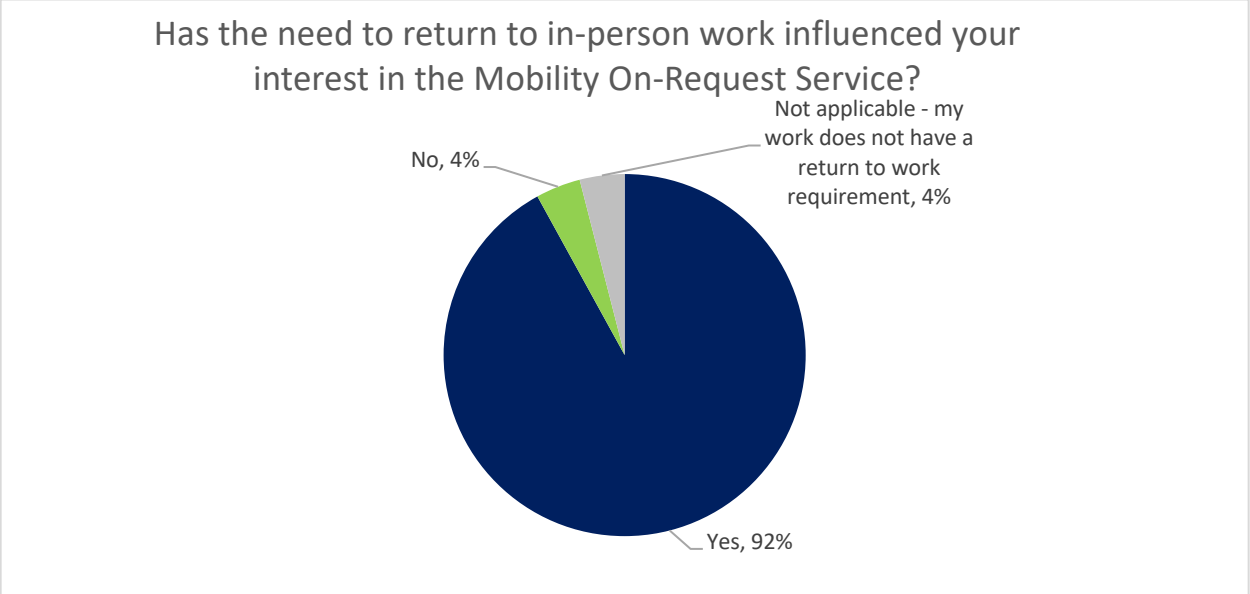
Question 5 – Have return to work requirements influenced your need to use the GO service at Rutherford or Maple GO station?



The majority of respondents (89%) indicated that return to work requirements have influenced their need to use the GO service at Rutherford or Maple GO station.

Eighty (80) respondents completed this question.

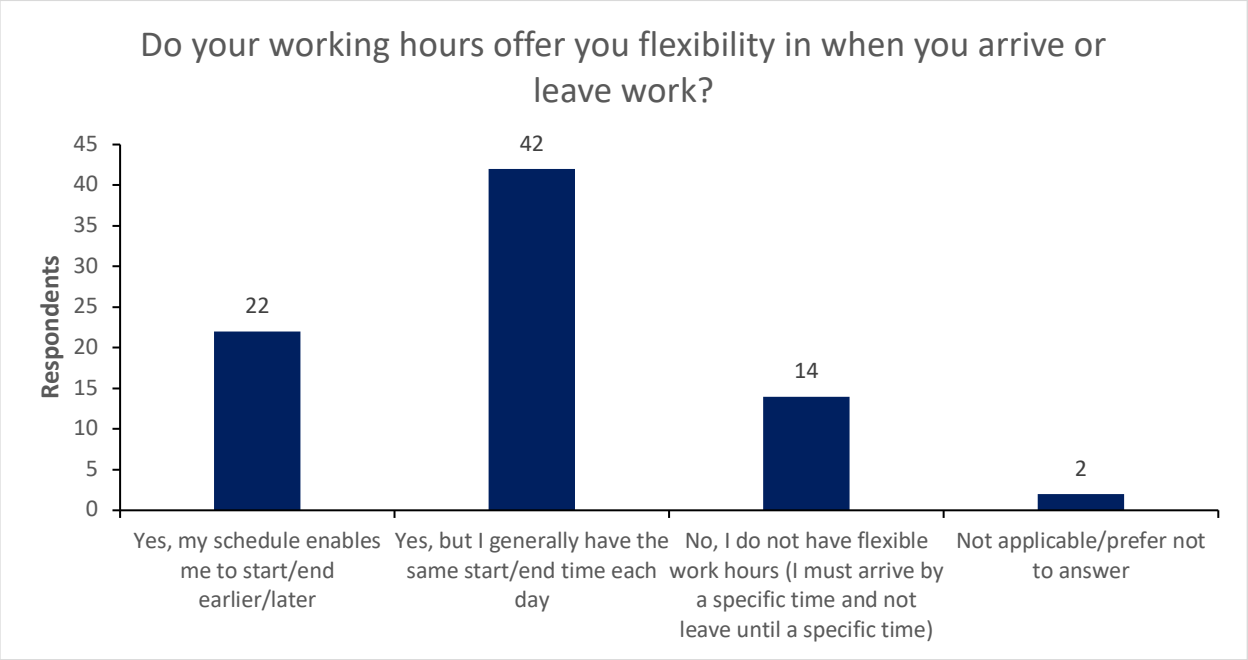
Question 6 – Has the need to return to in-person work influenced your interest in the Mobility On-Request Service?



The majority of respondents (92%) indicated that the need to return to in-person work has influenced their interest in the Mobility On-Request Service.

Eighty (80) respondents completed this question.

Question 7 – Do your working hours offer you flexibility in when you arrive or leave work?

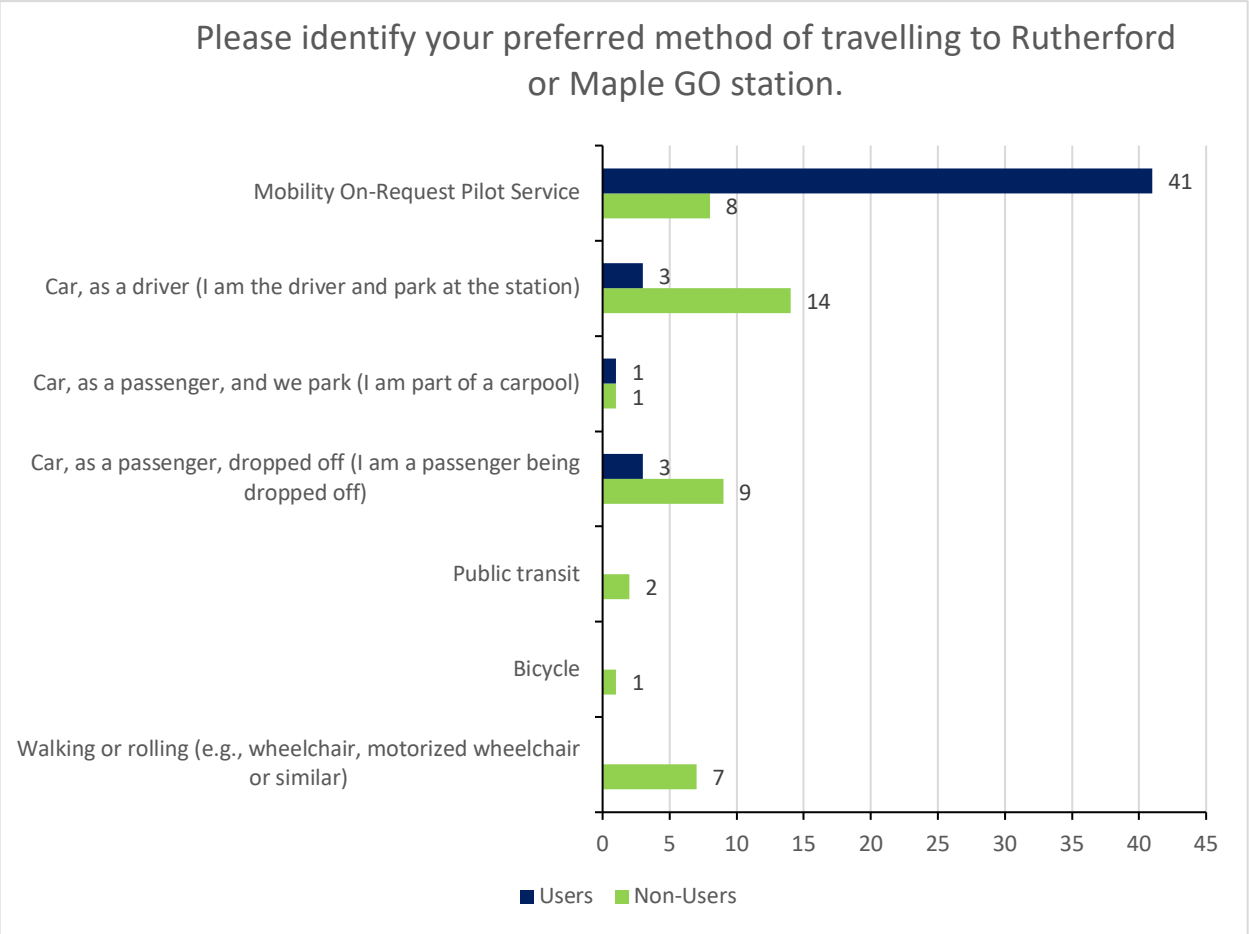


The majority of respondents (80%) indicated that their working hours offer them some degree of flexibility in when they arrive or leave work.

Eighty (80) respondents completed this question.

Section 2 – Travel Behaviour

Question 8 – Please identify your preferred method for travelling to Rutherford or Maple GO station.

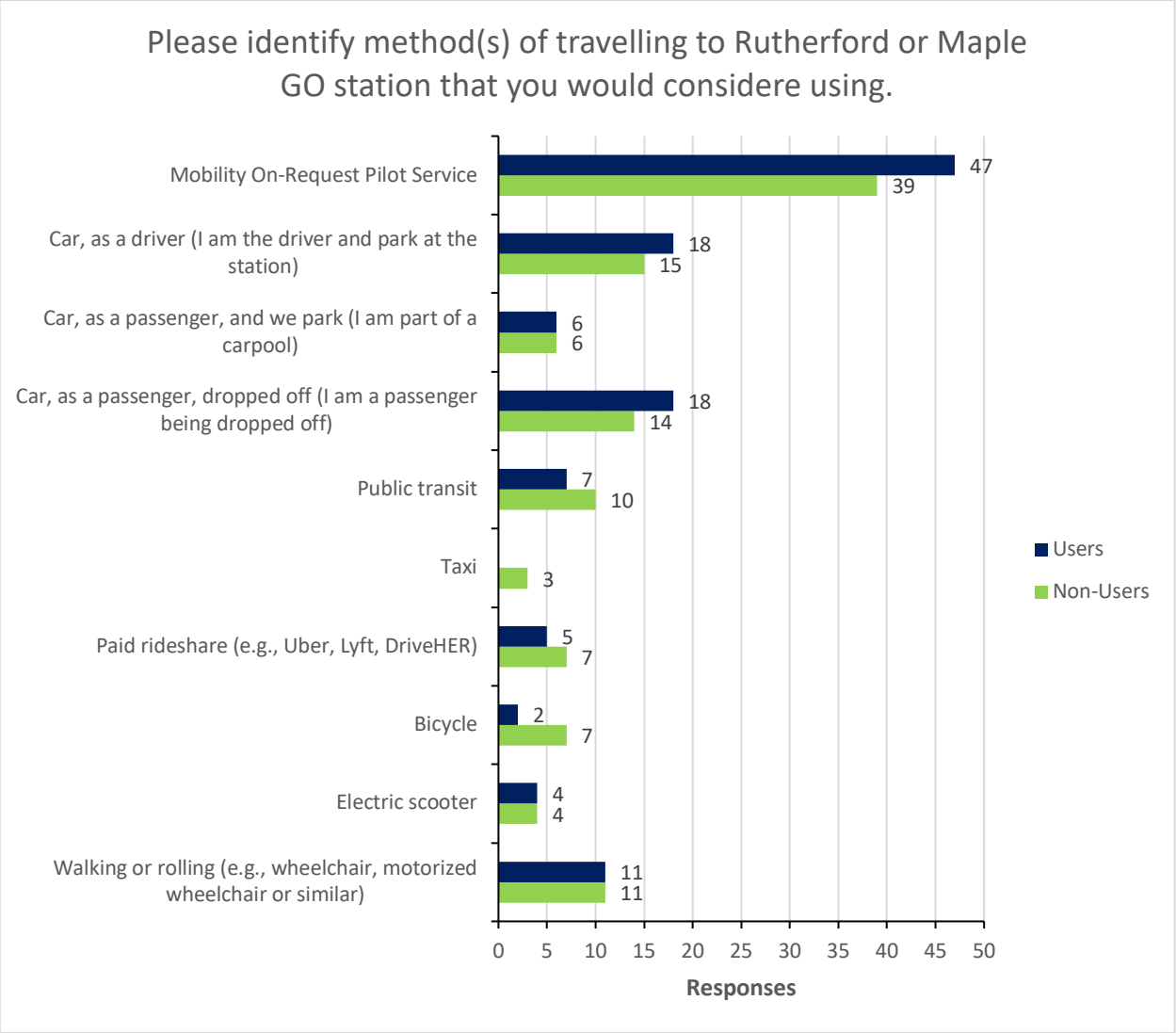


Ninety (90) respondents completed this question, of which forty-eight (48) were Users and forty-two (42) were Non-Users.

An overwhelming majority of Users (85%) selected the Mobility On-Request Pilot Service as their preferred method of travelling to Rutherford or Maple GO station. The top method for Non-Users was travelling by car as a driver (33%) - eight (8) Non-Users identified they preferred this method of travel but have not used it yet. No respondents indicated that taxi, paid rideshare, or electric scooter is their preferred method of travelling to Rutherford or Maple GO station.

Almost a quarter of the Non-Users indicated they preferred to travel to Rutherford or Maple GO station by public transit or active transportation (bicycle, walking, or rolling).

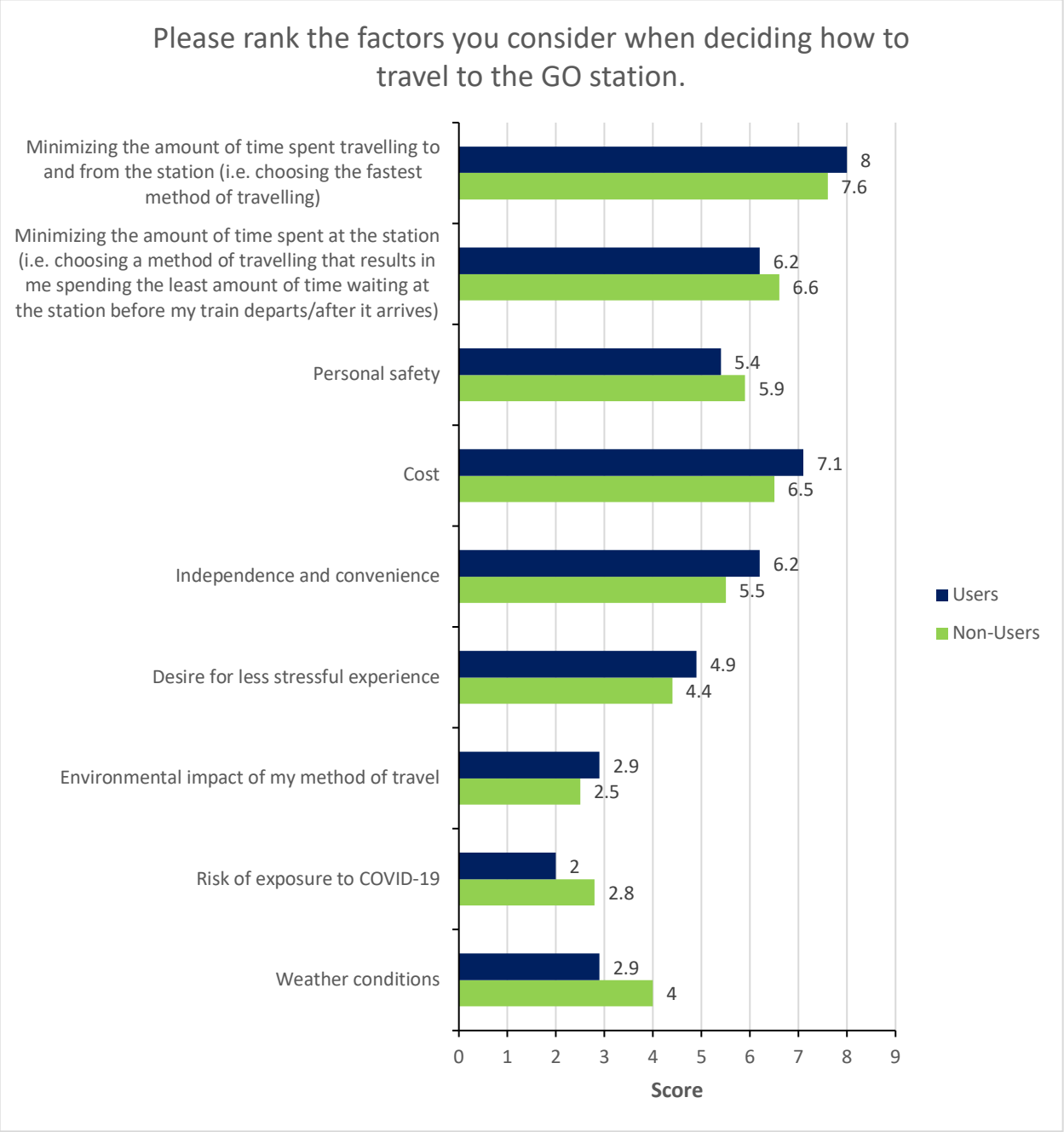
Question 9 – Please identify method(s) of travelling to Rutherford or Maple GO station that you would consider using.



Almost all respondents (96%) including indicated that they would consider using the Mobility On-Request pilot service, while other top selections include 'Car, as a driver' (37%) and 'Car, as a passenger being dropped off' (36%). Of all survey respondents, 96% indicated their household owns 1-2 vehicles, and 58% of respondents have regular access to a vehicle.

Ninety (90) respondents completed this question, of which forty-eight (48) were Users and forty-two (42) were Non-Users.

Question 10 – Please rank the factors you consider when deciding how you travel to the GO station. Rank all considerations you make, where 1 is the most influential consideration that impacts your travel decision-making. Options may be left blank if they do not apply to you.

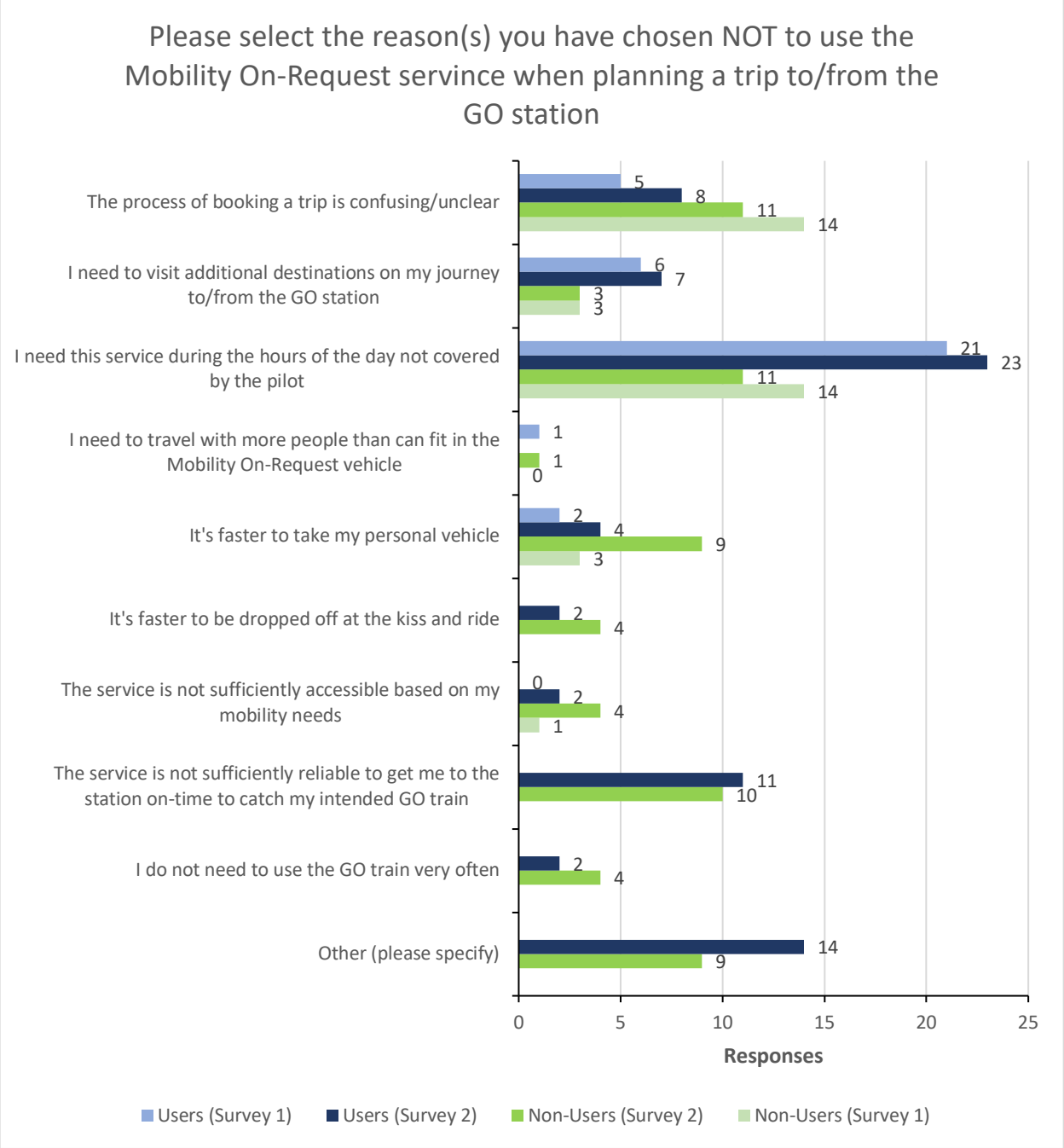


Factors were scored based on the ranking of respondents. Both Users and Non-Users indicated that minimizing time spent travelling to, or at the station are the most influential factors that impact travel decision-making, followed by cost and independence/convenience. Most responses were within 0.5 points of each other except 'Risk of Exposure to COVID-19" and 'Weather Conditions' that were ranked

higher by Non-Users than Users, however the overall classification of these factors placed them in the bottom third of factors influencing their decision-making.

Eighty-six (86) respondents completed this question, of which forty-five (45) were Users and forty-one (41) were Non-Users.

Question 11 – Please select the reason(s) you have chosen NOT to use the Mobility On-Request service when planning a trip to/from the GO station



Users indicated their top two reasons for choosing not to use the Mobility On-Request service is that it is unavailable during hours of the day they need to travel and the service is not sufficiently reliable to catch their intended GO train. Non-Users also identified the unavailability of the service during hours of the day they need to travel as a reason not to use it, followed by confusion/lack of clarity on how to book a trip.

Participants also noted the following 'Other' reasons:

- Pick-up locations being too far away from the station
- The app does not work properly, routinely glitches
- Inconsistency between drivers and app about pick-up location
- Address does not qualify to participate
- No vehicles available whenever attempting to use service
- Concerns for risk of exposure to COVID-19
- It's faster to use active transportation or public transit

These responses are consistent with feedback from Survey #1 with the need for service at other times outside of the current window of operation remaining the top reason for not using the service. Additional study of potential impact of expanding the availability of the pilot should be considered through further analysis. Confusion about how to book a trip remains a barrier to pilot use among non-users primarily suggesting ongoing improvements to the information package for first time users and app functionality may be required.

Seventy-eight (78) respondents completed this question, of which forty (40) were Users and thirty-eight (38) were Non-Users

Section 3 – Pooled Trips

Pooled trips involve serving up to three customers in one vehicle where the pick-up or destination is the same location. This is done to deliver trips in a more efficient manner and to reduce the vehicle kilometers travelled to decrease greenhouse emission. The service began pooling trips on June 13, 2022 and customers were asked about their experience and feedback on pooled trips.

Question 14 – If you have participated in a pooled trip, please describe what your experience was like. What worked well? What could we improve if anything?

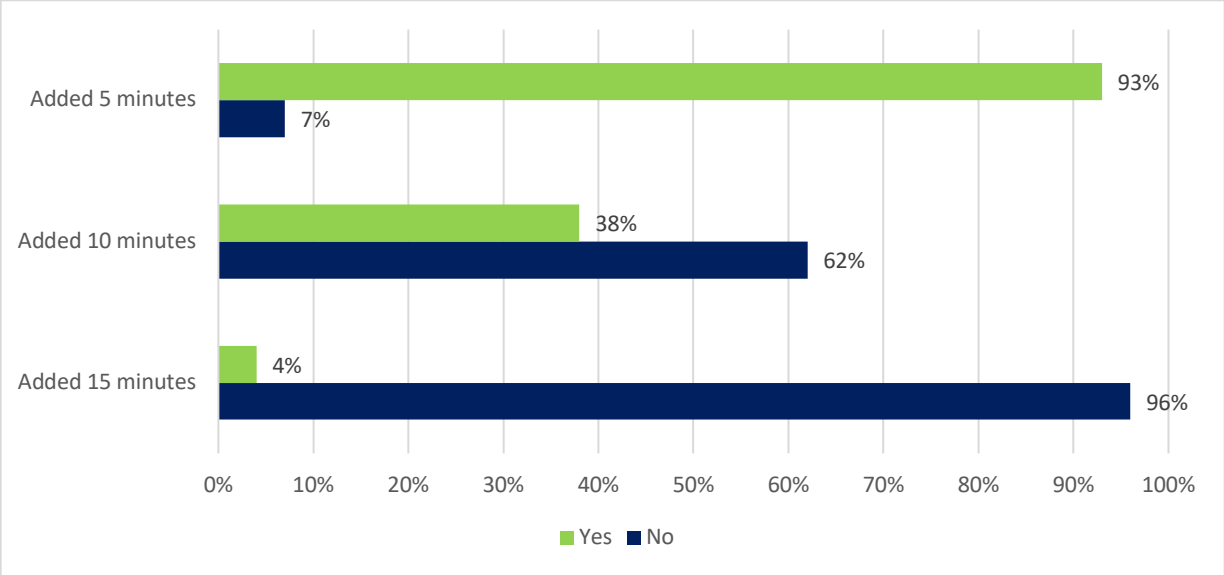
Respondents who had used the pilot service since September 1, 2022 were invited to describe their experience participating in a pooled trip. Twenty-one (21) respondents answered this question. Key themes from the responses are summarized below:

- Respondents who indicated that they had a great experience, expressed appreciation for the friendliness and professionalism demonstrated by the drivers and for the service's success at consistently dropping them at the GO station with a good amount of time before their train arrived.
- Respondents who indicated they had a negative experience, expressed frustration about the unreliability of the service.

  - Several respondents indicated that they had experienced delays or had missed their train due to last minute pick-ups of additional passengers.
  - Several respondents expressed that they had experienced their scheduled pick-up being cancelled because of vehicles becoming full.
  - Several respondents expressed that the route of the pooled trips can be longer than necessary due to routes not being optimized.
- Respondents recommended improving the service by increasing the number of drivers and optimizing routes to reduce travel time.
  - Respondents suggested that the app should factor in the train schedules of all passengers, and that additional passengers should only be picked-up if there is no risk of a passenger missing their train.
  - Respondents noted that there can be improvements in the ordering of drop-offs, so that passengers are not driven past their own destination to drop-off another passenger.

Questions 15-17

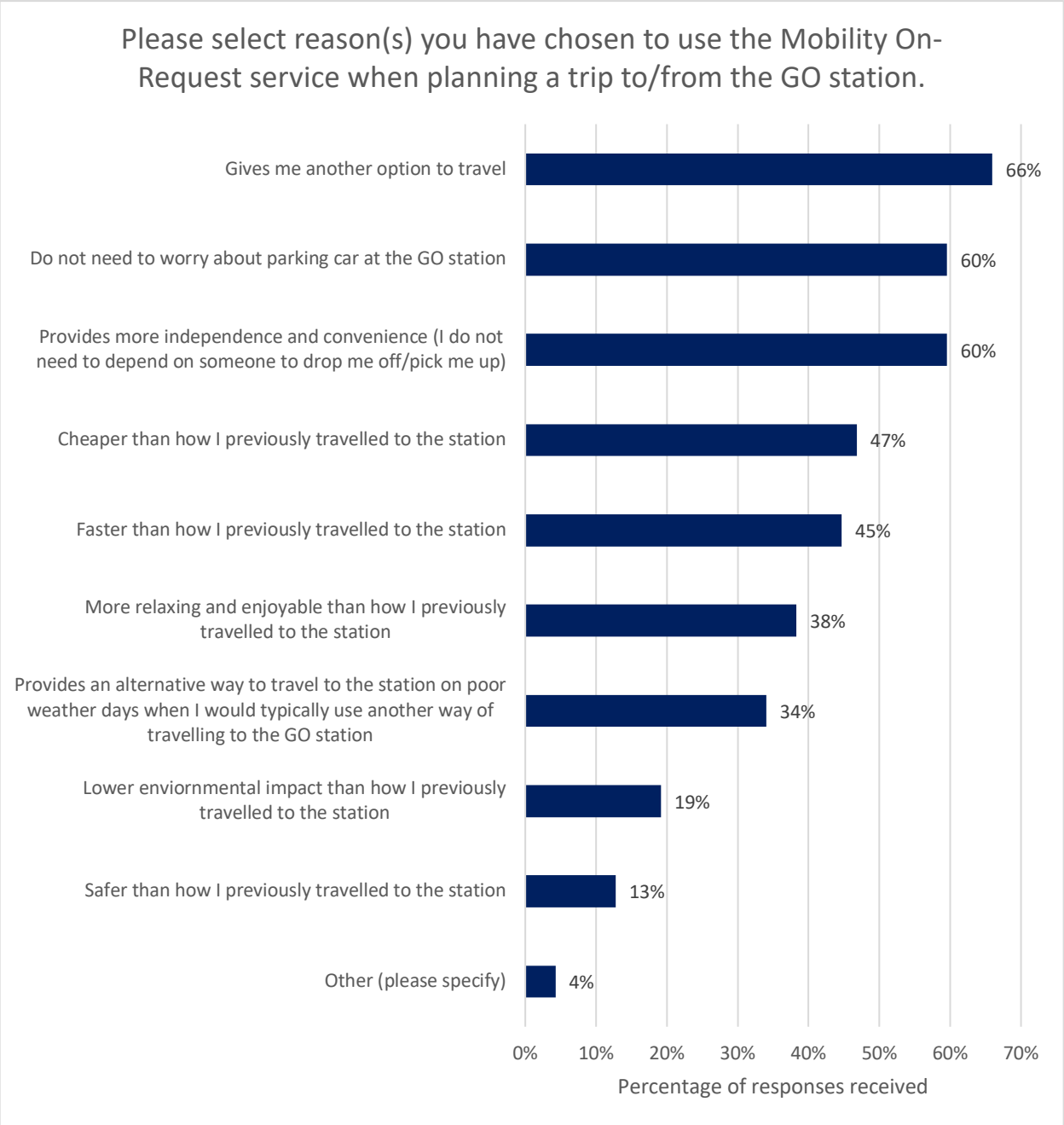
Questions 15, 16, and 17 asked Pooled Trip participants if they would be willing to use the Mobility On-Request service if a pooled trip added 5, 10, or 15 minutes to their trip but still got them to the station on-time for their train.



Among the User participants, the majority of respondents (93%) indicated that they would be willing to use the Mobility On-Request service if a pooled trip added 5 minutes to their trip but still got them to the station in time for their train, however this willingness to use the service drops to 38% if the pooled trip adds 10 minutes to the trip. Only 4% of User participants indicated they would use the Mobility On-Request service if a pooled trip added 15 minutes to their trip.

Travel Experience

Question 18 – Please select reason(s) you have chosen to use the Mobility On-Request service when planning a trip to/from the GO station.



Among the User participants, the top reasons selected for why they have chosen to use the Mobility On-Request service are ‘Gives me another option to travel’ (66%), ‘Provides more independence and convenience’ (60%), and ‘Do not need to worry about parking car at the GO station’ (60%).

Participants also noted the following ‘Other’ reasons:

- Allows them to leave their car for other household members to use while they're at work.
- Reduces complexity of juggling drop-off/pick-up by another member of the household who has other errands/obligations to attend to.

In total, forty-seven (47) respondents completed this question.

Question 19 – Please rate the following elements of your travel experience.
Users were asked to rate eight elements of their travel experience using a scale of "Poor" to "Excellent" to qualify their experience.

Most respondents rated elements of their travel experience as excellent or very good. Elements of the travel experience that received less than 80% excellent or very good included: Booking a Trip (57%), Pick-Up (70%), Travel Time (70%), and vehicle comfort (74%). Booking a Trip performed the poorest with 25% of respondents rating this element of the travel experience either "Poor" or "Fair". These results remain consistent

with the feedback received in Survey #1. In total, forty-seven (47) respondents completed this question.

Question 20 – Based on your response to question 19, please describe (if you would like to) why you chose the selection.

As a follow-up to the Question 19, respondents were invited to share the reasons for their selection. Twenty-three (23) respondents answered this question. Key themes from the responses are summarized below:

- Several participants expressed that the drivers are friendly, are always on time for pick-ups, and provide great customer service.
- Several participants expressed that the booking system needs improvement.
    - It was indicated that the booking system has glitches that result in users not being able to find their desired destination on the map.
    - It was indicated that the user interface is not easy to navigate, in particular when trying to find an available pick-up timeslot.
    - It was suggested that the app should have clearer messaging about when a passenger will not be charged because they are using a Presto card.
    - It was indicated that the app's notifications about the expected time of arrival for vehicles are not accurate.
- Several participants noted that there has been confusion about where the pick-up location will be at GO stations, noting that sometimes drivers have been instructed to wait at a different pick-up spot then what user were instructed.
    - It was recommended that the app provide a way for users and drivers to communicate directly with one another to share updates and provide clarifications.
- Several participants recommended that more vehicles are needed to meet demand for the service, as vehicles are often all booked.
    - It was recommended that the fleet include some larger vehicles, or allow users to use the front seat of vehicles, so that the service is more accessible for users who have difficulty getting into the back seat of vehicles that are low to the ground.

Question 21 – Now that you have reflected on your travel experience, is there anything you would like to share about your travel experience that you feel could be improved?

Respondents were invited to share reflections about how their travel experience using the Mobility On-Request service could be improved. Twenty-four (24) respondents answered this question. Key themes from the responses are summarized below:

- Several participants indicated that they would use the service more if there were more vehicles and drivers available, and if the service had longer hours of operation.
    - It was recommended that more vehicles are needed between 7:00 to 8:30 AM and after 6:00 PM.

- Several participants emphasized that the service needs improvements to address confusion about pick-up locations.
    - Several participants requested that the app provide a message or call feature so that drivers and users can communicate directly.
- Several participants suggested users should be allowed to book a ride a day in advance to provide time for planning in case available rides are all booked.
- Participants recommended that the booking system should not pool passengers that are being picked-up far away from one another, or that are travelling to/from different stations.
- Participants recommended that the booking system be improved so that it accounts for the capacity of each vehicle and not allow over-booking of vehicles, so that passengers are not left behind.
- A participant noted that the app should provide clarity to drivers and users about the service's masking policy and indicated that masking should not be required.

Connecting to the Pilot Goals

Comparing the performance of the pilot on how well it is meeting the objectives thus far is essential to understanding where challenges exist and what improvements can be made to service should it continue or to inform the planning of future pilots.

The following table provides a qualitative analysis of the pilot's performance to date as compared to each of the objectives defined at the start of the pilot.

Enable equitable access to transportation, reduce dependence on single-occupant vehicles and support low-carbon mobility options.

Objectives	Findings
Pilot performance to date	- The pilot has been successful in eliminating the dependency on single-occupancy vehicles for more than half (55%[1]) of the customers who drove and parked at the station prior to the pilot. - The pilot utilizes hybrid vehicles, which support low-carbon mobility options. - Linked trips have enabled low-carbon mobility options by pooling trips to save the vehicle kilometers travelled (VKT). To date, 12% of all trips were linked, resulting in nearly 250km of saved VKT, leading to a reduction in emissions.
Challenges	- Although the pilot has linked trips of 2-3 passengers, majority of trips still only have single occupants. As such, the amount of VKT saved is small and does not lead to significant reduction in emissions. Given customer tolerance of an addition of five minutes to travel time through linked trips, and trip that adds more than five

[1] Data from survey 1

	minutes can lead to poor customer experience, thereby risking loss of interest in the service.
Possible improvements	- Aim to increase ridership in the concentrated areas of service to both increase and optimize linked trips.

Provide an economical means for the City to enable first/last mile transportation options for commuters who use Rutherford and Maple GO stations.

Objectives	Findings
Pilot performance to date	- Due to the Ride to GO program, customers have a free ride to Maple/Rutherford GO when they use MOR. As such, the pilot service provides a very economical option to customers to connect to GO services.
Challenges	- Since the MOR service is essentially free, the City must pay for the entirety of the MOR service. This is currently possible due to the FCM funding.
Possible improvements/Next steps	- If the MOR service to the GO stations can be operated by YRT, the cost can be shared with other MOR programs.

Test the viability and potential market of providing shared micro-transit service.

Objectives	Findings
Pilot performance to date	- The sign-up survey results have shown a great interest for the service (887 signed up for the service as of February 2023, with 529 people qualified for the service). - However, due to the COVID-19 pandemic, ridership has been lower than expected. Although ridership has increased since the start of the pilot (currently over 3000 trips delivered. To date with 121 unique customers). The number of customers have doubled in the last six months due to the extensive marketing and communications as well as the first rider incentive program However, overall ridership remains low compared to the number of people who have signed up and qualified for the service (current unique customers make up 22% of the total number of people qualified for the service).
Challenges	- Despite the increase in ridership in the last six months, with a peak in September with customers heading back to work, the overall ridership has been lower than expected (average of 16 trips/day compared to the expected 90 trips/day projection at the end of 3 months). - Low ridership is a result of the COVID-19 pandemic and reduced demand for work related commute. Although most people travel to the GO stations for work, the frequency of travelled have reduced from 5 days week pre-pandemic to two days a week, according to the survey. The decrease in GO train ridership aligns with the MOR ridership and survey results, leading to the finding

	that MOR service has not generated GO train demand beyond that of the demand that currently exists.
Possible improvements/Next steps	- Targeted marketing and promotions (e.g., back to work) has resulted in an increase in ridership. Continuing to understand the demographics of potential users and their decision making factors is essential to catering marketing campaigns.

Determine the best practices for encouraging mode shift away from driving to shared micro-transit.

Objectives	Findings
Pilot performance to date	- Most respondents indicated travelling 1-2 days a week and most commonly for work, which indicates a shift in travel pattern due to many working from home. - Majority of respondents also indicated both MOR and a personal vehicle as their preferred mode of travel. While MOR has received positive reviews, the ridership and survey data indicates that it has not resulted in shifting people away from driving.
Challenges	- Although most customers appreciate the pilot because it allowed them to leave later and be more independent, this did not result in an increased frequency in trips or purpose of trip. - A handful of customers have indicated wanting to travel outside of service hours and technical difficulties as reasons for not using the pilot service. - A number of customers have indicated challenges with using the MOR app.
Possible improvements/Next steps	- Changing customer habits is a difficult undertaking that can only be successful if the MOR service meets a significant need for customers. Although shared micro transit is an environmentally friendly and cost effective solution, these are not factors of priority for customers. - While the MOR service eliminates the need to park vehicles and increases independence, the low GO train ridership provided ample parking space and difficulties with the MOR app made the service “unreliable” for some customers. As ridership recovery improves over the next few years, MOR service will likely become an attractive option to reduce time saved with finding parking. Furthermore, app approvements will help customers have a good experience and improve their perception on the reliability of the service.

Estimate potential economic benefits to both users and to wider society.

Objectives	Findings
Pilot performance to date	- Due to the free fare to use the pilot service, customers benefit from the money saved in gas and parking.
Challenges	- The current data does not enable the project team to accurately calculate economic benefit. This is due to the lack of information on personal vehicles, money spent on gas/parking or other modes of travel if the customer were to stop using the pilot service.
Possible improvements/Next steps	- Based on survey results, the free cost of the service was not a deciding factor for respondents on their decision to use the service. As such, focusing marketing effects on the rides being free may not be effective to generate ridership. - Catering the service to areas of high demand and linking trips will enable the service to be delivered in an efficient and more cost effective manner.

Next Steps

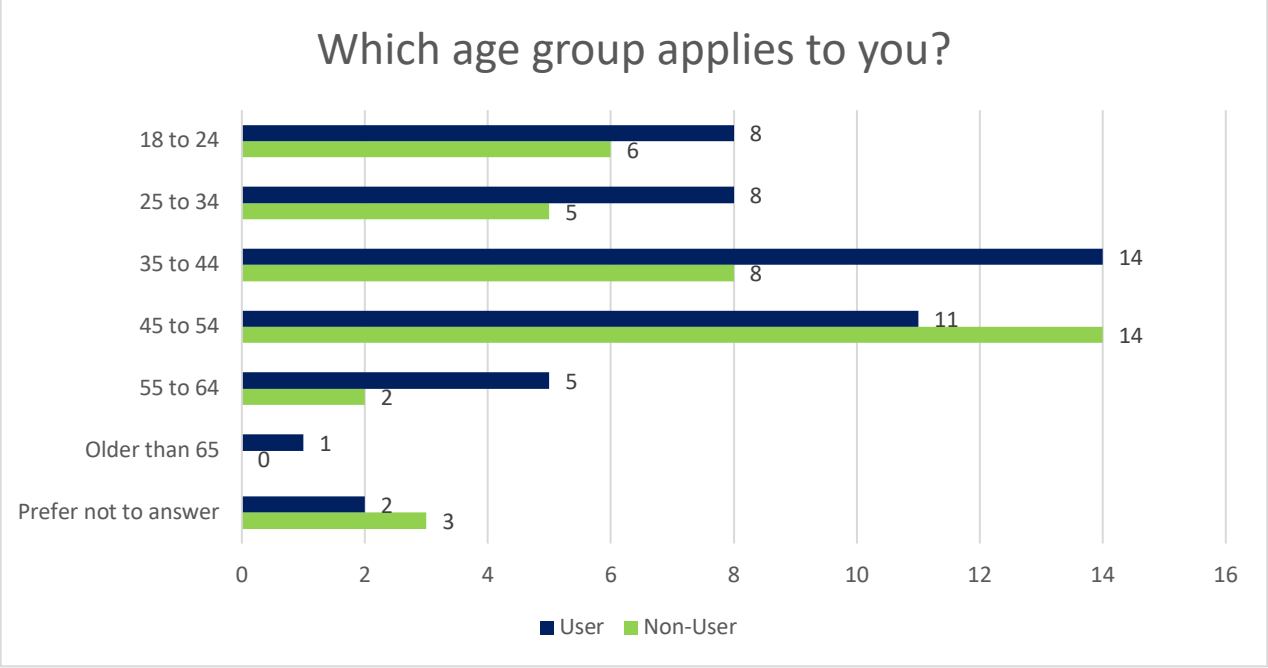
Feedback from this survey will be used in combination with ridership data gathered from the Mobility On-Request app to make changes to the pilot service to improve user experience or expand pilot service in areas identified by respondents.

Future surveys will be shared with Approved Users to review changes to the pilot service as they are implemented.

Appendix A - Demographic Questions

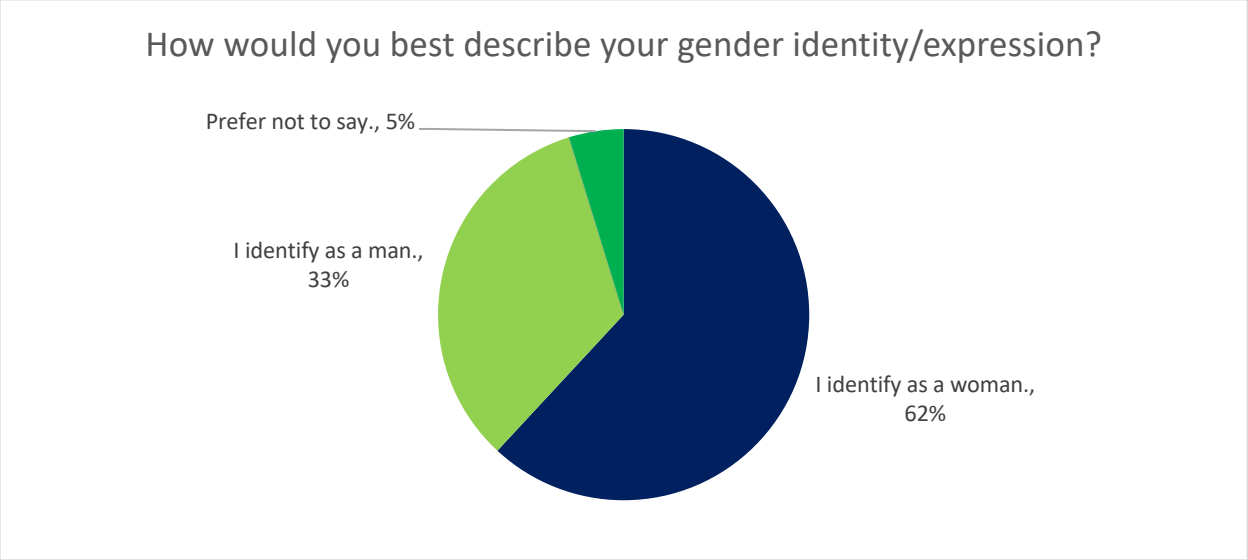
The following demographic questions were asked to better understand who is using the Rutherford-Maple GO Mobility On-Request pilot service. These demographic questions align with questions asked during Metrolinx's 2019 2019 GO Rail Origin Destination Survey.

Which age group applies to you?



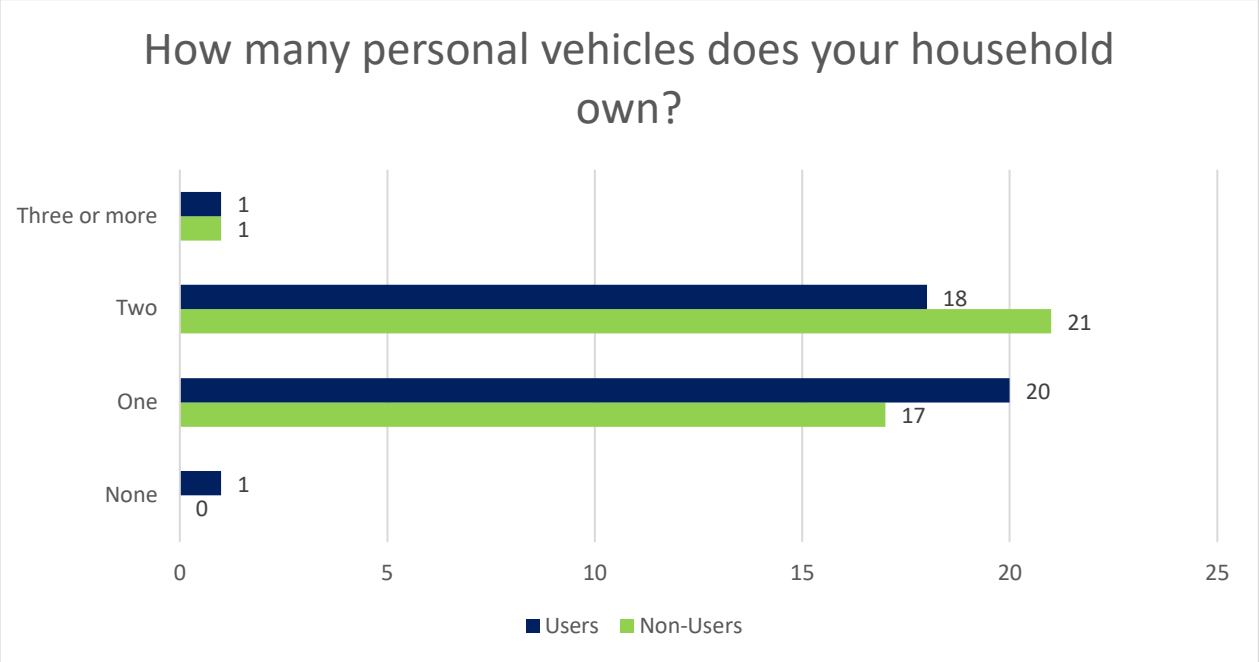
Most respondents to this survey (54%) are between the ages of 35-54. No respondent was younger than 18 years of age. The survey received a higher response rate of Users compared to Non-Users in all age groups except 45 to 54.

How would you best describe your gender identity/expression? The Ontario Human Rights Code defines gender identity as a person's internal and individual experience of gender. It is their sense of being a woman, a man, both, neither or anywhere along the gender spectrum.



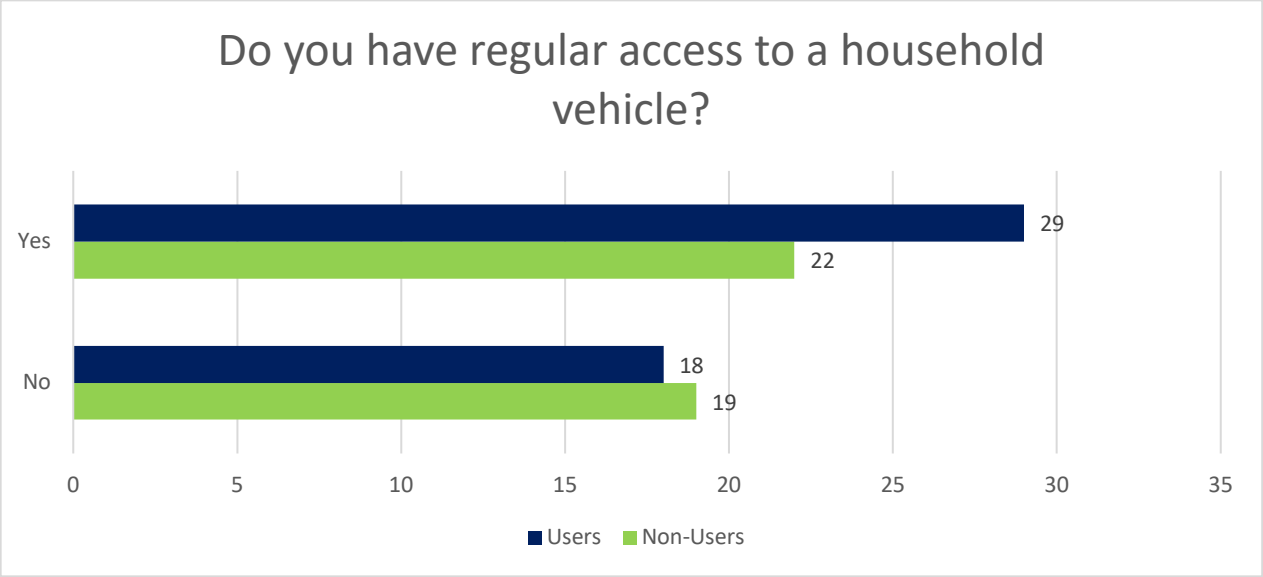
62% of respondents identified as a woman and 33% identified as a man, while approximately 5% of respondents preferred not to answer.

How many personal vehicles does your household own?



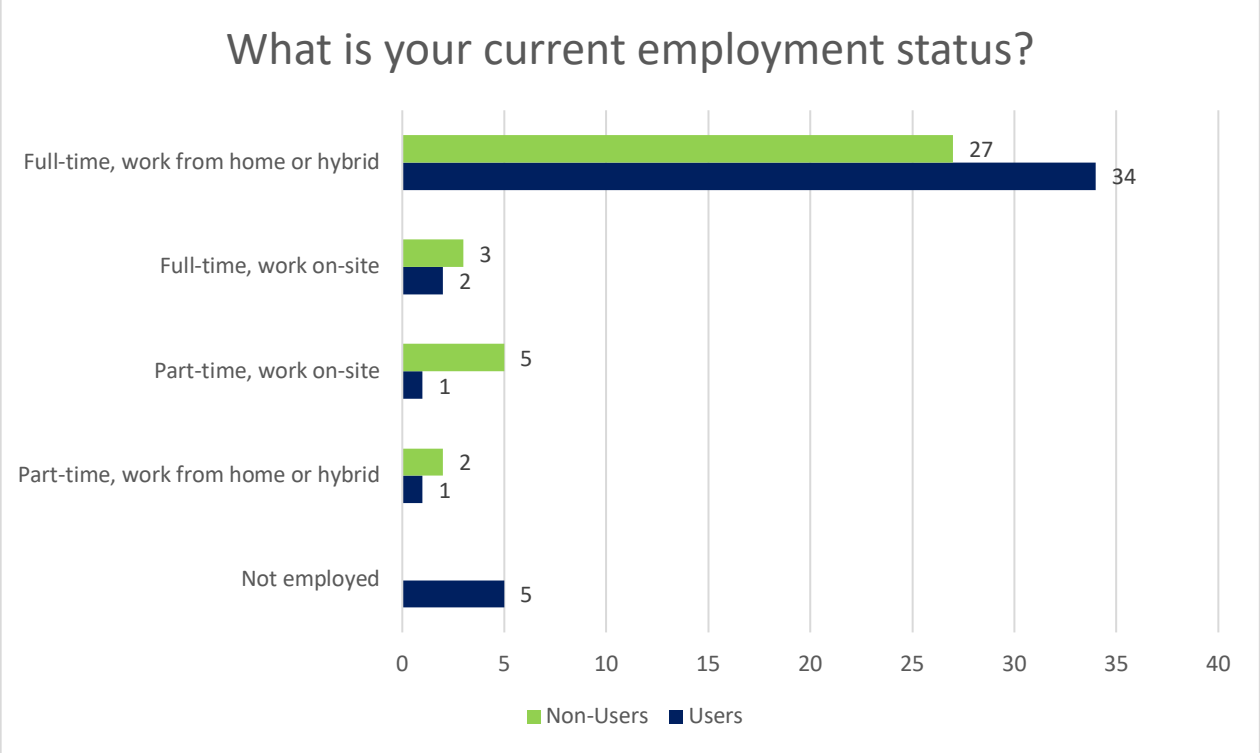
49% of respondents have 2 personal vehicles in their household, while 47% have 1 vehicle.

Do you have regular access to a household vehicle?



The majority of respondents (58%) have regular access to a household vehicle.

What is your current employment status?



80% of respondents work full-time or part-time on a hybrid schedule (at-home and on-site), while 14% work full-time or part-time on site, and 6% are unemployed.

Rutherford and Maple GO Mobility On-Request Pilot

User Experience Survey #3 Summary

June 9, 2023

Prepared by

LURA
LISTEN · UNDERSTAND · RELATE · ADVANCE

For

VAUGHAN

Rutherford and Maple GO Mobility On-Request Pilot Project
User Experience Survey #3 Summary

Executive Summary

About This Survey

The City of Vaughan in partnership with York Region Transit (YRT) and Metrolinx launched its Rutherford and Maple GO Mobility On-Request pilot service on May 2nd, 2022, as part of a year-long initiative to test how a Mobility On-Request service could reduce demand for parking at these GO stations, reduce greenhouse gas emissions, and vehicle traffic. On May 2nd, 2023 YRT integrated the Rutherford and Maple GO Mobility On-Request service into its wider Mobility On-Request service offering as a permanent service.

The following summary documents feedback received from 144 individuals who signed up and were approved to participate in the pilot. This includes both individuals that have used the pilot service since May 2nd, 2022, and individuals who did not use the pilot service.

Conducted 12 months after the start of the pilot, the survey asked participants about their overall experience with this Mobility On-Request, and explored opportunities for possible expansion of the Mobility On-Request program.

Input received from survey respondents will help the pilot project team assess the impact of the pilot from a user's perspective and provide valuable insights to continue refining YRT's Mobility On-Request services.

Key Findings

Results from the survey revealed several key insights:

- Pilot users are generally satisfied with service offered by Mobility On-Request.
- Pilot users identified the flexibility provided by the Mobility On-Request service as the most important quality provided by the service.
- Pilot users identified that over the 12 months the pilot operated, the service quality generally stayed the same. Riders noted they felt the greatest improvement in interactions with drivers. Riders noted areas that they felt got worse were travel time, pick-up, and booking a ride.
    - Although riders identified that they felt travel time got worse, ridership data indicated that on average, travel times remained fairly consistent, and trips were on time at pick-up and drop-off .[1]
- Events and communication provided at the GO stations (station events and posters) were identified as the most effective promotional approaches. Participants identified that even more could be done at stations and on trains to promote the Mobility On-Request service.

[1] Average travel time for trips throughout the 12-month pilot was 10 minutes. Linked trips typically added up to 4 minutes to a trip's travel time. Average on-time performance data indicated that actual time at pick-up and drop-offs was within 2 minutes of scheduled time.

- Pilot users identified that they would recommend the service to a friend, however among all respondents only 27% indicated they learned about the pilot service by word of mouth/referral.
- Participants expressed an interest in potential Mobility On-Request opportunities at other major destinations in the City of Vaughan including Vaughan Metropolitan Centre Subway Station, Vaughan Mills Centre, and Cortellucci Vaughan Hospital.
- Participants indicated that improvements to the booking app would encourage them to use the service more.

Additional details from the survey findings are documented in the following pages in the "What We Heard" section of this summary.

Rutherford and Maple GO Mobility On-Request Pilot Project
User Experience Survey #3 Summary

Project Background

From May 2nd, 2022 to May 2nd, 2023 the City of Vaughan partnered with YRT and Metrolinx to bring Vaughan residents the Rutherford and Maple GO Mobility On-Request Pilot Project. The pilot project's primary goal was to provide people living near these GO station with an alternative mode of travelling to and from these GO stations. The Rutherford and Maple GO Mobility On-Request Pilot Project received funding from the Federation of Canadian Municipalities through the Green Municipal Fund.

Participants of the pilot used the Mobility On-Request app to book a free (when connecting to GO train service using a PRESTO card) YRT-operated vehicle to pick them up from their home and get dropped off at their desired GO station. The same service was provided in the evening to return home from the GO station.

Over the course of the pilot, 648 people were approved to participate in the pilot, and 179 unique users made 4,641 trips[2].

Survey Information

Definitions

This summary uses the following definitions when qualifying the participant groups being discussed:

- *Approved Participant:* Is an individual who lives within the Mobility On-Request service area, has signed up for, consented to and been approved to participate in the pilot program.
- *User:* Is an Approved Participant who has signed up to participate in the Mobility On-Request Pilot program and has made at least one trip since the start of the pilot program.
- *Non-User:* Is an Approved Participant who has signed up to participate in the Mobility On-Request Pilot program but has not made a trip so far.
- *Unknown:* Is an Approved Participant who has signed up to participate in the Mobility-On-Request Pilot program but did not confirm through the survey if they have made a trip.

Survey Communication

Approved Participants received an invitation via email to participate in this survey on May 2, 2023. Instructions specified the purpose of the survey is to gather feedback on participants' overall experience to better understand how to promote and deliver the permanent Mobility On-Request service. Lessons learned from this pilot will help improve service across YRT's Mobility On-Request service offerings.

Approved Participants were reminded to complete the survey on May 17 and 23, 2023, via email.

[2] Total number of trips and unique riders is based on data from May 2, 2022 to May 2, 2023. Totals do not account for missing/unavailable data.

Rutherford and Maple GO Mobility On-Request Pilot Project
User Experience Survey #3 Summary

Survey Details

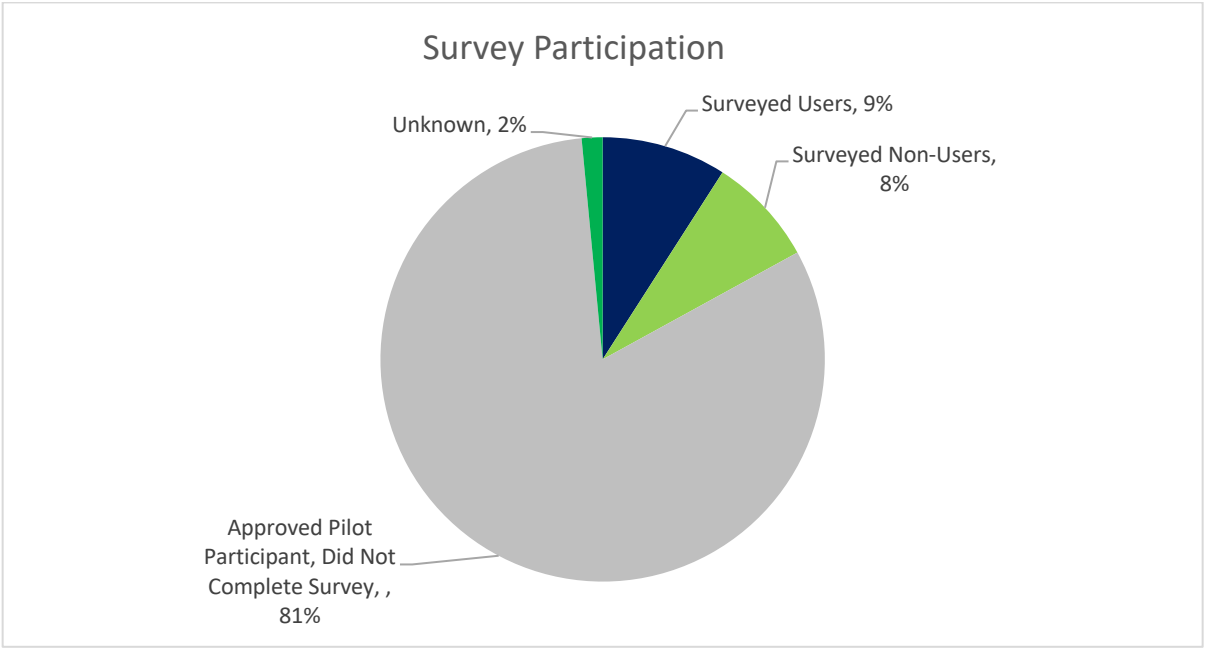
The survey was available from May 2, 2023 to May 24, 2023 and was conducted twelve months after the start of the pilot service. The survey consisted of five sections:

- Section 1: Introduction
- Section 2: Thoughts on the Pilot Service
- Section 3: Promotion of the Service
- Section 4: Mobility On-Request in the Future
- Section 5: User Demographics (See Appendix A for details)

All Approved Participants responded to questions in Section 1,3, 4 and 5. Participants who indicated they have used the pilot service (*Users*) were asked additional questions in Section 2. In Section 5, respondents were given the option to provide demographic information about themselves and to enter a into a contest for one of three gift card prizes as a thank you for completing the survey.

Response Rate

Survey Participation

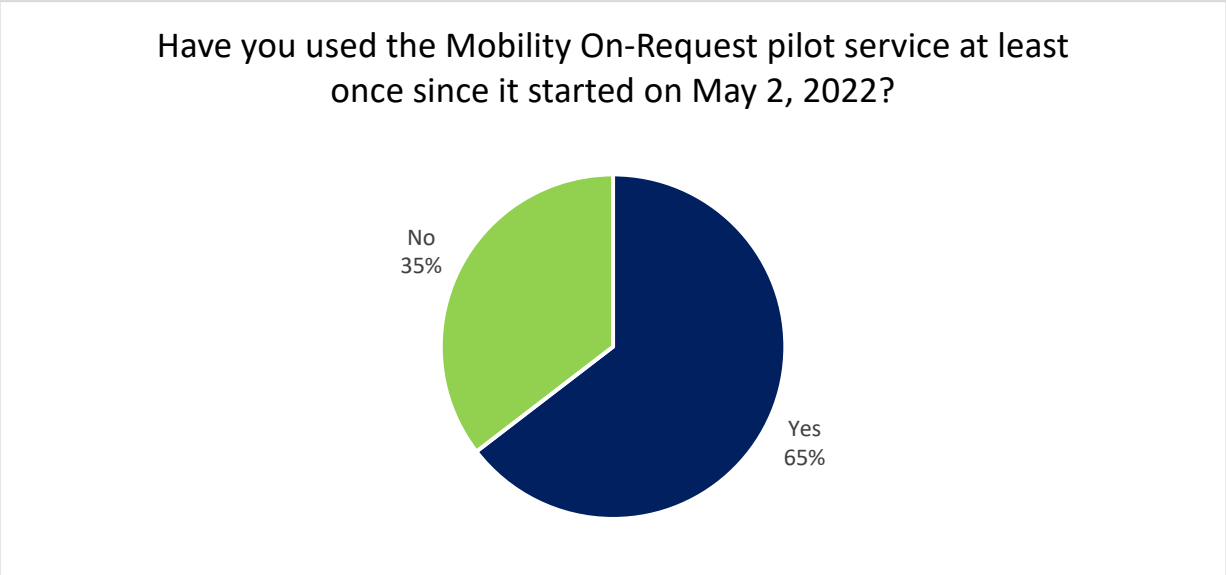


In total, 144 Approved Participants completed the survey – representing a participation rate of 22%. Of these respondents, 93 were Users and 51 were Non-Users.

Rutherford and Maple GO Mobility On-Request Pilot Project
User Experience Survey #3 Summary

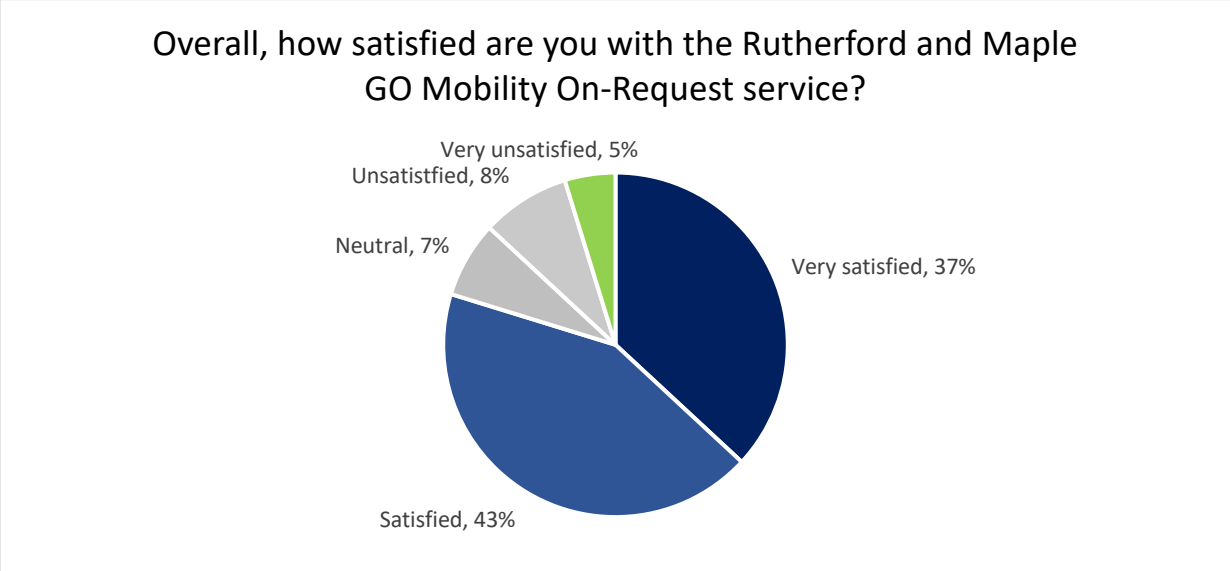
What We Heard

Question 1 - Have you used the Mobility On-Request pilot service at least once since it started on May 2, 2022?



Nearly two-thirds (65%) indicated that they have used Mobility On-Request pilot service at least once since it started on May 2, 2022. One hundred forty-four (144) respondents completed this question.

Question 2 - Overall, how satisfied are you with the Rutherford and Maple GO Mobility On-Request service?



Most respondents (80%) indicated that they are very satisfied or satisfied with the Rutherford and Maple GO Mobility On-Request service. Eighty-four (84) respondents completed this question.

Rutherford and Maple GO Mobility On-Request Pilot Project
User Experience Survey #3 Summary

Question 3 - Please tell us more about your response to Question 2. Why are you satisfied/unsatisfied with the service?

Sixty-one (61) respondents provided additional written comments explaining their choice and level of satisfaction with the service.

Participants who were satisfied with the service generally indicated:

- The drivers are friendly and professional.
- The service is generally convenient, safe, and runs on-time.

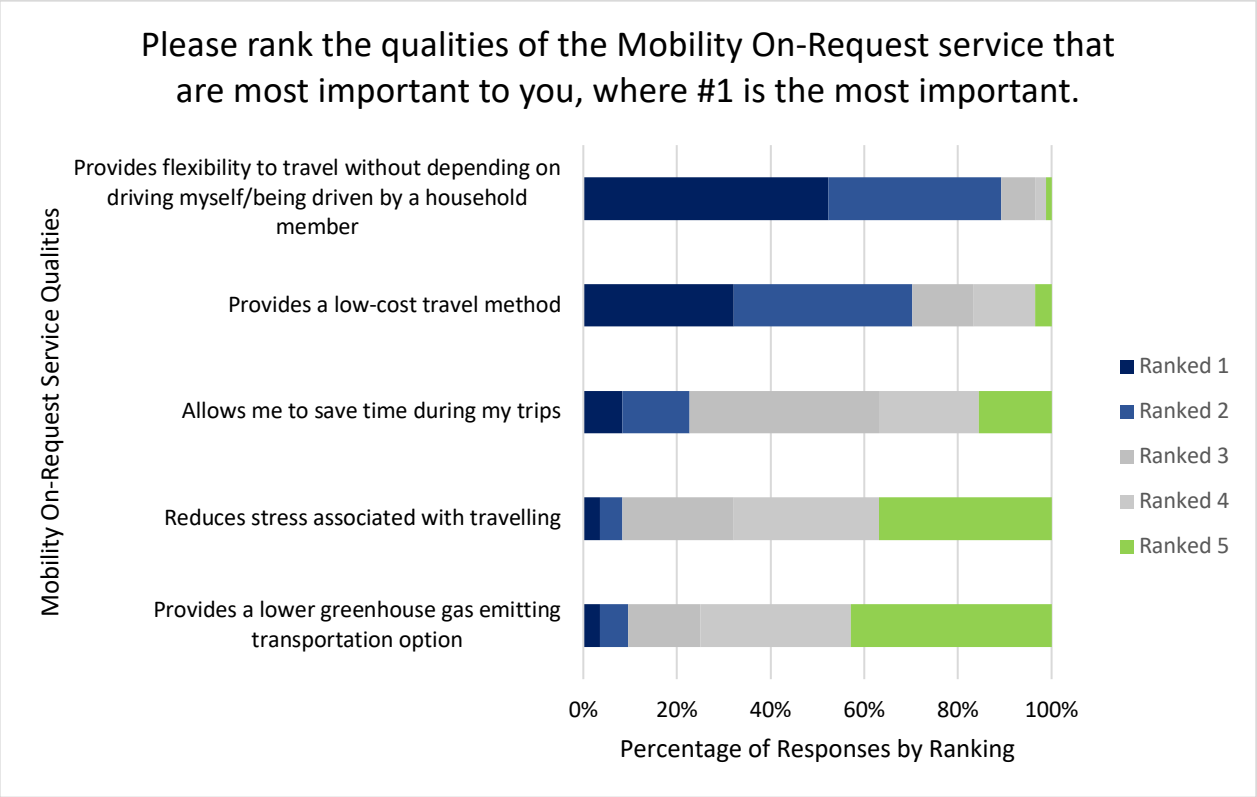
Participants who were unsatisfied with the service generally indicated:

- Over the duration of the pilot it became harder to book a trip, with more instances of the app indicating that a trip is not available. This was the most commonly referred to issue with the service in this survey question, with eighteen (18) respondents raising this issue.
- Some respondents shared instances of pooled trip routings that they feel could be optimized to service stops more efficiently – these respondents expressed frustration with trips pooling riders from both stations, adding time to their journey.
    - Some respondents attributed pooling trips to instances of nearly missing or missing their train when travelling to the GO station.
- A few respondents expressed that some drivers were less familiar with answers to questions they had about the pilot service and troubleshooting issues associated with the app or Presto.

Participants suggested improvements including:

- Removing one of the stations from the service area so that Mobility On-Request is more centralized.
- Ongoing improvements to the app's user interface.

Question 4 - Please rank the qualities of the Mobility On-Request service that are most important to you, where #1 is the most important.



Mobility On-Request Service Qualities	Average Rank
Provides flexibility to travel without depending on driving myself/being driven by a household member	1.63
Provides a low-cost travel method	2.18
Allows me to save time during my trips	3.21
Reduces stress associated with travelling	3.93
Provides a lower greenhouse gas emitting transportation option	4.05

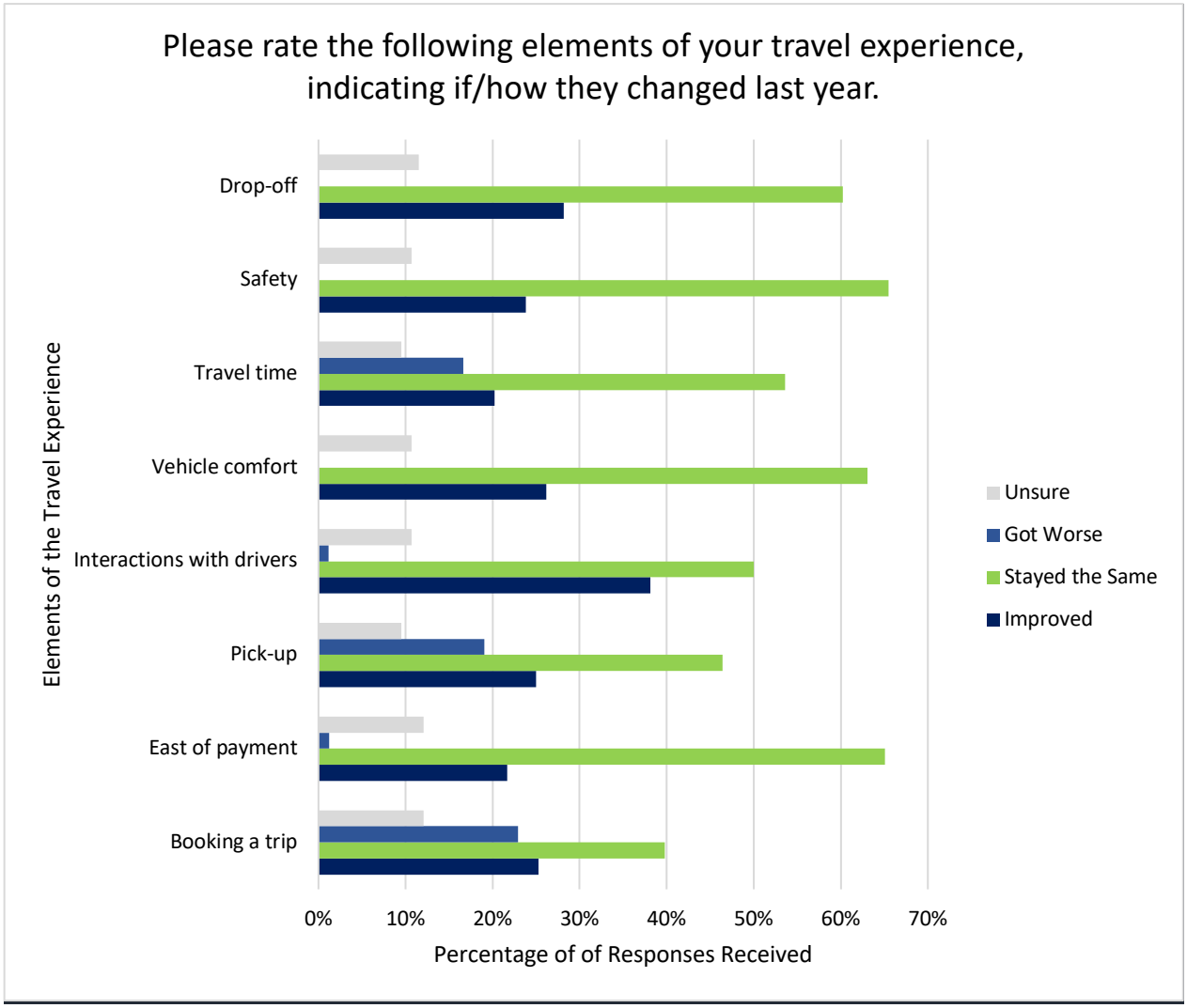
Participants ranked “flexibility of travel without depending on driving myself/being driven by a household member” as the most important quality provide by the Mobility On-Request Service. Eighty-four (84) respondents completed this question.

Question 5 - Are there any other qualities of the Mobility On-Request service that are important to you but not listed in Question 4?

- Efficiency arriving and departing the station – less time is spent searching for parking or waiting in parking lot traffic to leave the station.
- Availability of a vehicle when it is needed.
- Saves on the cost of transportation.

Sixteen (16) respondents completed this optional question.

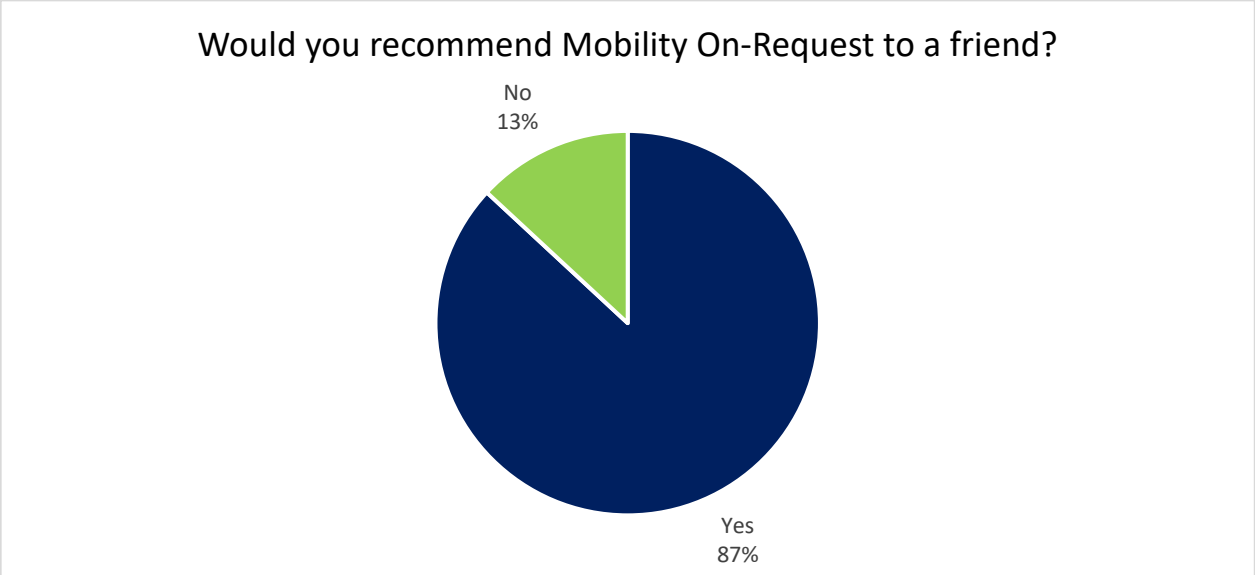
Question 6 - Please rate the following elements of your travel experience, indicating if/how they changed last year.



Most respondents (ranging between 40% to 65% of respondents) noted that elements of their travel experience as "Stayed the same." The most improved element of the travel experience was *Interactions with Drivers*. Most elements of the travel experience received very small (<1%) or no responses indicating the service got worse. *Booking a Trip, Pick-Up, and Travel Time* were the primary elements where respondents indicated service "Got Worse" over the 12 months of the pilot.

In total, eighty-four (84) respondents completed this question.

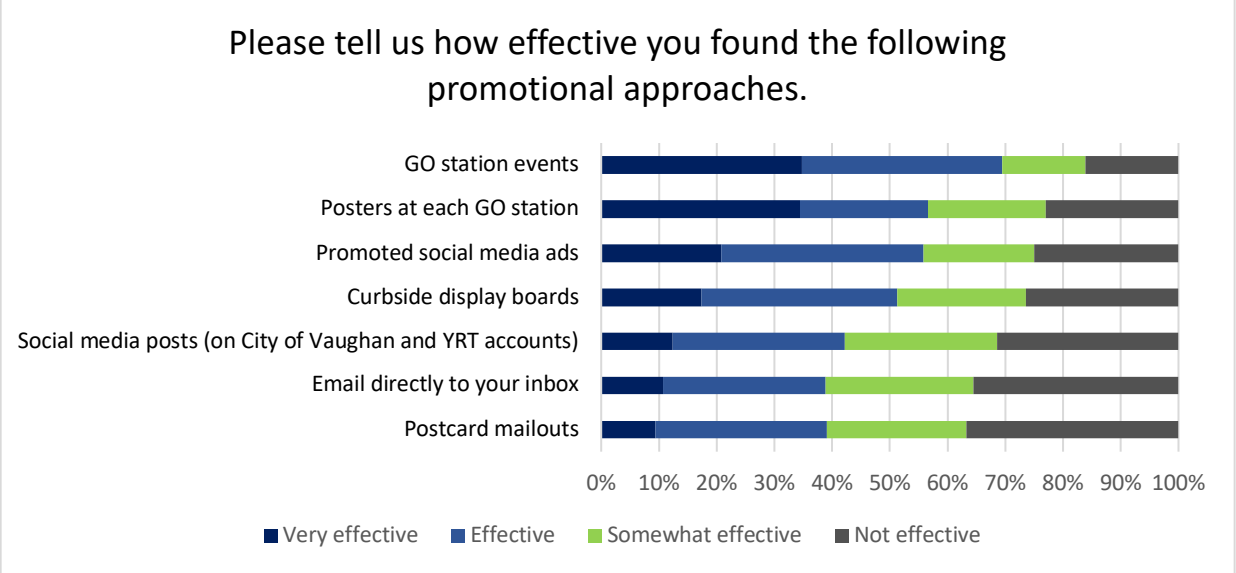
Question 7 - Would you recommend Mobility On-Request to a friend?



Most respondents (87%) indicated that they would recommend Mobility On-Request to a friend.

Eighty-four (84) respondents completed this question.

Question 8 - The City of Vaughan used a variety of promotional approaches to raise awareness and encourage ridership of the pilot service. Please tell us how effective you found the following promotional approaches.



Respondents identified that GO station events and GO station posters were the two most effective promotional approaches, while email direct to their inbox and postcard mailouts were the least effective.

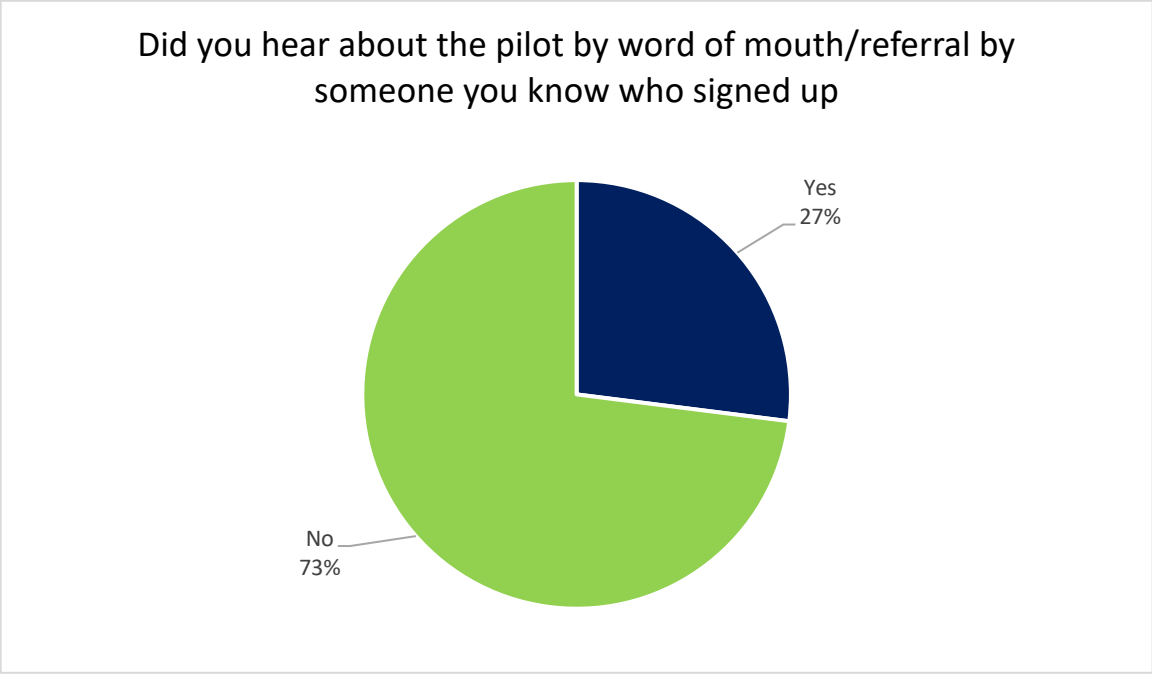
One hundred twenty-five (125) respondents completed this question.

Question 9 - What additional promotional approaches would you recommend the City of Vaughan consider when promoting its Mobility On-Request services?
Participants suggested the following additional approaches:

- Targeted social media groups for locations. For example, Maple GO Station has a dedicated, rider-run Facebook group.
- Information on notice boards in nearby community centres.
- Radio announcements.
- Promotional integration with GO stations and vehicles – participants referenced posters and advertisement at GO stations and on vehicles, and announcements on the GO train as potential tactics. Several participants indicated that they felt there could have been more awareness in the stations where the program was operating.
- Newspaper advertisements.

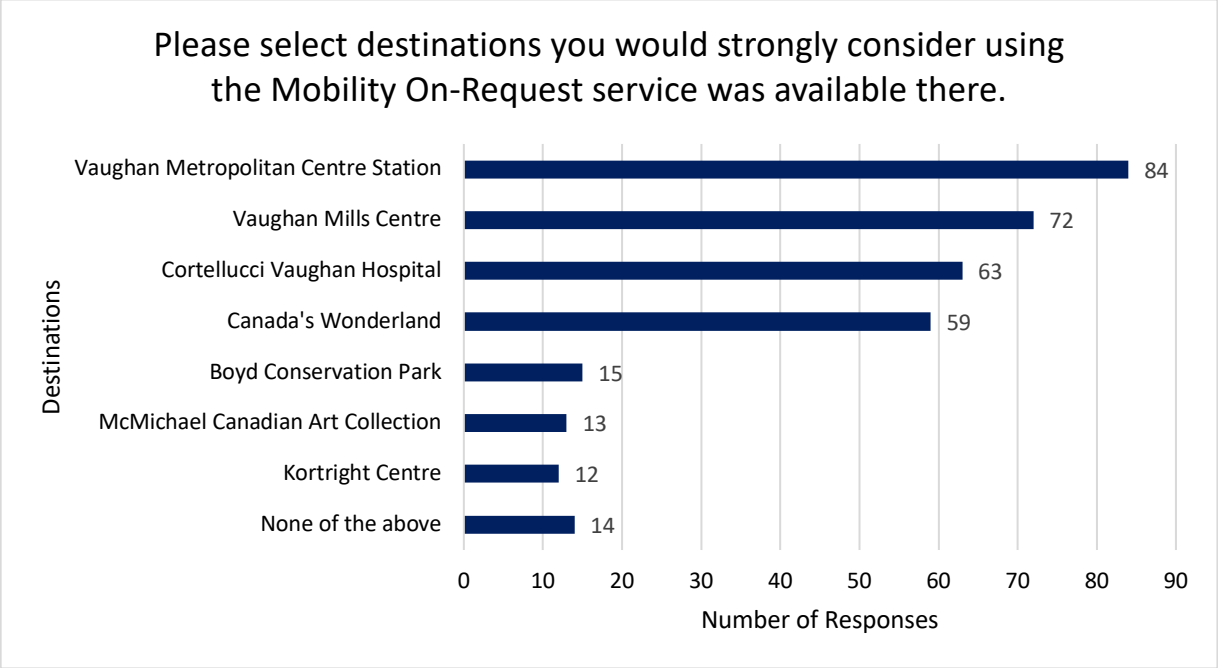
Thirty-three (33) respondents completed this optional question.

Question 10 - Did you hear about the pilot by word of mouth/referral by someone you know who signed up?



Most respondents (73%) indicated that they did not learn about the pilot by word of mouth or through referral by someone they know who signed up. One hundred twenty-seven (127) respondents completed this question.

Question 11 - The City of Vaughan is exploring how the Mobility On-Request service may evolve to better serve key destinations in the city. From the following list, please select destinations you would strongly consider using the Mobility On-Request service was available there.



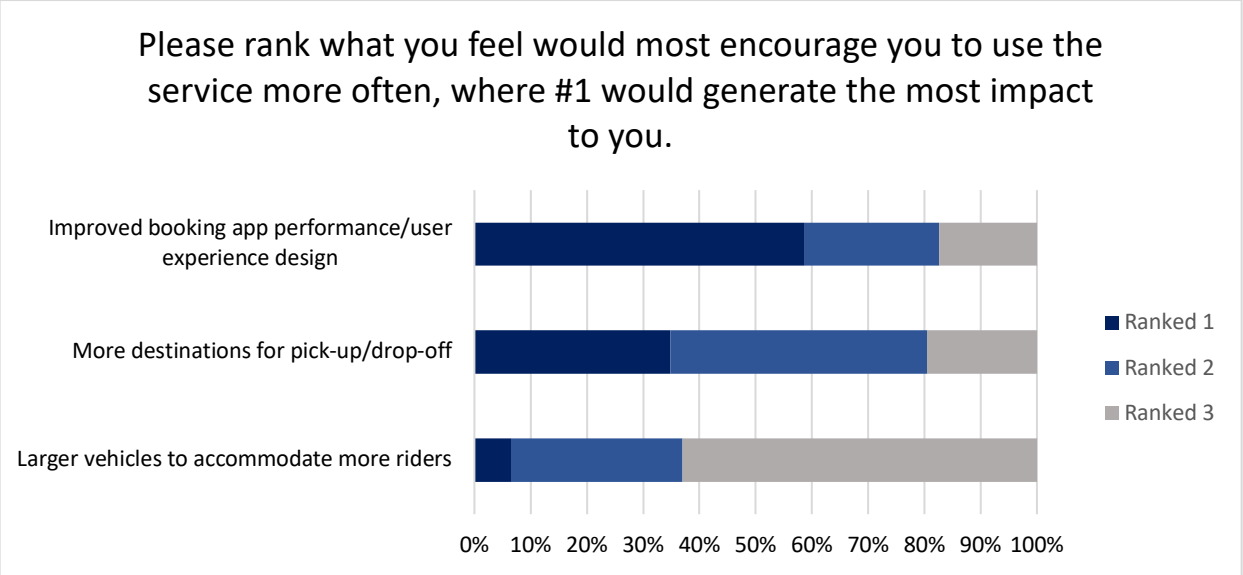
Respondents indicated that Vaughan Metropolitan Centre Subway Station, Vaughan Mills Centre, and Cortellucci Vaughan Hospital as the top destinations they would strongly consider using the Mobility On-Request service if it were available.

One hundred twenty-one (121) respondents completed this question.

Respondents also noted that they would use the Mobility On-Request service to access the following locations:

- Local community centres
- Yorkdale Shopping Centre
- Cineplex Cinemas Vaughan
- Highway 407 Station
- Rutherford GO Station
- Yonge Street and Rutherford Road
- Yonge Street and Steeles Avenue
- Kleinburg

Question 12 - Please rank what you feel would most encourage you to use the service more often, where #1 would generate the most impact to you.



Service Qualities	Users Average Rank	Non-User Average Rank
Improved booking app performance/user experience design	1.50	1.59
More destinations for pick-up/drop-off	1.82	1.85
Larger vehicles to accommodate more riders	2.68	2.57

Respondents indicated that improvements to the booking app performance and user experience design would encourage them to use the service more. This feedback is consistent with feedback received in previous surveys.

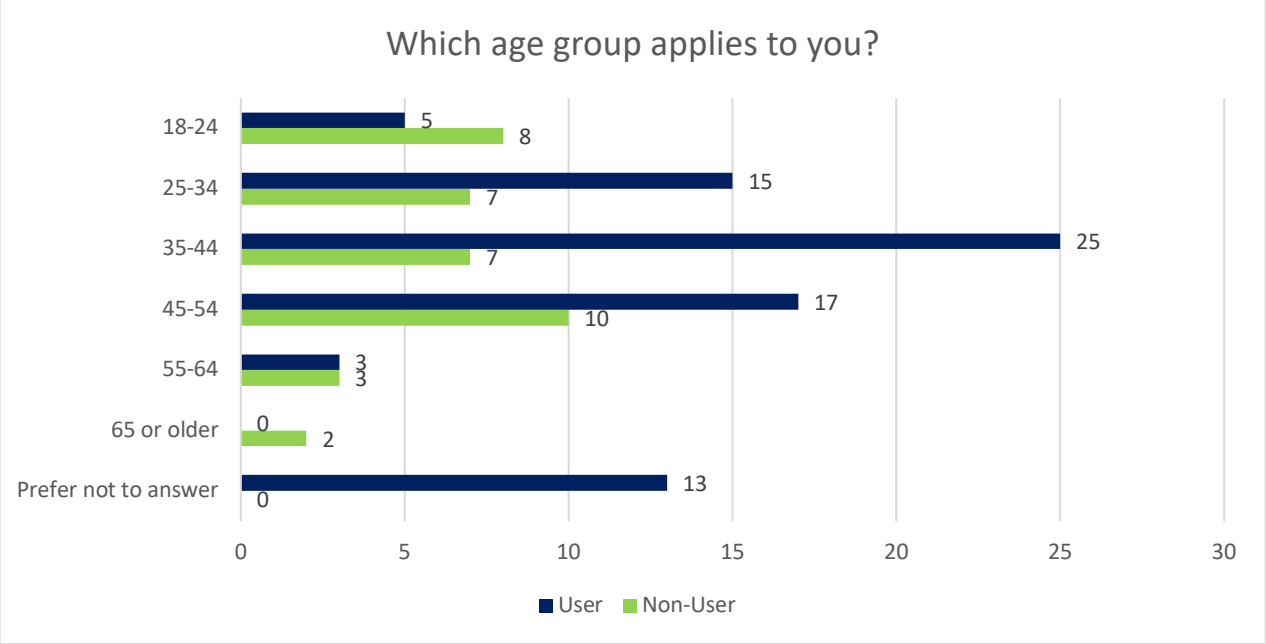
Next Steps

Feedback from this survey will be used in combination with ridership data gathered from the Mobility On-Request app to evaluate the pilot in a final report and provide the City of Vaughan and York Region Transit with information to consider improvements to the Mobility On-Request service as well as lessons learned for similar pilots in the future.

Appendix A - Demographic Questions

The following demographic questions were asked to better understand who is using the Rutherford-Maple GO Mobility On-Request pilot service. These demographic questions align with questions asked during Metrolinx's 2019 2019 GO Rail Origin Destination Survey.

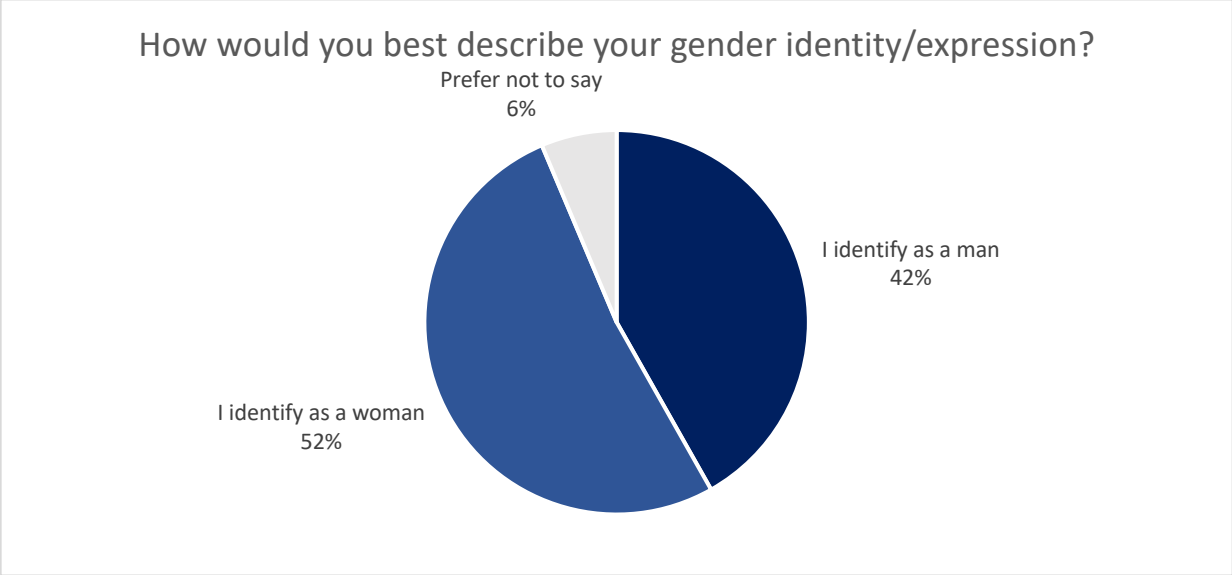
Which age group applies to you?



Most respondents to this survey (51%) are between the ages of 35-54. No respondent was younger than 18 years of age.

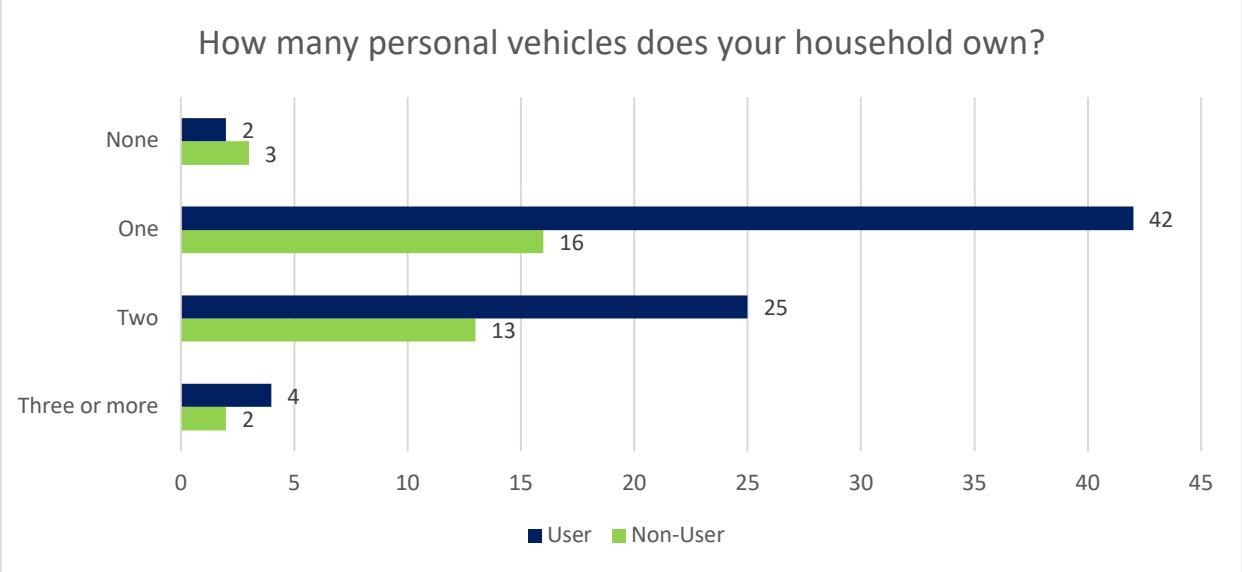
Rutherford and Maple GO Mobility On-Request Pilot Project
User Experience Survey #3 Summary

How would you best describe your gender identity/expression? The Ontario Human Rights Code defines gender identity as a person's internal and individual experience of gender. It is their sense of being a woman, a man, both, neither, or anywhere along the gender spectrum.



54% of respondents identified as a woman and 40% identified as a man, while approximately 6% of respondents preferred not to answer.

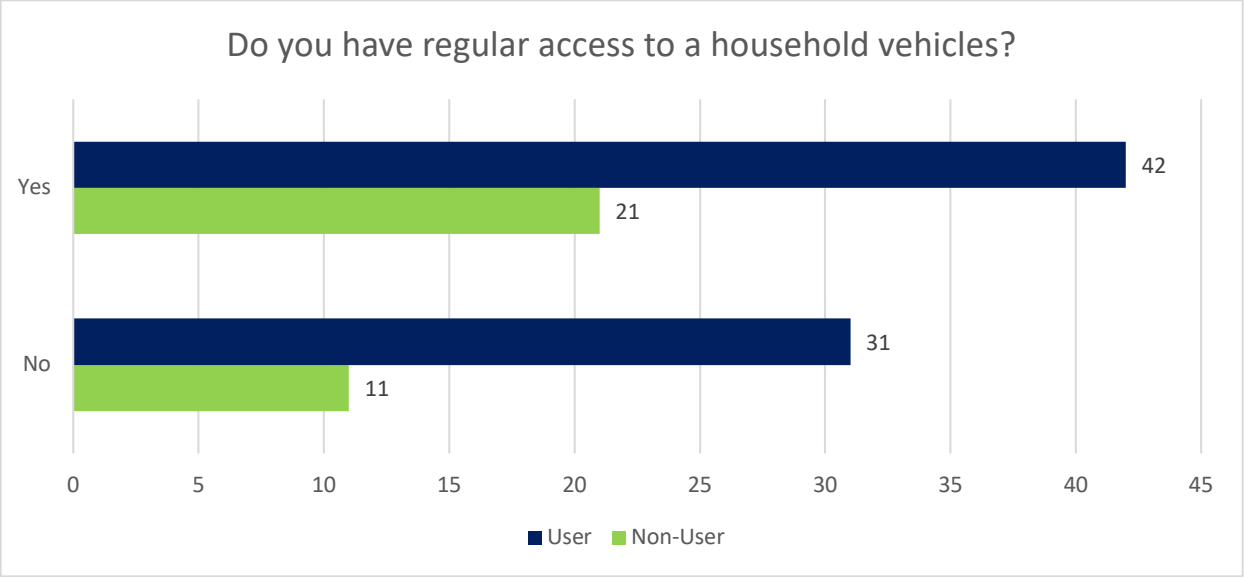
How many personal vehicles does your household own?



42% of respondents have two or more personal vehicles in their household, while 54% have one vehicle.

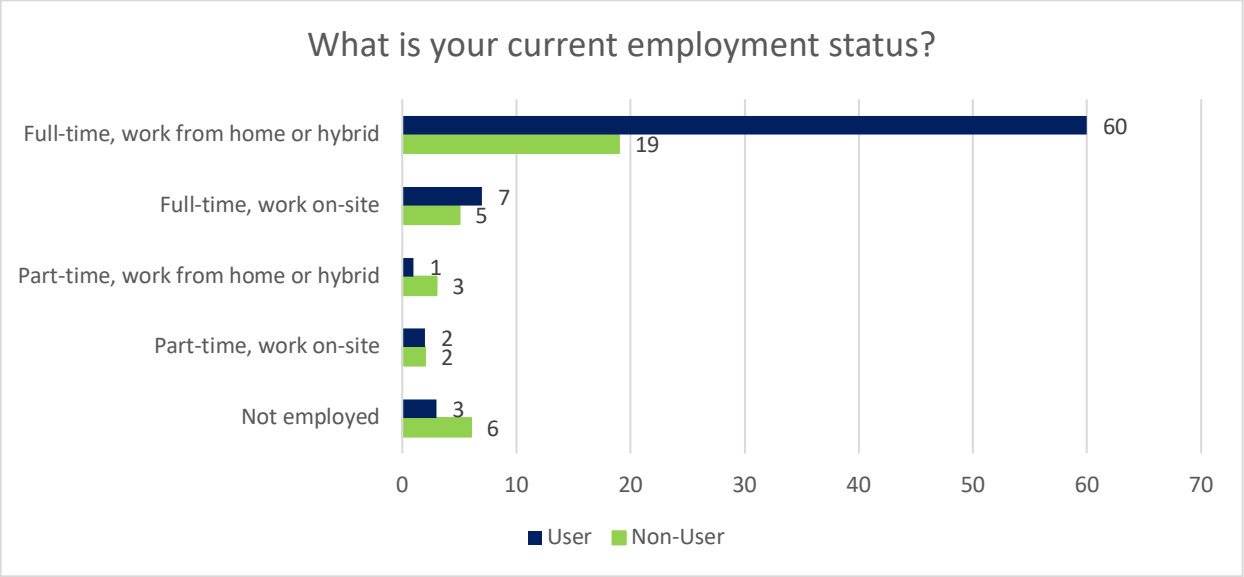
Rutherford and Maple GO Mobility On-Request Pilot Project
User Experience Survey #3 Summary

Do you have regular access to a household vehicle?



Most respondents (60%) have regular access to a household vehicle.

What is your current employment status?



77% of respondents work full-time or part-time on a hybrid schedule (at-home and on-site), while 15% work full-time or part-time on site, and 8% are unemployed.