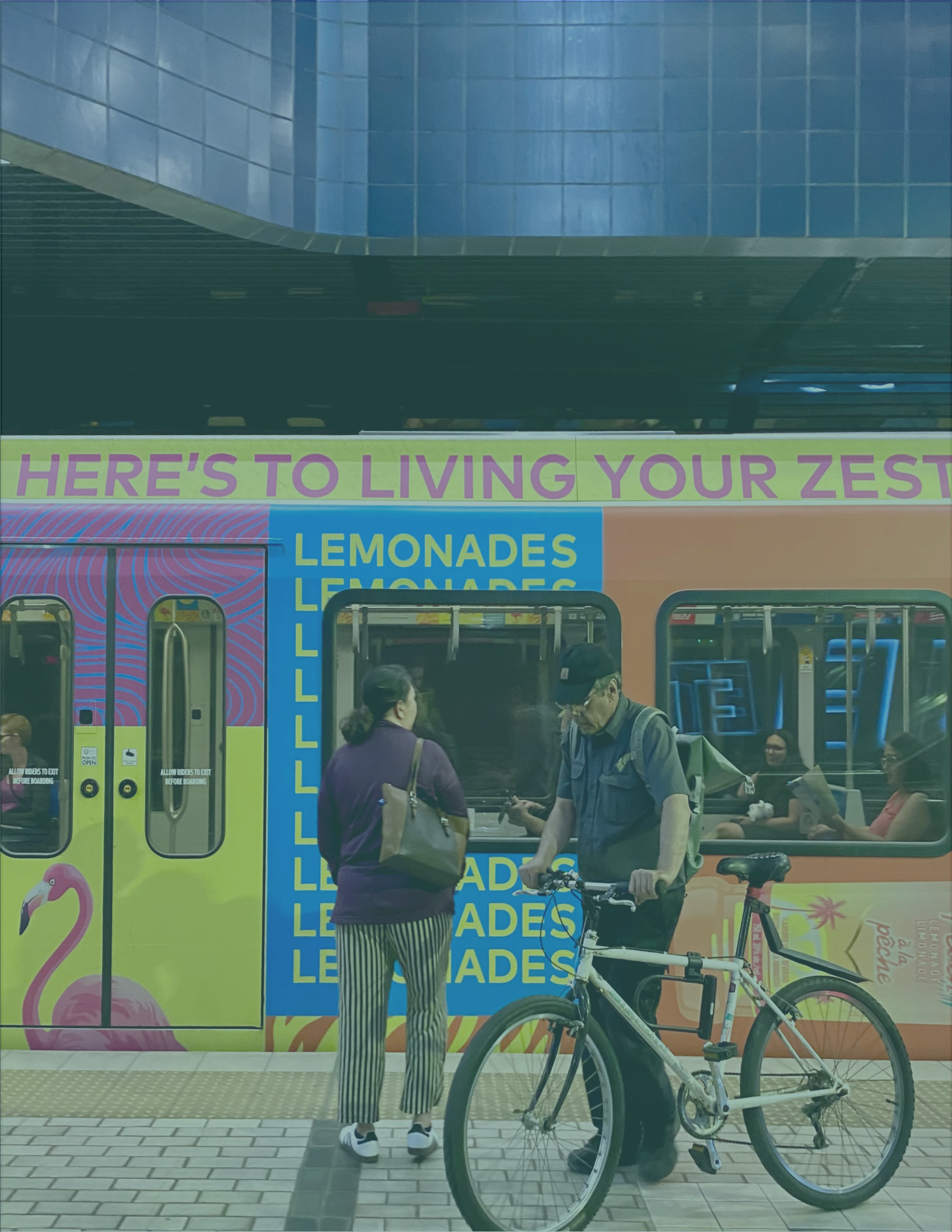
Measuring the impacts of the Valley Line Southeast LRT

Progress Report 2023 – 2024

MOBILIZING JUSTICE

TRAM TRANSPORTATION RESEARCH AT MCGILL


HERE'S TO LIVING YOUR ZEST
LEMONADES
ALLOW RIDERS TO EXIT BEFORE BOARDING
PUSH TO OPEN
ALLOW RIDERS TO EXIT BEFORE BOARDING
à la pêche

Produced by Thiago Carvalho, Matthew Palm, Steven Farber, and Ahmed El-Geneidy

All photos and maps used in this report have been sourced from the Transportation Research at McGill (TRAM) lab.

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About Mobilizing Justice

The Mobilizing Justice Partnership is funded by the Social Sciences and Humanities Research Council (SSHRC). Based at the University of Toronto Scarborough, the national intersectoral research partnership aims to understand and address transportation poverty in Canada and to improve the well-being of Canadians at risk of transport poverty. Learn more at www.mobilizingjustice.

Territorial Acknowledgment

We would like to acknowledge that McGill University, where this report was produced, is located on unceded Indigenous lands. Tiohtià:ke/Montréal has long served as a site of meeting and exchange amongst Indigenous peoples, including the Kanien'kehaì:ka of the Haudenosaunee Confederacy, Huron/Wendat, Abenaki, and Anishinaabeg, among others. The Mobilizing Justice Partnership & TRAM recognize and respect these nations as the traditional stewards of the lands and waters. We respect the continued relationship these diverse Indigenous peoples have with the territory upon which we now gather.

Research Acknowledgment

This research would not have been possible without the invaluable contributions of our collaborators and partners. We appreciate the insights and support from the City of Edmonton, whose involvement was instrumental in facilitating this research.

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Summary

The Valley Line Southeast, a new light-rail (LRT) line in Edmonton, began operations in Fall 2023, connecting downtown to the Mill Woods neighborhood. The route marks the first phase of the Valley Line, which will be fully completed with the opening of the Valley Line West in 2028. The project is part of a larger low-floor LRT network aimed at connecting communities to employment centers and downtown. As the largest infrastructure project in Edmonton's history, the Valley Line project provides a unique opportunity to understand how perceptions and travel behaviour around the route evolve before and after its opening. This report focuses on the first two waves of survey data collected by the Mobilizing Justice Partnership: one month before the line's opening in Fall 2023 (N = 571) and six months after in Spring 2024 (N = 446). The surveys are part of a larger pilot project titled "Light Rail Transit Equity Evaluation", which examines how new LRT lines improve people's participation in society and the economy. The pilot project is funded by Social Sciences and Humanities Research Council (SSHRC) through the Mobilizing Justice Partnership. In this report, we document the survey methodology and summarize the key findings for the first two waves of the data.

Key findings

- In terms of perceptions, before the opening of the Valley Line Southeast, most respondents belived that the project would be a positive contribution to the city, their neighborhood, and the environment.
- Approximately 37% of low-income respondents have the most concern about being displaced with the opening of the Valley Line Southeast. The highest share compared to medium (19%) and high-income (28%) respondents.
- 56% of low-income respondents who expressed a positive intention to use the Valley Line prior to its opening have done so, a significant higher share compared to high-income respondents (30%).
- Respondents have used the Valley Line Southeast mostly for commuting and to reach leisure destinations.
- When deciding to use Edmonton's LRT lines, affordability (45%) and travel time saving (23%) are cited as the main factors.
- Similar levels of bus and LRT users are satisfied with their trip experiences (70%). Even so, LRT users are more satisfied with the cost of their trip compared to bus users.

Sommaire

La ligne Valley Line Southeast, une nouvelle ligne de métro léger (LRT) à Edmonton, a commencé ses opérations à l'automne 2023, reliant le centre-ville au quartier de Mill Woods. Ce trajet marque la première phase de la Valley Line, qui sera entièrement complétée avec l'ouverture de la Valley Line West en 2028. Le projet fait partie d'un réseau plus large de métro léger à plancher bas, visant à connecter les communautés aux centres d'emploi et au centre-ville. En tant que plus grand projet d'infrastructure de l'histoire d'Edmonton, le projet Valley Line offre une occasion unique de comprendre comment les perceptions et le comportement de déplacement autour de la ligne évoluent avant et après son ouverture. Ce rapport se concentre sur les deux premières vagues de données recueillies par le partenariat Mobilizing Justice : un mois avant l'ouverture de la ligne à l'automne 2023 (N = 571) et six mois après, au printemps 2024 (N = 446). Les enquêtes font partie d'un projet pilote plus vaste intitulé « Évaluation de l'équité dans les nouvelles lignes de métro léger », qui examine comment les nouvelles lignes de LRT améliorent la participation des gens à la société et à l'économie. Le projet pilote est financé par le Conseil de recherches en sciences humaines (CRSH) dans le cadre du partenariat Mobilizing Justice. Dans ce rapport, nous documentons la méthodologie de l'enquête et résumons les principales conclusions des deux premières vagues de données.

Principaux résultats

- En ce qui concerne les perceptions, avant l'ouverture de la Valley Line Southeast, la plupart des répondants croyaient que le projet serait une contribution positive pour la ville, leur quartier et l'environnement.
- Environ 37 % des répondants à faible revenu ont exprimé des inquiétudes quant à leur possible déplacement avec l'ouverture de la Valley Line Southeast, la plus forte proportion comparée aux répondants à revenu moyen (19 %) et à revenu élevé (28 %).
- 56% des répondants à faible revenu qui avaient exprimé une intention positive d'utiliser la Valley Line avant son ouverture l'ont fait, une part significativement plus élevée comparée aux répondants à revenu élevé.
- Les répondants ont principalement utilisé la Valley Line Southeast pour se rendre au travail et à des destinations de loisirs.
- Lorsqu'ils décident d'utiliser les lignes de LRT d'Edmonton, l'accessibilité financière (45 %) et le gain de temps de trajet (23 %) sont cités comme les principaux facteurs.
- Des niveaux similaires d'usageurs de bus et de LRT sont satisfaits de leur expérience de voyage. Cependant, les usagers du LRT sont plus satisfaits du coût que ceux du bus.


PARKING
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1 Introduction

Opening to positive feedback from riders [1], the long waited Valley Line Southeast began operations in late Fall 2023. The 1.8 billion project is a 13.1 km, low-floor LRT line running from downtown to the Mill Woods neighborhood in the southeast of the city [2, 3]. The line was built under a public-private partnership (P3), with financial contributions from the local, provincial, and federal governments.

The project was not absent from challenges. Construction on the Valley Line Southeast began in Spring 2016 charged by TransEd, a consortium including Bechtel, Bombardier, EllisDon and Fengate Capital Management, also responsible for operating and maintaining the route [4-6]. The discovery of a large concrete slab beneath the existing bridge along the North Saskatchewan River, disruptions caused by the COVID-19 pandemic, and structural issues with piers supporting the elevated section of the route contributed to delaying the originally scheduled 2021 opening [4-6]. The Valley Line Southeast is the first phase of the Valley Line, the largest infrastructure project in Edmonton history [2]. The second phase, the Valley Line West, will provide an additional 14 km to the Valley Line and connect downtown to Lewis Farms, in the western part of the city [7]. The second phase of the project started construction in 2021, and it is expected to open in 2028.

The Valley Line is part of a larger vision for Edmonton aiming to create an attractive and integrated rapid transit network system connecting communities to employment opportunities and downtown [8-9]. With an estimated daily ridership of 100,000 passengers, the Valley Line will offer quick, reliable, and accessible transportation options for residents, enhancing connectivity and urban mobility throughout the city [2].

Given the considerable impacts of the Valley Line LRT on the Edmonton region, there is a need to understand people's changing perceptions and behaviours before and after the implementation of the project. To address this issue, the Mobilizing Justice partnershuip conducted a multi-wave survey intended to provide longitudinal insights into the respondent's perceptions of the impact of the Valley Line as well as on their travel experiences. The research has a particular interest on understanding how large transit infrastructure investments affect equity-seeking groups, such as low-income individuals, visible minorities, and women, who are likely to be disproportionately affected by the project. Two survey waves have been completed: wave 1 during the months of October and November of 2023, just before the opening of the Valley Line Southeast route, and wave 2 in April and May of 2024, approximately six months after the route became operational.

The surveys were administered in the Edmonton Census Metropolitan Area (CMA) targeting participants aged 18 years and older. The first wave garnered 571 valid responses, while the second wave received 446 valid responses. A panel dataset of 270 respondents is available. Recruitment for each wave was conducted by researchers associated with the Mobilizing Justice Partnership using online methods. Additional recruitment was undertaken by Leger, a market-research agency. This report focuses on the collection, validation, and analysis of the data collected on the Valley Line LRT. The evidence generated from these assessments will be relevant to policies in future LRT extensions.

1.1 The Valley Line Southeast

Valley Line Southeast Stations

1 - 102 Street stop
2 - Churchill station
3 - Quarters stop
4 - Muttart stop
5 - Strathearn stop
6 - Holyrood stop
7 - Bonnie Doon stop
8 - Avonmore stop
9 - Davies station
10 - Millbourne/Woodvale stop
11 - Grey Nuns stop
12 - Mill Woods stop

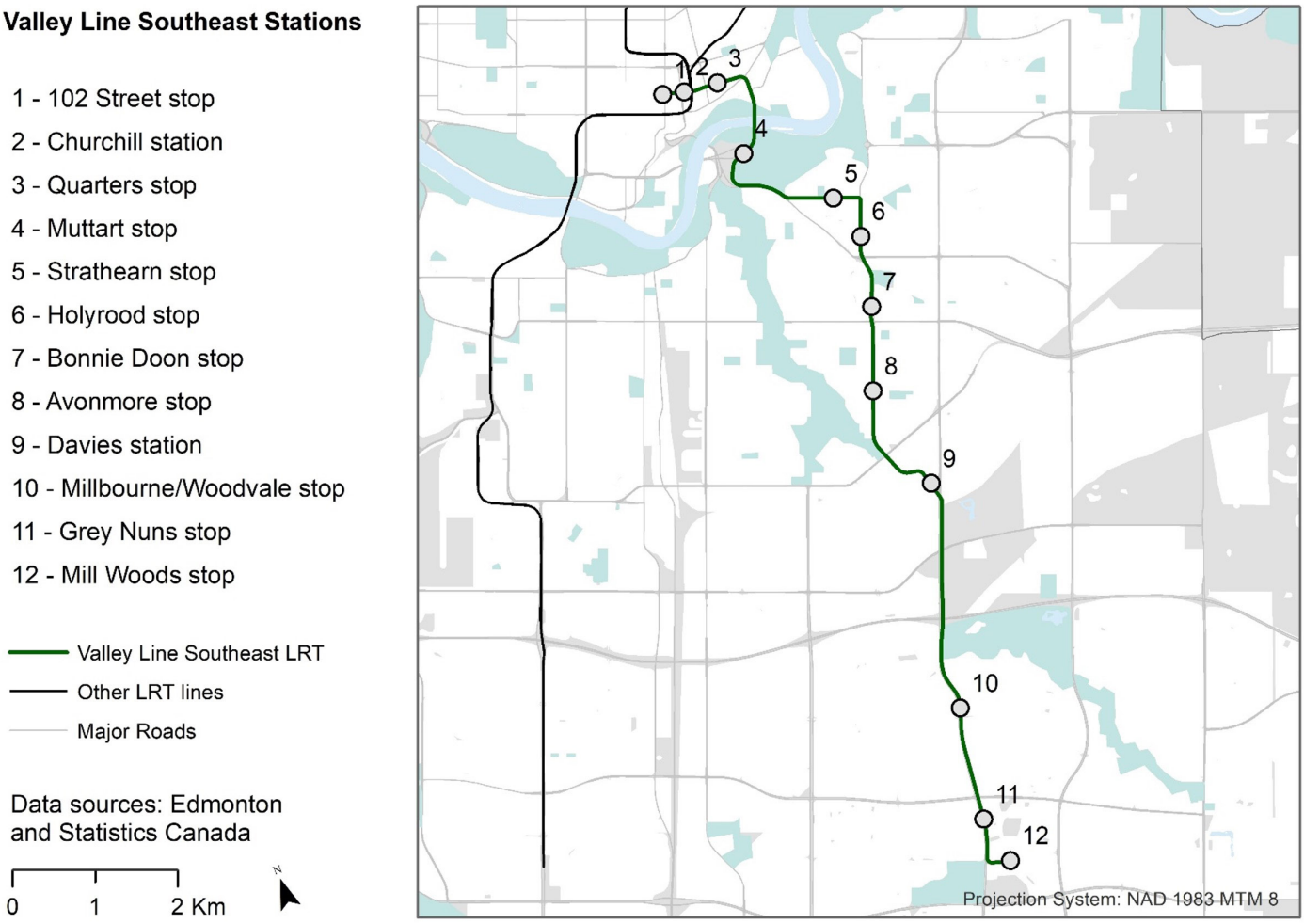

Figure 1.1 Valley Line Southeast and stations

2 Recruitment and Validation Methods

2.1 Recruitment

Recruitment of wave one (Fall 2023) participants was performed between October and November 2023, using various recruitment methods to ensure the representativeness of the sample. Recruitment was performed by the Mobilizing Justice team using both in-person and online strategies. In-person methods involved distributing flyers promoting the survey at future Valley Line Southeast station locations. Online recruitment focused on targeted paid advertisements on Facebook and Instagram within the Edmonton CMA, particularly for those within half a mile (around 800 meters) of Valley Line Southeast stations and neighborhoods serving as control areas. Additionally, Leger, a company specialized in public opinion and surveys in Canada, assisted in recruitment. They contacted respondents from their proprietary pool of potential survey respondents who lived in areas surrounding future Valley Line Southeast stations and the designated control areas.

For Wave 2 (Spring 2024), respondents from Wave 1 who have consented to participate in a follow-up survey were contacted. Since the Mobilizing Justice teams did not have access to emails addresses from Leger respondents recruited by Leger, a unique identifier (or "token") was assigned to each respondent and used to link responses across both waves.

Table 2.1 presents a summary of the pre-validation responses collected by Mobilizing Justice and Leger for Waves 1 and 2.

Table 2.1 Mobilizing Justice and Leger total recruitment (pre-validation)

Recruited by	Fall 2023	Spring 2024
Mobilizing Justice	1,052	517
Leger	260	260
Total	1,314	777

In keeping with best practices for survey recruitment, incentives were employed to encourage participation in the survey.

2.2 Data validation

A thorough data-cleaning procedure was applied to the two waves of the survey. The cleaning process was subdivided into five sequential steps, each constituted of a filter which reduced the number of responses. It is important to apply the same cleaning procedure to all waves of the survey to ensure consistency in the exclusion criteria of unreliable responses. Because of this, the same procedure was applied to the two waves of the survey.

What follows is a description of each step of the cleaning process, which were applied sequentially as presented here:

1. Incomplete answers: All surveys responses that were not answered to completion were dropped from the final sample.

2. Invalid home location: If the home location was either not provided, outside of the Edmonton CMA, or located in an invalid location (e.g., on water or on a bridge), the response was dropped.

3. Destination outside of CMA: If a destination location was outside of the Edmonton CMA, or located in an invalid location (e.g., on water or on a bridge), the response was dropped.

4. Missing trip information: If there was missing information regarding the respondent's last trip by transit (e.g., trip date or trip departure time), the response was dropped.

5. Invalid trip date: If the trip happened more than four months before the start of data collection (i.e., August 2023 for Wave 1 and December 2023 for Wave 2) or the trip was placed after the end of data collection, the response was dropped.

The results of the cleaning process are summarized in Table 2.2, showing how many observations were dropped in each of the steps. The resulting sample sizes for the panel responses by wave participation are presented in Figure 2.1.

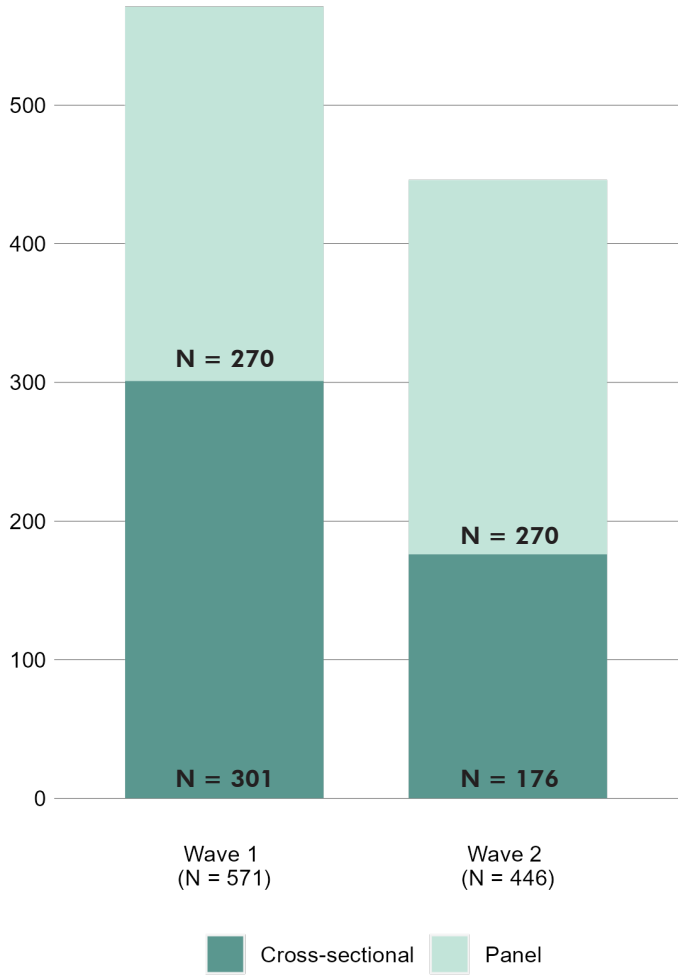

Figure 2.1 Number of valid observations for all panel responses

Table 2.2 Number of dropped and validated observations by filtering step

Step		Fall 2023		Spring 2024	
		Dropped	Remaining	Dropped	Remaining
0	Raw database	-	1314	-	777
1	Incomplete answers	22	1292	19	758
2	Invalid home location	20	1272	11	747
3	Invalid destination	143	1129	0	747
4	Missing trip information	331	798	32	715
5	Invalid trip date	227	571	269	446
Final Cleaned Database		**571**		**446**	

3 Sample Characteristics

3.1 Demographic characteristics

Across the two waves, the samples' demographic characteristics show a fair distribution among different genders, age groups, income brackets, visible-minority statuses, and employment types (Table 3.1) compared to the 2021 population census of the Edmonton CMA (Statistics Canada, 2023). Figure 3.1 shows the distribution of respondent home locations for the 2023 and 2024 waves across Edmonton's territory.

Table 3.1 Demographic characteristics for the four waves compared with Edmonton CMA census

		Wave 1 (2023)	Wave 2 (2024)	Edmonton CMA
Total N		571	446	1,417,905*
Gender	Man	44.66%	42.60%	49.77%
	Woman	49.39%	51.79%	50.23%
	Other	5.95%	5.61%	-
Age group	18 to 24	9.63%	7.62%	8.46%
	25 to 44	39.75%	41.03%	30.41%
	45 to 64	35.20%	33.86%	24.62%
	65 to 74	13.66%	14.80%	8.67%
	75 and over	1.75%	2.24%	5.76%
Income bracket (in CAD)	Under $30,000	16.46%	15.25%	9.32%
	$30,000 to $59,999	17.34%	15.47%	17.88%
	$60,000 to $89,999	18.39%	17.49%	19.10%
	$90,000 to $149,999	31.52%	35.20%	28.48%
	$150,000 and over	6.83%	10.99%	25.17%
Migrant status	Non-immigrant	75.31%	80.27%	72.13%
	Immigrant	24.69%	19.73%	27.85%
Visible minority	Visible minority	29.25%	24.89%	33.02%
	Not a visible minority	70.75%	75.11%	66.98%
Work status	Employed	71.63%	74.66%	59.97%
	Unemployed	7.71%	6.05%	8.09%
	Not in the workforce	15.76%	15.25%	31.94%
	Student	11.21%	12.56%	-

*Population of Edmonton in 2021

3.2 Sample spatial distribution

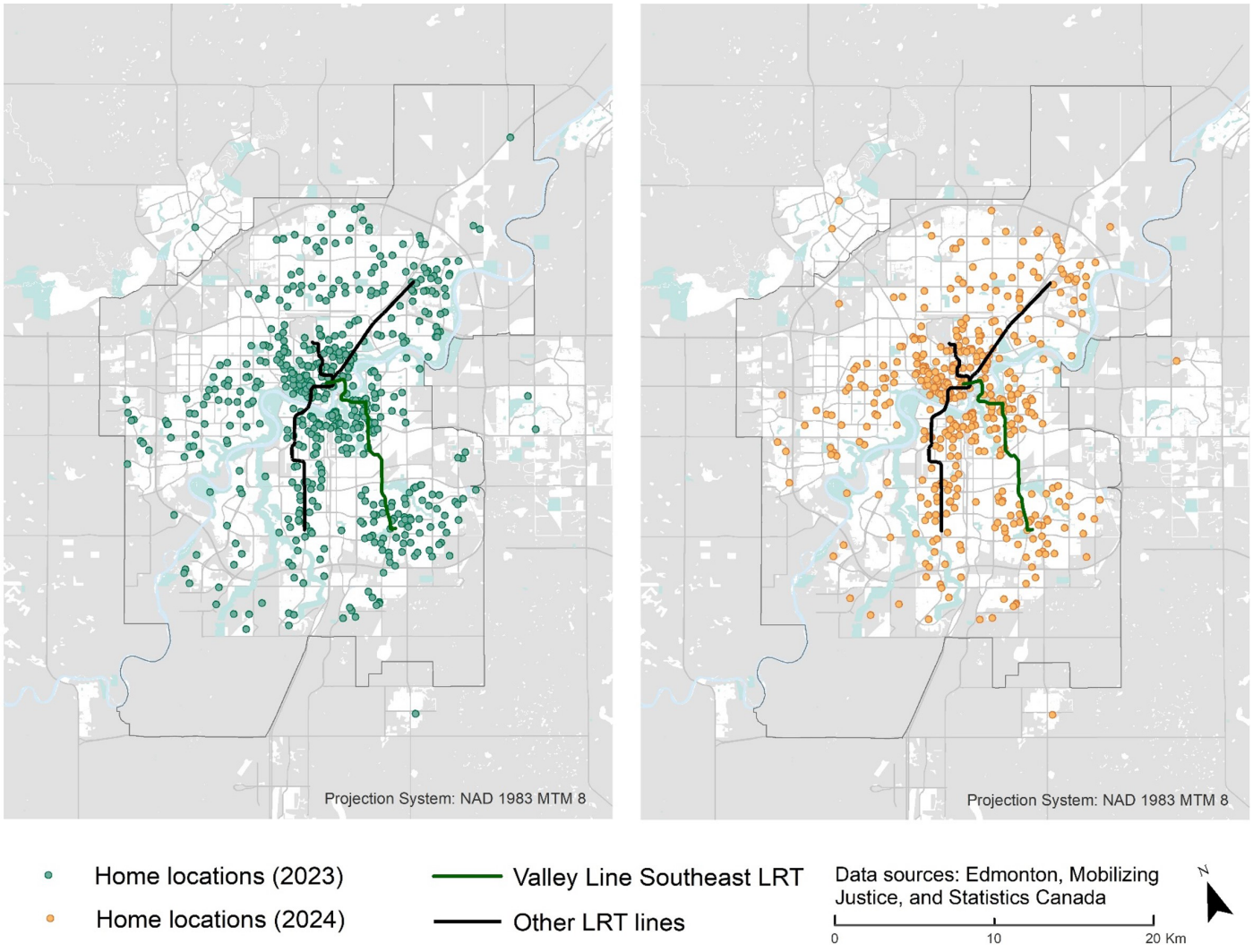

Figure 3.1 Home locations of respondents for the 2023 and 2024 waves of the survey

4 Perceptions of the Valley Line Southeast

4.1 City–wide impacts

In Fall 2023, before the opening of the line, respondents reported their perceptions on the potential impacts of the Valley Line Southeast. Figure 4.1 reports on expected impacts on Edmonton and on the environment. Most repondents had a positive view of the line indicating that it was well accepted in the region.

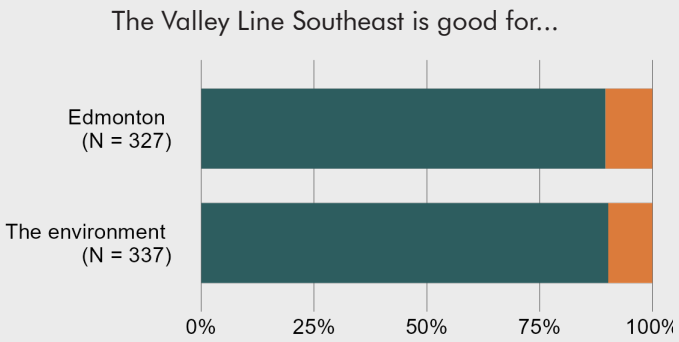

Figure 4.1 Cite-wide impacts

4.2 Neighborhood–level impacts

Figure 4.2 displays the expected impacts of the line in their neighborhood. Respondents are split based on how far they live from a Valley Line Southeast station (i.e., those closer or farther than 1 km). Over 80% of respondents in both groups expect the line to positively contribute to their neighborhood.

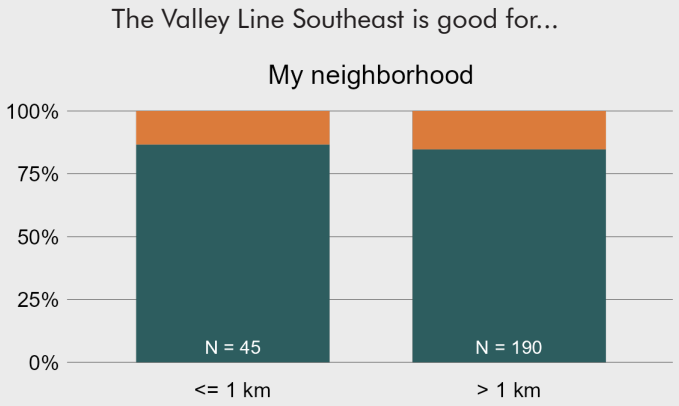

Figure 4.2 Neighborhood-level impacts

4.3 Gentrification concerns

Figure 4.3 reflects how concerned respondents are with whether they will be able to remain in their current neighborhoods after the completion of the LRT line due to rising housing costs. Results are shown by income group. The low-income group corresponds to households with annual income equal or below CAD 60,000. High-income households are those earning CAD 125,000 or more. Low-income respondents are the most concerned about being displaced due to rising costs.

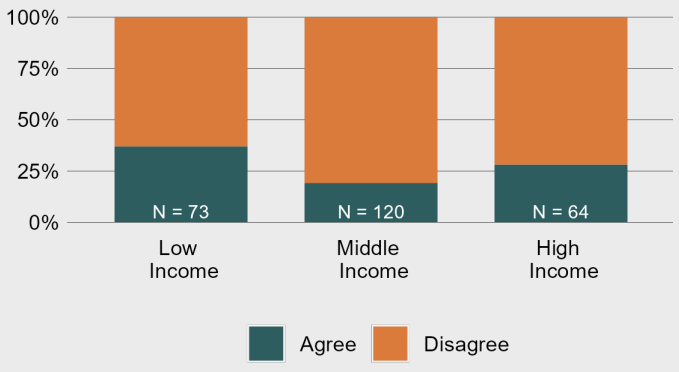

Figure 4.3 Gentrification concerns by income level


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5 Intention to Use

5.1 Intention to use the Valley Line Southeast

One month before the opening of the line, in October 2023, respondents were asked about their intentions to use the route. In Figure 5.1, we compare intentions between inhabitants living closer and farther than 1.0km from the nearest station, as this distance is an appropriate walking distance to access light rail stations. Proximity to a station increased the likelihood of future use. Most of those living in the vicinity of the project expect to use the line in the future. Over 30% of respondents in this group indicated a potential frequent use of the line (daily or more than once a week) once it became operational. Conversely, those living farther than 1 km from a station intended to use the line infrequently (65%) or not at all (22%).

5.2 Intention to use the Valley Line Southeast by purpose of travel

The survey identified specific purposes for which respondents planned to use the route, including work, healthcare, leisure, groceries, visiting family and friends, exercise, accompanying others, and school. We group respondents based on their potential frequency of use (i.e., frequently, those expecting to use the line more than once a week and infrequently, those who do not). Potential frequent users mostly intend to use the line to reach their work locations independent of how far they live from a station (Figure 5.2 & 5.3). Frequent riders living in the vicinity of stations also intend to use the line for other non-utilitarian purposes. Infrequent riders expect to use the line to reach mostly leisure and healthcare destinations.

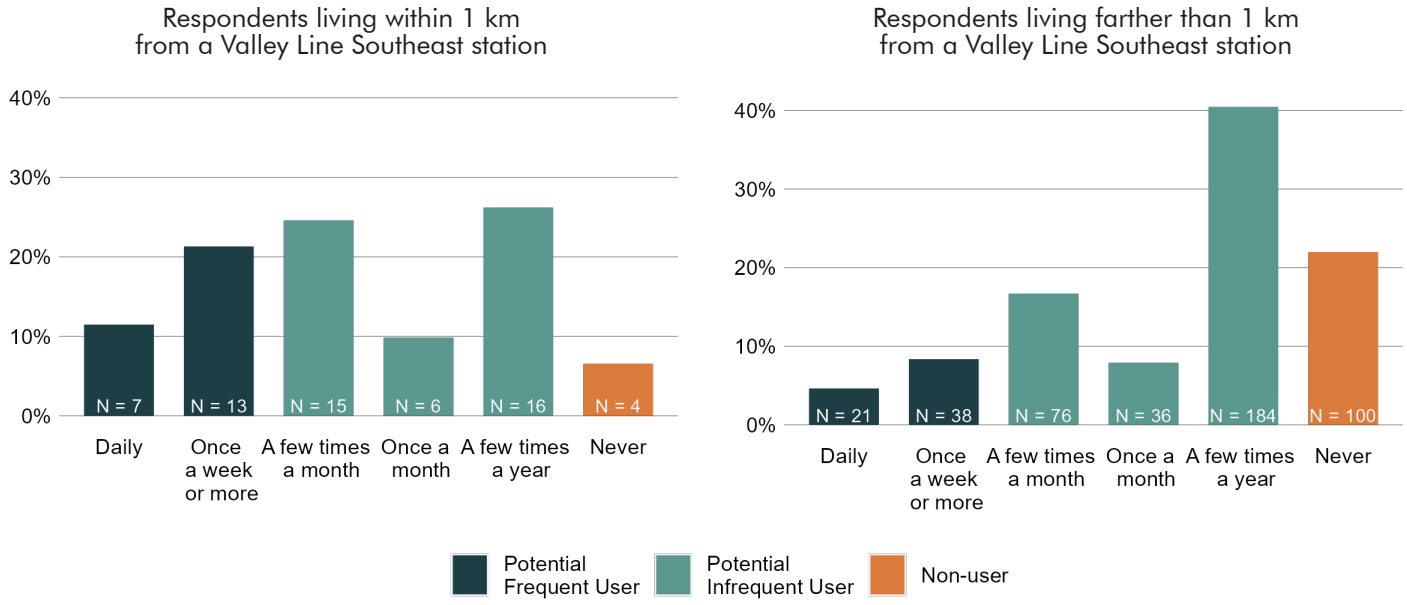


Figure 5.1 Intention to use the Valley Line Southeast

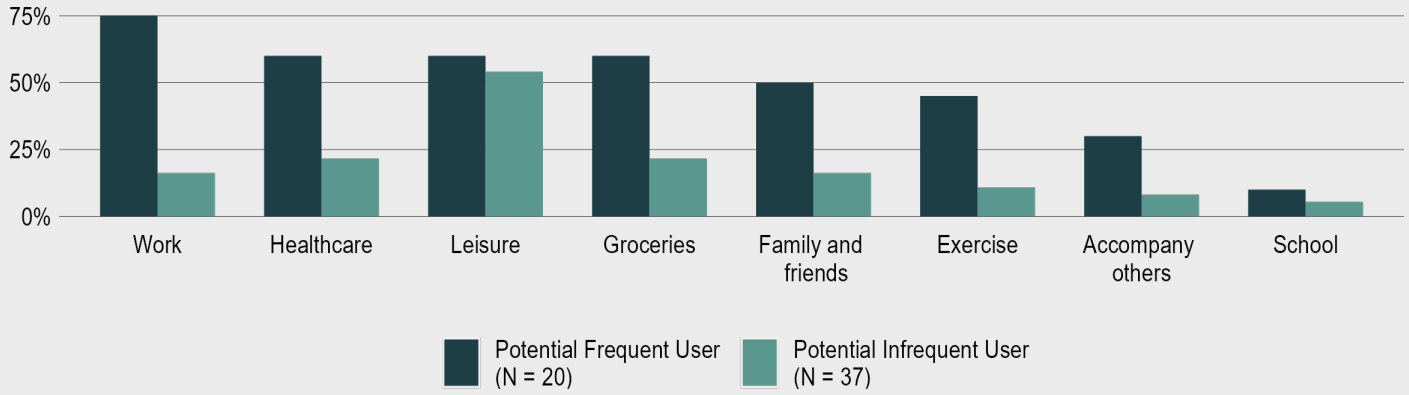


Figure 5.2 Intentions to use the Valley Line by purpose of travel for respondents living within 1.0km of a Valley Line station

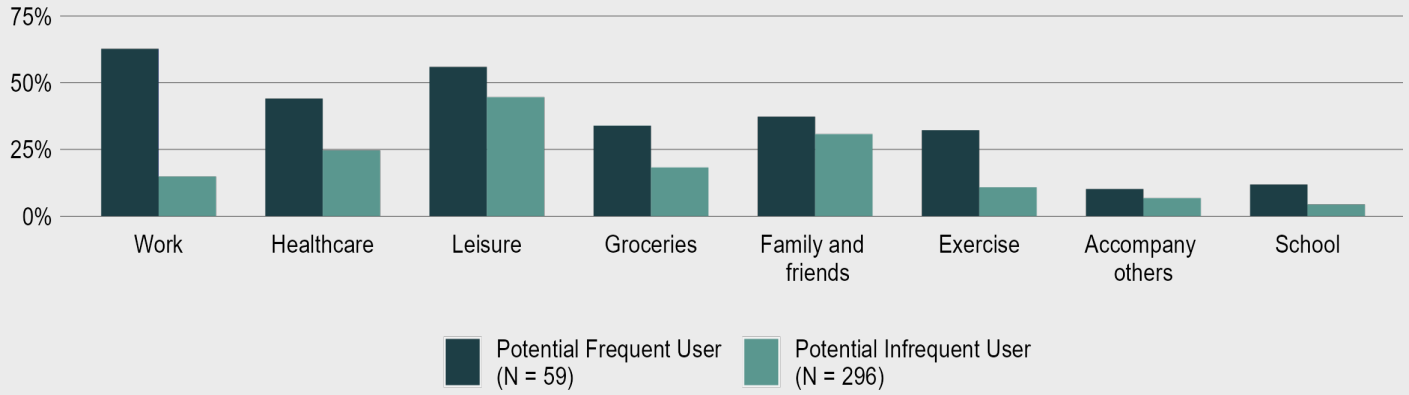


Figure 5.3 Intentions to use the Valley Line by purpose of travel for respondents living farther than 1.0km of a Valley Line station

5.3 Intention to use the Valley Line Southeast by income

Responses regarding intentions to use the route were also grouped by income. Low-income households are classified as those with an annual income below CAD 60k, high-income households are those exceeding CAD 125k, and middle-income households are those in between (Figure 5.4).

Low-income respondents expect to use the Valley Line the most. Close to 20% of the low-income group plan to use the line more than once a week. Conversely, middle- and high-income households intend to use the line infrequently (a few times a month or less). Middle-income households have the highest proportion of respondents not planning to use the Valley Line (22%) followed by high-income households (20%).

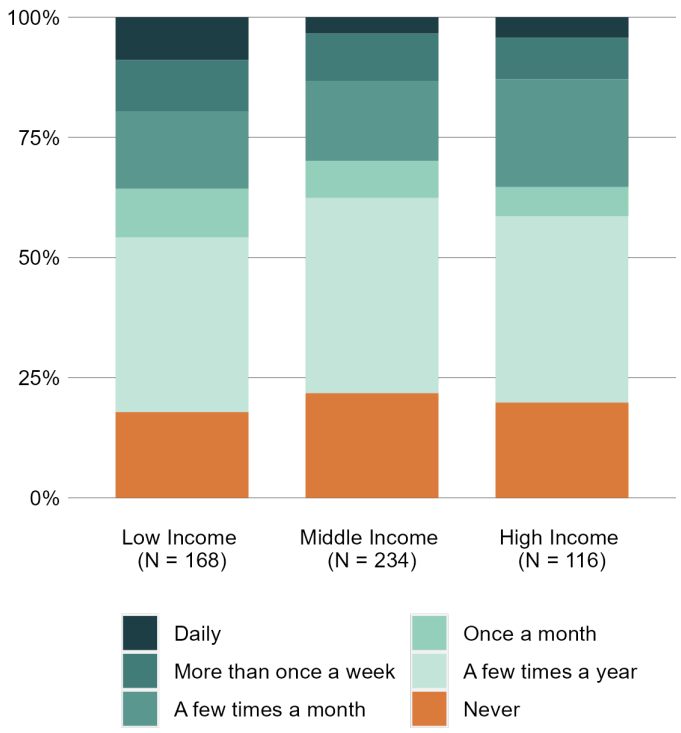


Figure 5.4 Intention to use the Valley Line Southeast by income

6 Use of the Valley Line Southeast

6.1 Who is using the Valley Line Southeast

Collected after the opening of the Southeast section of the Valley Line, the second wave of the survey assessed the impacts of the Valley Line's operation on travel behaviour, including an analysis of current ridership trends. Respondents were segmented by Valley Line usage: those who have used the line more than once, only once, and never (Figure 6.1). The largest number and concentration of participants who have used the Valley Line more than once reside near the operational portions of Edmonton's LRT system. In contrast, most respondents in the rest of the Greater Edmonton Area indicated never having used the line, with individuals who have tried it once scattered throughout the metropolitan area.

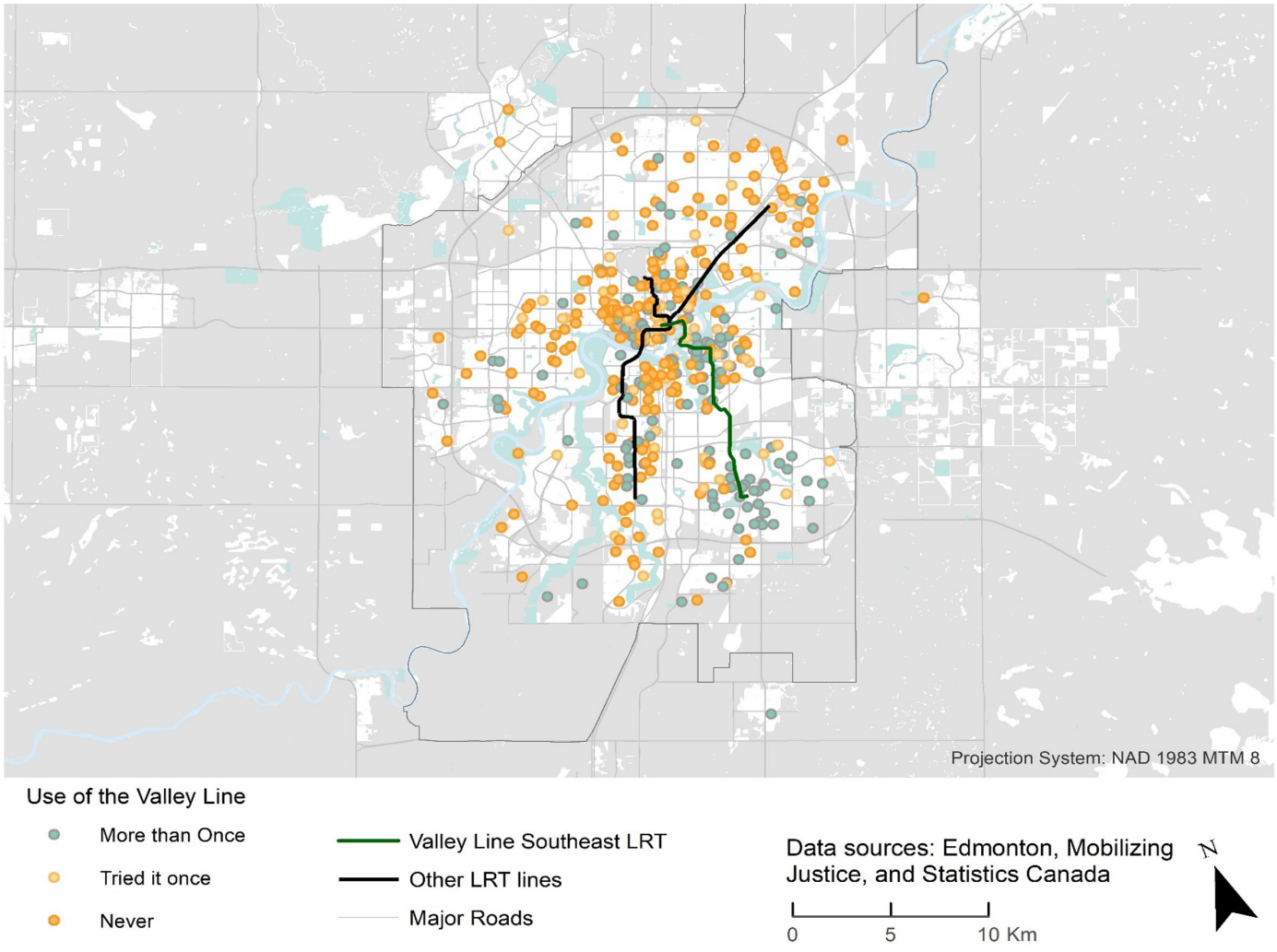


Figure 6.1 Distribution of the sample's home location by frequency of Valley Line Southeat use

A relevant aspect to explore regarding the current Valley Line ridership is who it is serving. Figure 6.2 displays the Valley Line user and non-user distribution by annual household income (i.e., low income, middle income, and high income households). A higher share of respondents from low-income and middle-income households is found among Valley Line users compared to non-users. Conversely, there is a larger concentration of high-income respondents among non-users.

Figure 6.3 illustrates behavioural dynamics among low-income and high-income panel respondents. 44% of low-income respondents who stated a positive intention to use the Valley Line did not use it, compared to 70% of high income respondents.

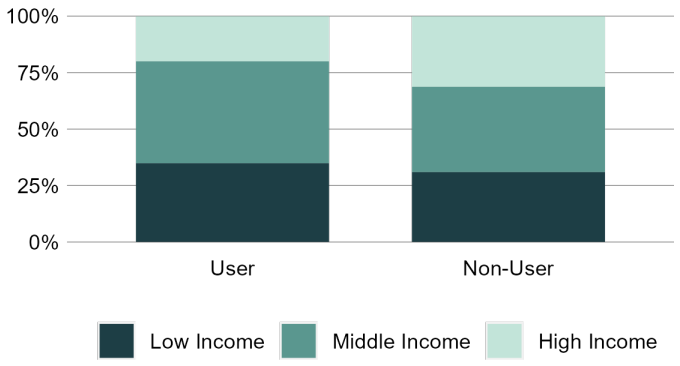


Figure 6.2 Valley Line Southeast use by income

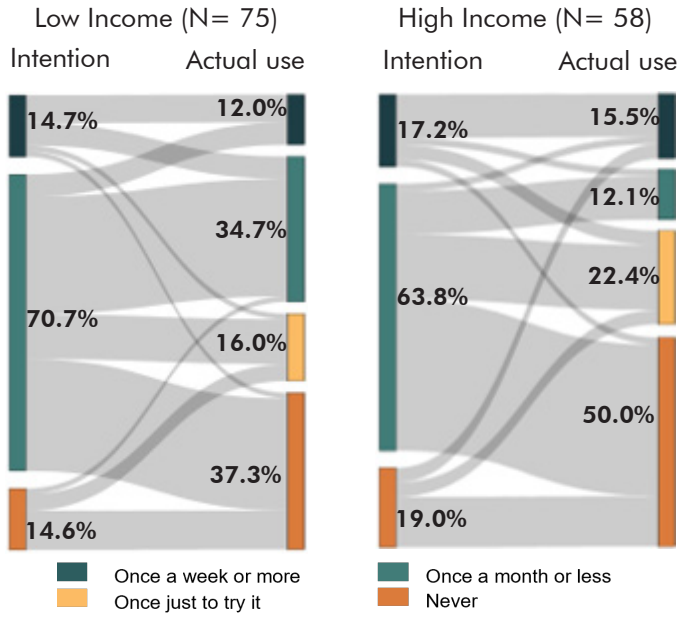


Figure 6.3 Intended and actual use

6.2 How often and what for

Data on the actual ridership of the Valley Line can give light to its effectiveness in servicing the nearby population. Participants were asked about their current Valley Line frequency of use for any purpose. Responses were segmented into two groups: those living within 1km from a station and those in the Rest of the Edmonton CMA, depending on participants' primary home location (Figure 6.4). Results show that a minority of participants living farther from Valley Line stations reported being regular (daily or multiple times a week) users of the line. Instead, most report never having used the line (51%). Contrastingly, 57% of those living in the vicinity of stations have used the line at least once a month, and only 12% had never used the Valley Line.

Participants were also asked about details about their last public transit trip, including their destination. Figure 6.5 gives insight into what the Valley Line is being used for. Most respondents used the line for work (42%) and leisure (25%) related trips, such as going to the movies, the theater and other cultural activities. To a lesser extent, respondents have used the line for healthcare purposes, including medical appointments and pharmacies (15%). Few people report using the Valley Line to exercise (i.e., going to a gym or a park for physical activity), visiting family and friends, to acess services, or to do grocery shopping. These results can give indications of how the line is being incorporated into people's routines.

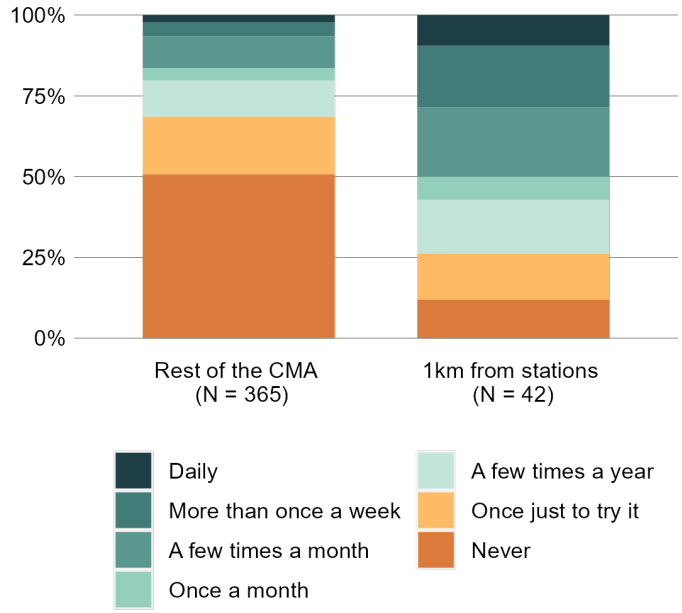


Figure 6.4 Frequency of Valley Line Southeast use among those in the vicinity of stations and in the rest of the Edmonton CMA (left)

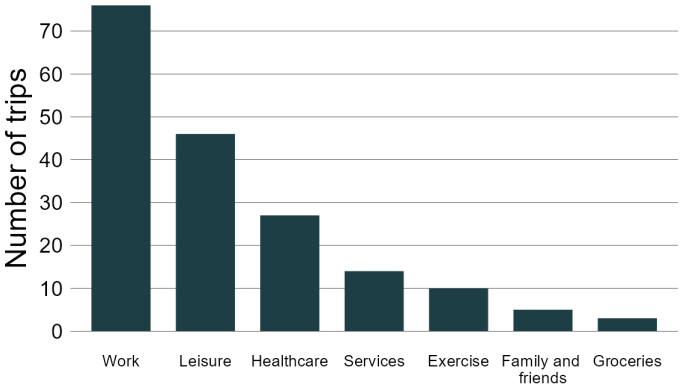


Figure 6.5 Purposes for which the Valley Line Southeast was used

6.3 Why are people using LRT lines

Understanding the reasons why respondents have selected a given mode can give insight into user preferences and behaviours. In Figure 6.6, respondents are split into three groups according to the transit modes they have used to complete their last trip, namely those who used only a LRT line (i.e., Metro Line, Capital Line, or Valley Line Southeast), those who used only a bus line, and those who used a combination of both.

For all three groups, affordability is an important factor driving their mode selection. Cost was especially significant among those who used a combination of bus and LRT lines (49%). This result reflects the relevance of providing affordable transit services especially to those who rely solely on transit to get around.

On this note, 41% of those using only bus services mention a lack of alternatives as an important factor in their decision. Conversely, only 6% of those who only used a LRT line in their last trip mentioned a lack of alternatives as a contributing factor.

LRT users in the region seem to be benefiting from travel time savings. A significant share of those using only a LRT line to complete their trip (28%) mentioned reduced travel time as a factor int their choice. Comparatively, fewer respondents using a combination of bus and LRT lines (17%) or only a bus line (10%) cited travel time as a reason for their mode selection. This finding points to the operational benefits of dedicated transit corridors to users.

Those using LRT services also brought up comfort as an element in their decision more often than bus users. Few respondents across the three groups refered to being productive or other modes not serving their destinations as a reason.

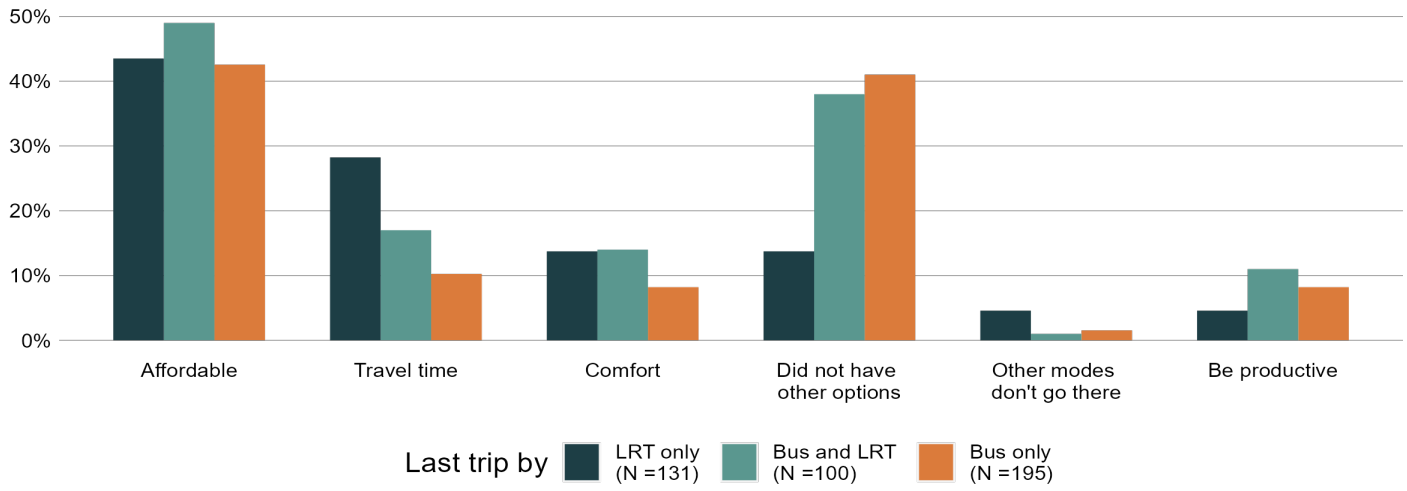


Figure 6.6 Main reasons for mode selection on the respondent's last public transit trip

7 Travel Satisfaction

7.1 Experiences with the Valley Line Southeast

In Spring 2024, following the opening of the Valley Line LRT, respondents were asked about their experiences in their last public transit trip. Figure 7.1 provides an overview of overall satisfaction with the bus and LRT segments of their trip. The results reveal comparable levels of satisfaction between users of the two modes. Close to 70% of bus and LRT users stated being satisfied with their overall experience. These findings indicate comparable user experiences across different transit modes in the region.

Figure 7.2 illustrates overall satisfaction with the LRT portion of the respondent's trip segmented by travel time. Travel time appears to have a significant effect on user experience. Respondents whose trips lasted less than 20 minutes reported higher levels of satisfaction, with approximately 80% expressing satisfaction with their trip. Conversely, only 68% of those with trips over 45 minutes expressed being satisfied. Thus, reflecting the influence of proximity to destinations on user experience.

Trip purpose is also likely to have a notable effect on user experience. In Figure 7.3, the overall satisfaction with the LRT portion of the respondent's last trip is displayed according to its purpose. Trips completed for utilitarian purposes, such as commuting, exhibited lower satisfaction levels compared to trips with a leisure destination. Specifically, 63% of commuters were satisfied with their LRT trips. Comparatively, 67% of those going to a healthcare facility, and 72% of those going to a leisure destination expressed being satisfied.

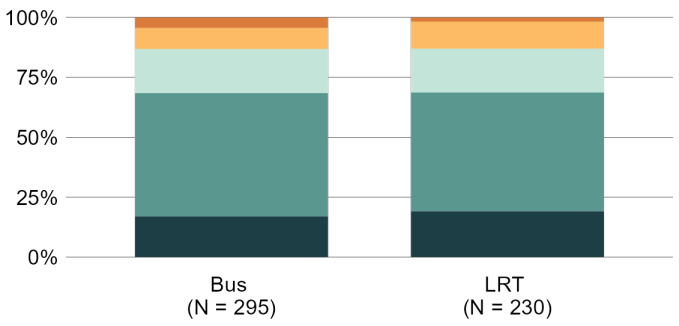


Figure 7.1 Overall satisfaction between bus and LRT users

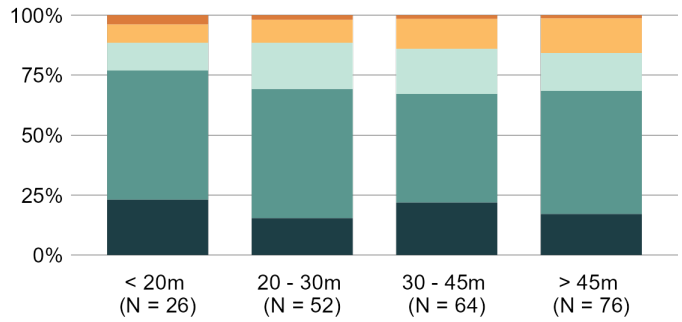


Figure 7.2 Overall LRT satisfaction by travel time

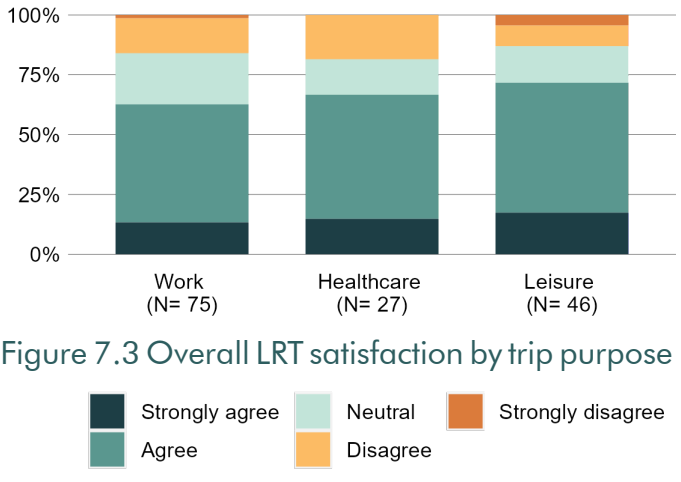


Figure 7.3 Overall LRT satisfaction by trip purpose

7.2 Travel time components of the trip

Respondents were asked to rate their satisfaction with three travel time components of the LRT segment of their last trip: waiting time, the time taken to reach their LRT stop, and on-board travel time. Overall, LRT users expressed high levels of satisfaction with these three components. They were particularly satisfied with on-board travel time, with most reporting a position experience. Additionally, about 80% of respondents were satisfied with the time taken to reach their LRT stop and their waiting time. These findings underscore the advantages of reliable, high frequency service to users (Figure 7.4).

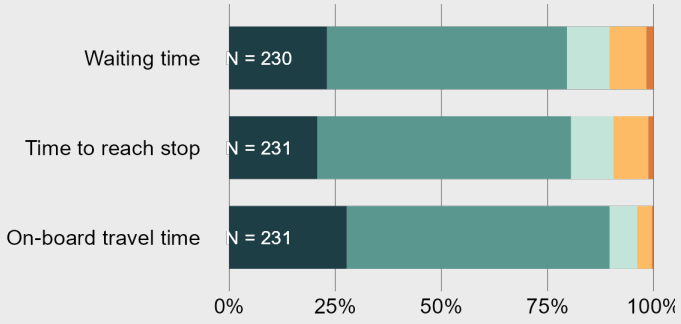


Figure 7.4 LRT satisfaction by travel time component

7.3 Cost

Figure 7.5 displays the agreement of bus and LRT users with the reasonableness of the cost for each transit mode. The data indicates greater satisfaction among LRT users compared to bus users. Approximately, 80% of LRT users agreed that costs were reasonable while 64% of bus users did so. The findings suggest that LRT services are perceived with a higher value. This may be attributed to the higher frequencies and reliability associated with LRT systems, providing more convenient and satisfying experiences.

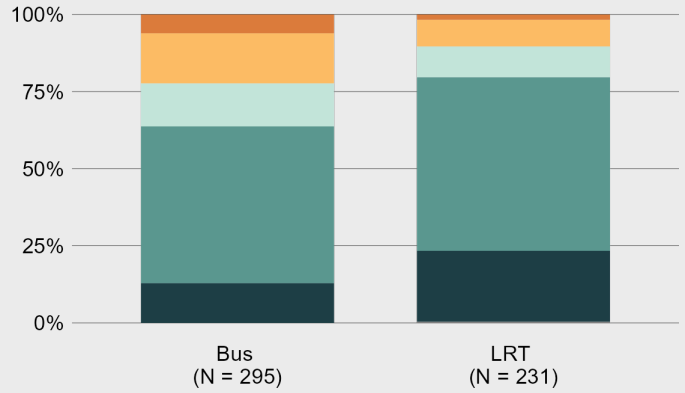


Figure 7.5 Satisfaction with cost between bus and LRT users

7.4 Comfort

Figure 7.6 highlights satisfaction levels of bus and LRT users with on-board comfort. Bus users reported slightly higher satisfaction compared to LRT users, with 67% of bus users agreeing to feeling comfortable during their journey, as opposed to 62% of LRT users. The disparity in comfort levels might be attributed to factors such as crowding levels, in-vehicle temperature, and noise levels.

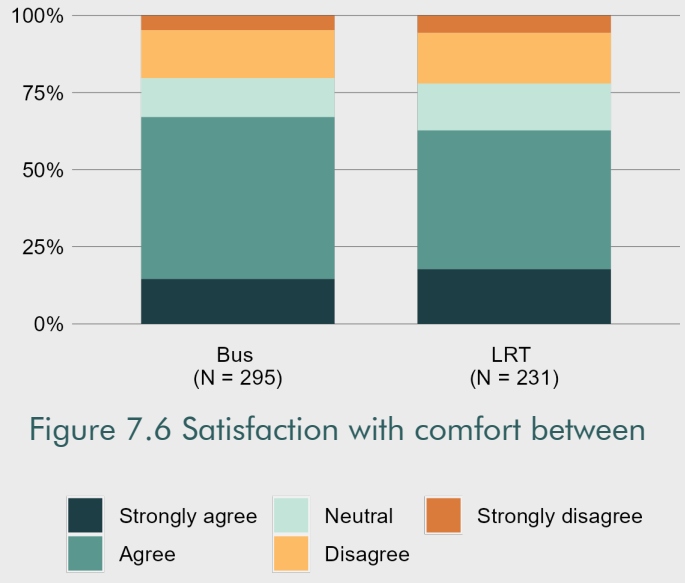


Figure 7.6 Satisfaction with comfort between


2022
To Mill Woods
Proof of Payment Required Upon Entering Trains
City of Edmonton Bylaw Fine for Violation
101 Street
CAUTION

7.5 Perceptions of safety

Respondents rated their satisfaction with various aspects of safety, including crime, harassment and unwanted attention, and racism and discrimination. Figure 7.7 reveals that LRT users exhibit higher dissatisfaction levels with safety-related concerns compared to other service atributes, such as travel time, comfort, and cost. Approximately, 35% of LRT users reported feeling unsafe from crime, and 31% expressed concerns about harassment and unwanted attention. However, perceptions of safety concerning racism and discrimination were more positive, with 63% of LRT users feeling safe from these issues during their trip. It is important to note that most respondents in the sample are not visible minorities, which may influence the results.

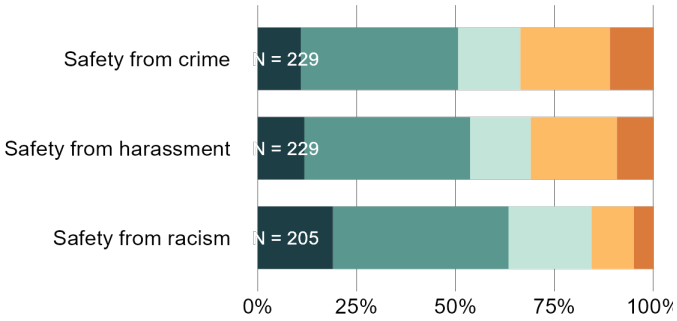


Figure 7.7 LRT satisfaction by perceptions of

7.6 Safety from harassment by gender

Figure 7.8 illustrates satisfaction with safety from harassment and unwanted attention among LRT users split by gender. Women show lower satisfaction levels compared to men. Specifically, 33% of women report feeling unsafe from these issues during their trip compared to 25% of men. These findings highlight a disparity of experiences indicating that women are more likely to experience discomfort related to harassment while using the LRT network.

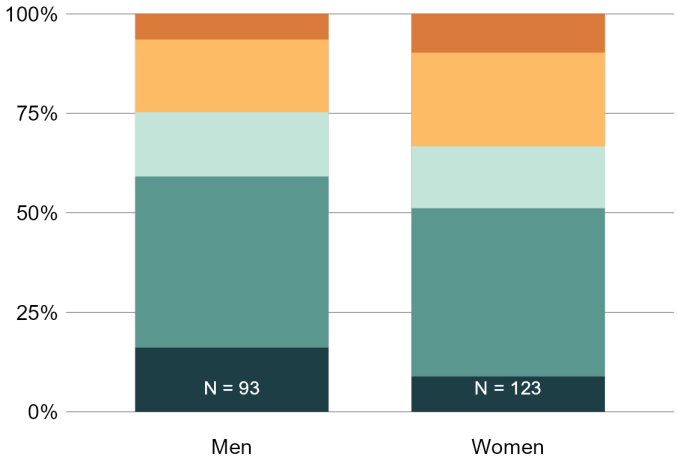


Figure 7.8 Safety from harassment by gender

7.7 Safety from racism by minority status

Similarly, visible minorities are less likely to feel safe from racism and discrimination in the LRT network compared to non-minorities. Figure 7.9 shows that 23% of visible minority respondents felt unsafe from racism and discrimination during their trip compared to 13% of non-minority ones highlighting that certain groups are more vulnerable to these experiences.

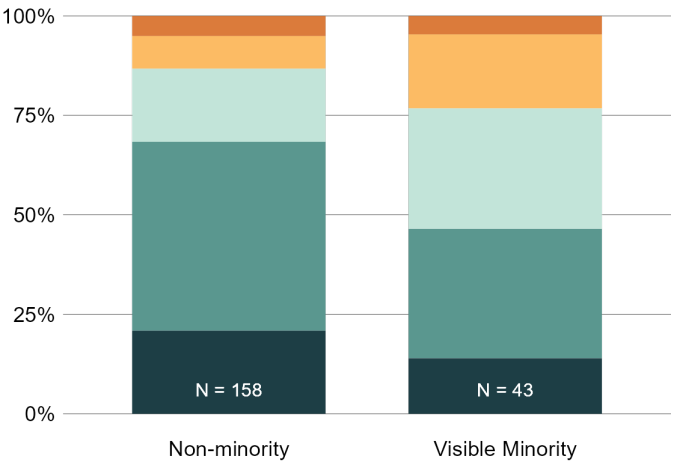
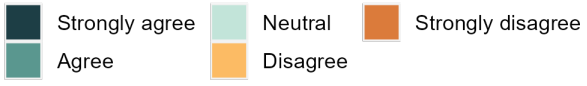


Figure 7.9 Safety from racism by minority status



8 Conclusion

The Valley Line Southeast represents the first phase in developing an integrated rapid transit network for the Edmonton region. This project provides an opportunity to assess how people's perceptions and behaviours changed before and after its implementation, particularly for equity-seeking groups living around the route who may be disproportionately affected. This report introduced the results of a two-wave survey data collection process conducted between Fall 2023 and Spring 2024. Overall, the samples from wave 1 (N = 571) and wave 2 (N = 446) were representative of the target population, though slightly underrepresenting low-income populations.

Most respondents expressed a positive outlook on the potential impact of the Valley Line on the city and their neighborhood. However, among low-income respondents, there was notable concern regarding possible gentrification effects that could arise from the line's implementation. Specifically, these individuals worried about their ability to continue residing in their current neighborhoods as a result of rising costs. This highlights the importance of monitoring these trends over time to better understand the long-term social and economic effects on vulnerable populations.

The panel data enabled insightful comparisons, especially regarding the use of the Valley Line. A significant share of users come from low- and middle-income groups. Notably, 56% of low-income respondents who expressed a positive intention to use the Valley Line prior to its opening have done so, a significant higher share compared to high-income respondents (30%). Most users live within 1.0 km from stations and have used the line for both work and leisure. The analyses in this report also explore additional dimensions of the project, including perceptions, travel patterns, and travel satisfaction.

We hope that the insights gained from this study, in combination with findings from future research, will serve as a valuable resource for a wide range of transportation and urban planning initiatives, particularly the expansion of LRT networks. Ultimately, we aim to contribute to the development of more resilient, inclusive, and equitable urban environments by informing evidence-based decision-making and supporting innovative policy interventions across Canada.


87 Street East
2017
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References

1. Robb, J. & Marshall, M, Convenient, safe, comfortable: First impressions from Valley Line Southeast commuters. 2023, CTV News Edmonton. Available at: https://tinyurl.com/4ymvvt58

2. EllisDon. Edmonton Valley Line LRT. 2024. Available at: https://www.ellisdon.com/projects/edmonton-valley-line-lrt

3. Edmonton. Valley Line LRT booklet: Stage 1 between Downtown and Mill Woods. 2016. City of Edmonton, Alberta, Canada.

4. Smith, M. A brief history of the twists, turns and bumps in the road to build the southeast Valley Line LRT. 2022, Edmonton Journal. Available at: https://tinyurl.com/6bd6yvyn

5. Editorial. Edmonton's Valley Line Southeast LRT set to open Nov. 4: The 13-kilometre line will link Mill Woods to downtown. 2023. CTV News Edmonton. Available at: https://tinyurl.com/ja8vevcy

6. Riebe, N. P3 model not responsible for latest Valley Line LRT issues, Edmonton city councillor says: Mayor wants review of P3 model, criticized for lack of transparency. 2022. CBC News Edmonton. Available at: https://tinyurl.com/mjb3f5v5

7. Edmonton. Valley Line - West. 2024. City of Edmonton, Alberta, Canada. Available at: https://tinyurl.com/2zkr7cb9

8. Edmonton. The Way We Move - Transportation Master Plan. 2009. City of Edmonton, Alberta, Canada. Available at: https://tinyurl.com/3p9fcuu9

9. Edmonton. Transforming Edmonton - Bringing our city vision ot life. 2012. City of Edmonton, Alberta, Canada. Available at: https://tinyurl.com/mwsdkphk

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