

Edmonton Transit Service



### **Executive Summary** 2023 Rider Research Program





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#### **Background**

Edmonton Transit Service (ETS) plays a crucial role in the daily lives of Edmonton residents, providing accessible and reliable public transit options across the city. The ETS Rider Research Program was established to help ETS understand the evolving needs of its riders and non-riders as part of its commitment to continuous improvement.

This program involves the systematic collection and analysis of feedback from transit riders, offering valuable insights into their experiences and identifying areas for service enhancement. The program combines both quantitative and qualitative research to capture a comprehensive view of rider satisfaction and overall transit experience.

In addition to surveying current users of conventional transit services (buses, LRT, and On Demand Transit), ETS also conducts research with non-riders and riders of the Dedicated Accessible Transit Service (DATS). This holistic approach ensures that ETS can address the diverse needs of the entire community, from regular commuters to those with specialized transit reguirements. ETS commissioned Pivotal Research Inc., an independent third-party organization, to conduct the research.

The findings from the research program inform strategic decisions that support a thriving, accessible public transit system and help ETS enhance its services, improve rider satisfaction, and ultimately, make public transit a more attractive option for all Edmontonians.













#### **Objectives of the Research Program**



**Ridership Profile:** Understand the demographic makeup of ETS ridership, including factors that may create different experiences or needs based on gender, race, ethnicity, age, ability, and other intersecting identities.



Ridership Trends: Explore ridership trends such as travel times, travel purpose, travel frequencies, and motivations for using ETS.



Overall Satisfaction with ETS: Evaluate overall satisfaction with ETS services, as well as satisfaction with each stage of the transit journey (pre-trip, on-trip and post-trip), among riders of both conventional transit and DATS.



Rider Loyalty: Gauge factors affecting customer loyalty and determine issues of importance to riders and overall service provision priorities.



Non-Rider Perceptions: Determine reasons that resulted in loss of ridership and ways to encourage the return of current ETS non-riders.



**Real-time Insights:** Examine in-the-moment experiences of transit riders pertaining to specific transit aspects.















#### **Data Collection Methodology**

#### **Conventional Riders**





n=250 riders/month (3000 responses yearly)

Monthly data collection though online panel surveys

One qualitative research study involving 33 participants

- Monthly Surveys: Feedback was collected monthly from riders of ETS's conventional transit services, including buses, Light Rail Transit (LRT), and On Demand Transit. The survey targeted residents of the Edmonton area who used ETS services in the three months prior to completing the survey.
- Deep-Dive Qualitative Research: In addition to the monthly surveys, ETS conducted qualitative mobile ethnography research to gain a deeper understanding of rider experiences.

#### **DATS Riders**



n=250 DATS riders/year

Annual data collection online and via telephone

Annual Survey with DATS (Dedicated Accessible Transit Service): Research was conducted with riders of DATS, ETS's transit service for individuals who cannot use regular transit because of a physical and/or cognitive disability.

#### **Non-Riders**



n=400 non-riders/year

Annual data collection through online panel surveys

One qualitative research study involving 21 participants

- Survey with Non-Riders: ETS also conducted an annual survey with those who have not used transit or have used transit very infrequently in the past year prior to completing the survey to understand why some chose not to access the service and to identify ways to encourage future usage.
- Follow-up Qualitative Research: A qualitative mobile ethnography study was conducted with non-riders to further understand findings derived from the quantitative survey.













## Conventional Riders











#### **Conventional Riders Monthly Survey**

More than 3,000 surveys were completed in 2023. Monthly, quarterly and annual quotas are calibrated to ensure that the final sample of respondents and corresponding demographics is inclusive of the various demographics within the Edmonton area. Data was collected using an online panel\* to understand riders':

- Usage and perceptions of ETS
- Satisfaction with ETS on various aspects along the transit journey including: first stop, on-board and transfer experience as well as fare, trip duration, reliability, and safety and security
- Overall transit experience, value for money, and likelihood to recommend ETS
- **Demographics**

Satisfaction metrics shown throughout this section are based on a "Top 3-Box" calculation which refers to the sum of percentage of respondents who chose one of the top three options (e.g., the highest three ratings) on a 7-point satisfaction scale.

#### **Conventional Rider Trip Characteristics**

- Riders rely on ETS for various reasons, most notable were that ETS eliminates the need to pay for parking and equally that ETS is the only means of transportation (24%).
- A majority of riders tend to walk to their first stop/station before riding on ETS.
- A quarter of riders indicated the main purpose of their most recent trip on ETS was to go to work / come from work.

#### **Key Satisfaction Metrics**



#### Overall Transit Experience: 73%\*\* (82% in 2022)

On a scale of 1-7 where 1 is extremely dissatisfied and 7 is extremely satisfied, how satisfied are you with your overall transit experience?



#### Satisfaction With Value For Money: 67%\*\* (77% in 2022)

On a scale of 1-7 where 1 is extremely dissatisfied and 7 is extremely satisfied, how satisfied are you with your overall transit experience?

<sup>\*\*</sup> Statistical testing was performed to identify whether the observed differences in scores are statistically significant and are not due to random variation within the samples. Scores marked with a double asterisk (\*\*) are significantly lower than 2022 scores.









<sup>\*</sup>Transit riders aged 15+ residing in Edmonton CMA were randomly selected from an online panel of pre-recruited individuals who have agreed to participate in surveys. As this is a non-probability sampling methodology, a margin of error cannot be reported. For comparison purposes, a probability sample of this size has an estimated margin of error (which measures sampling variability) of +/- 1.8%, 19 times out of 20.





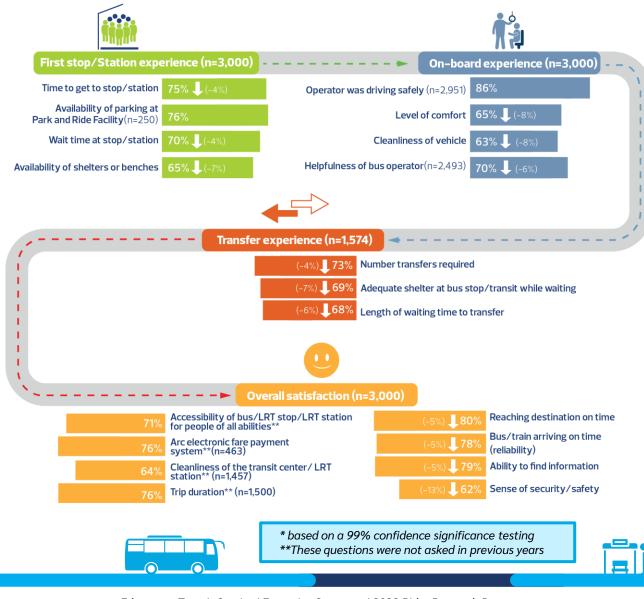
#### Satisfaction Along the Transit Journey

This infographic summarizes riders' satisfaction scores in 2023 along the transit journey where respondents were asked: "On a scale of 1 to 7 where 1 is extremely dissatisfied and 7 is extremely satisfied, how satisfied are you with ETS" along various aspects of the journey.

An upward or downward arrow is shown when the difference from 2022 is statistically significant, along with the corresponding percentage point increase or decrease in brackets. If no arrow appears, the difference from 2022 is not statistically significant.\*

In 2023, riders were least satisfied with sense of safety (62%) and cleanliness of the vehicle (63%), while they were more most satisfied with the safe driving of operators (86%) and on-time arrivals at their destinations (80%).

Generally, in 2023, riders were less satisfied with ETS on many aspects of their transit journey, compared to 2022, as depicted in the chart below.





#### **Overall Satisfaction with ETS Among Various Groups**

The survey identified differences in satisfaction across various demographic groups.

- Older adults (over 55), for instance, were among the most satisfied riders, with 82% being satisfied with their overall transit experience.
- In contrast, younger adults, particularly those aged 15-24, reported a lower satisfaction rate of 58%.
- Three-quarters (75%) of all-purpose riders, who used transit for various reasons beyond just commuting to work or school, were satisfied. This is followed by occasional riders at 74% and commuters who primarily use transit for work/school at 71%.















#### **Key Findings from Conventional Rider Monthly Survey**

While in general some satisfaction metrics witnessed a decrease in 2023, about three-quarters or 73% of riders reported being satisfied with the service, appreciating the convenience and accessibility of public transit. However, beneath this overall satisfaction, specific areas called for attention.



**Safety** emerged as a key factor in overall satisfaction but also received the lowest satisfaction rating. Only 62% of respondents reported feeling safe during their transit journey.

Riders' sense of safety was influenced the most by their experiences as they waited to board their first transit vehicle (bus or LRT) and while on-board.



**Cleanliness** was also a significant driver of overall satisfaction on transit. About two-thirds of riders were satisfied with the cleanliness of vehicles (63%) and transit centres/stations (64%).



**Comfort** on board ETS vehicles was another area where riders had mixed feelings. Overall, about two-thirds (65%) of respondents expressed satisfaction with comfort levels.

Riders defined comfort in terms of vehicle cleanliness, safety and security measures, and seating quality, including legroom and seat comfort.



**Reliability** is always at the heart of any transit system, and for ETS, it was no different. With 78% of riders satisfied with reliability, some commented on delays and inconsistencies and emphasized the need to continue improving reliability.



**Affordability** remained a crucial factor in riders' decision to use public transit. Two-thirds of respondents felt that ETS provided good value for money, considering the cost of other transportation options.















#### **Understanding Riders' Experience with Trip-Chaining**

In 2023, data from the Conventional Rider Survey showed that 69% of riders trip chaining. Trip chaining means combining different purposes into one journey, such as taking transit from work, stopping to pick up groceries, and then continuing home on transit. To understand ETS riders' experiences with trip chaining, 33 transit riders participated in an online bulletin board study. The data was collected from November 16 to 25, 2023.

Feedback and recommendations from the study helped ETS identify the experiences of trip chainers and uncover what factors impact their decision-making process regarding trip chains.

The qualitative study comprised of two groups: individuals with a history of trip chaining and those who rarely or had never engaged in trip chaining previously.

Participants were asked to complete one trip with at least two destinations in their trip chain journey. They completed six activities documenting their in-the-moment trip experiences and post-trip reflections, using videos, screen recordings, pictures, and text. They also engaged in peer discussions on trip chaining improvements, with research moderators providing support and seeking clarification when needed.

#### **Key Learnings from Trip-Chaining Study**

Participants identified key elements that influence trip chaining and suggested improvements to encourage both frequent and new trip-chainers.

**Trip planning applications were essential**, with participants heavily relying on Google Maps and the Transit App to plan trips, make real-time adjustments, and navigate en route. Many emphasized the necessity of a smartphone with internet access to support successful trip chaining. However, discrepancies between actual transit arrival times and those reported in apps, particularly unreported delays, caused frustration and disrupted trip planning.

**Key Takeaway**: Even the most experienced riders rely on mobile apps, highlighting the need for ETS to enhance trip-planning technology. Suggested improvements include:

- · Enabling multiple-trip planning for seamless itinerary management
- Optimizing real-time schedule accuracy, including bus stop closures and live updates
- · Providing notifications for upcoming transit arrivals
- · Embedding live maps with mobile apps for real-time vehicle tracking

**Convenience played a central role** in how participants planned and adjusted their trips. Riders strategically organized their routes to maximize efficiency, often saving the shortest stop for last before heading home. Their ability to adapt to schedule changes allowed them to seamlessly adjust itineraries while still completing their planned activities.

**Key Takeaway:** Trip-chainers are highly experienced transit riders. Their strategies and experiences could be shared more widely to inform transit planning improvements and service enhancements



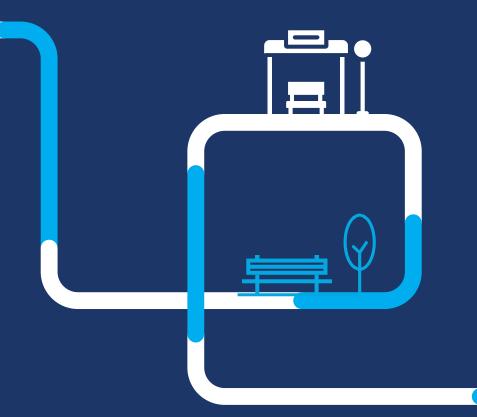








## Dedicated Accessible Transit Service (DATS)









#### **DATS Annual Survey Riders**

An annual survey with DATS riders/caregivers was conducted to gain a comprehensive understanding of their experiences along the travel journey. A random sample of DATS riders and caregivers was selected to participate in the survey and was administered online and via telephone between September 26 and November 7, 2023. In total, 279 respondents participated in the survey; 207 were riders who had used DATS in the prior 12 months and 72 were caregivers who had who booked and/or accompanied riders on their trips.

Respondents were asked about:

- Usage and perceptions of DATS
- Booking of DATS trips
- Satisfaction with DATS on 17 aspects along the transit journey
- Overall transit experience and likelihood to recommend ETS
- **Demographics**

The results of the study were accurate with a margin of error of +/- 5.9%, 19 times out of 20.

Satisfaction metrics shown throughout this section are based on "Top 3-Box" calculation which refers to the sum of percentage of respondents who chose one of the top three options (e.g., the highest three ratings) on a 7-point satisfaction scale.

#### **DATS Riders Trip Characteristics**

DATS was the primary mode of transportation for 70% of respondents, with more than half perceiving it as safe (56%), convenient (56%), and affordable (55%).

DATS riders rely on the service for a variety of reasons with medical appointments being the most frequently mentioned purpose of their most recent trip for trips (43%).

#### **Overall Satisfaction Metrics**



#### Overall Transit Experience: 93% (94% in 2022)

On a scale of 1 to 7 where 1 is extremely dissatissfied and 7 is extremely satisfied, how satisfued are you with your overall transit exoerience?













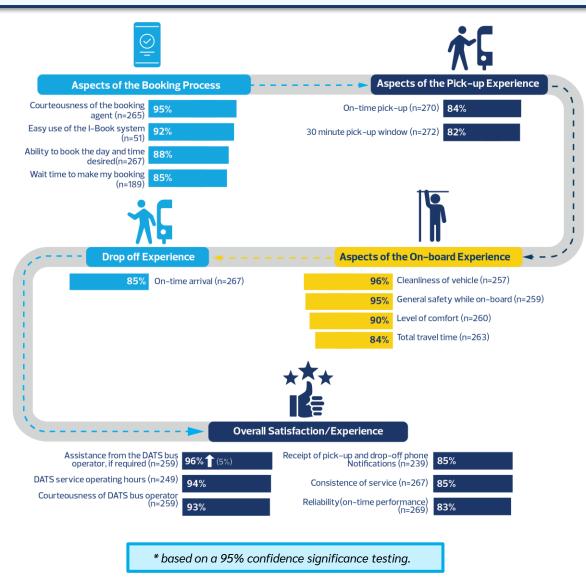


#### Satisfaction Along the Transit Journey (DATS)

This infographic summarizes riders' satisfaction scores in 2023 along the transit journey where respondents were asked: On a scale of 1 to 7 where 1 is extremely dissatisfied and 7 is extremely satisfied, how satisfied are you with DATS.

An upward or downward arrow is shown when the difference from 2022 is statistically significant, along with the corresponding percentage point increase or decrease in brackets. If no arrow appears, the difference from 2022 is not statistically significant.\*

In general, satisfaction with DATS along various aspects of the journey was high with scores above 90%. While still high, satisfaction scores were slightly lower for the 30-minute pick-up window (82%) and on time performance (83%).













#### Suggestions for Improvement

Among survey respondents that used DATS and provided suggestions (n=187), about one-in-three (31%) indicated that no improvements are needed. Of those who provided suggestions for improvements, shortening the current 30-minute pick-up window was most frequently mentioned (17%).

#### Suggestions for Improvement (n=187)

Shorten the 30-minute pick-up window



17%

Service efficiencies (e.g., increase number of vehicles/drivers, decrease number of routes/riders, etc.)



16%

Enhanced experiences with drivers **L** 



15%

Improve service punctuality



12%

More reliable tracking/notifications

















### Non-Riders









#### **Non-Riders Annual Survey**

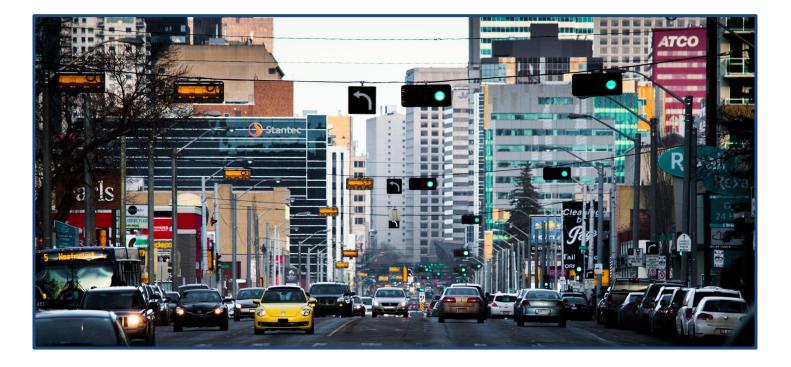
The 2023 ETS Non-Rider Survey was conducted during the fall of 2023. The objective of this research was to understand why individuals stopped using ETS and to identify potential service improvements that could encourage them to return.

Data was collected from 400 respondents through an online panel\*. The survey targeted individuals who last used ETS services between April 2021 and September 2022 or who had used ETS infrequently (less than once a month) in the past 12 months.

Respondents were asked about:

- · Historical use of ETS
- Current transportation choices
- Perceptions of ETS, and their likelihood of returning to transit use
- Demographics

\*Transit riders aged 15+ residing in Edmonton were randomly selected from an online panel of pre-recruited individuals who have agreed to participate in surveys. Note that this is a non-probability sampling methodology and a margin of error cannot be reported. For comparison purposes, a probability sample of this size has an estimated margin of error (which measures sampling variability) of +/- 4.5%, 19 times out of 20.















#### **Overall Non-riders Perceptions of ETS**

Despite very little or no current usage of ETS, non-riders identified the following positive experience with/perceptions of ETS:

- Overall satisfaction (top 3 box score) with previous usage of ETS among non-riders was 74% while overall transit experience registered a score of 66%.
- More than one-third (37%) found ETS to be convenient and one half (51%) of non-riders used ETS in the past as it eliminated the need to pay for parking.
- One third of non-riders would take ETS if their primary mode of transportation suddenly becomes unavailable, indicating a real opportunity to attract non-riders.

#### Main Reasons for Non-usage of ETS

**Life changes:** For two-thirds of non-riders, the reason for no longer using ETS was simply a change in circumstances such as moving closer to work, having acquired a vehicle, or shifted to remote work.

Personal Safety: Personal safety issues were prominent, with one in four respondents citing security concerns as a factor in their decision to stop using public transit.

**Limited Options/Scheduling:** In addition to safety, non-riders pointed out the limited transit options available to them with 16% indicating that the current ETS routes and schedules didn't meet their needs.

#### Suggested Improvements Influencing Future Usage of ETS



Fare Freeze/Reduction



**Improve Safety and Security** 



**Expand Service Coverage** 



**Enhance Cleanliness and Maintenance** 













#### Follow-up In-depth Research with Non-Riders

A qualitative study exploring the experiences and perceptions of non-riders was conducted by inviting lapsed public transit riders to take ETS and provide their in-the-moment experiences. Participants were asked to take at least two one-way trips, each with a different trip purpose and to complete a series of tasks. Feedback and recommendations from the study would help ETS:

- Understand root causes for discontinued used and values among non-riders.
- Explore whether positive experiences on transit may entice past non-riders to take transit again.
- Inform future communication strategies to support Edmonton's mode shift goals.

#### Methodology

In total, 21 individuals participated in the research study in July 2023. Participants completed 10 tasks that captured different aspects of their journey on transit. Participants provided a rating for each task and described their experience by uploading videos, screen recordings, pictures, and text. Research moderators interacted with participants during the study to garner further clarity. Participants also had the opportunity to reflect on their experience overall and how it would impact their future use with ETS.

The sample of participants included some with disabilities, members of racially marginalized groups, newcomers to Canada, individuals of various ages from throughout the Edmonton census metropolitan area.

#### **Key Learnings from Non-Riders' Use of ETS**

**ETS experience was generally positive:** Most non-riders were satisfied with their trip on ETS and many indicated that they may take ETS moving forward as an occasional rider. Although, non-riders have alternate transportation, participants indicated they will consider ETS as a viable option for other trips when they are convenient.

Participants suggested the following to increase usage of ETS:



Additional presence of security personnel would be welcome: All participants, regardless of satisfaction with their trip(s), noted safety as the critical factor determining whether to use ETS in the future. Specifically, downtown transit stations, pedways, and the LRT were cited as areas of considerable concern.



**Promoting ETS as a transportation means for special events for non-riders:** For those who took ETS to attend special events, public transit was often seen as a preferable option to driving as it alleviated the need to search and pay for parking, dropped them off near the event entrance, and often had travel times comparable to commuting by personal vehicle.



More information/education on Arc card for non-riders should be considered especially information on how to load funds, tap on/off and registration.











# Appendix A Demographics







#### Conventional Riders Survey Respondent Profile

In which of the following age categories do you fall? (n=3000)

Age Group	Percent
15 - 17 years	15%
18 - 24 years	22%
25 - 34 years	26%
35 - 44 years	14%
45 - 54 years	12%
55 - 64 years	8%
65 - 74 years	1%
75 years or older	1%
Prefer not to answer	15%

Where do you currently reside? (n=3000)

Municipality	Percent
City of Edmonton	88%
Beaumont	1%
Fort Saskatchewan	1%
Leduc	1%
Sherwood Park	3%
Spruce Grove	1%
St. Albert	4%

Indicate which of the following represents your total household income per year before taxes. (n=3000)

Household Income	Percent
Under \$20,000	9%
\$20,000 to under \$29,999	10%
\$30,000 to under \$39,999	9%
\$40,000 to under \$49,999	8%
\$50,000 to under \$59,999	10%
\$60,000 to under \$74,999	10%
\$75,000 to under \$99,999	16%
\$100,000 to under \$149,999	14%
\$150,000 or more	9%
Prefer not to answer	7%

Are you a member of any of the following? [Select all that apply] (n=3000)

Identity	Percent
Racialized minority	20%
Persons with disabilities	14%
Indigenous (as defined in Canada as First Nations, Métis or Inuit)	9%
New to Canada (less than 3 years)	5%
LGBTQ2S+	8%
None of the above	50%
Prefer not to answer	4%
=	

What gender do you identify as? [Select all that apply] (n=3000)

Gender	Percent
Female	51%
Male	46%
Transgender	1%
Non-binary	1%
Two-spirit	<1%
Another gender not listed above	<1%
Prefer not to answer	1%

Are you a parent who has a child under the age of 18 years residing with you? (n=3000)

Parental Status	Percent
Yes	906
No	1546
Prefer not to answer	48

Are you currently attending school? (n=3000)

Student Status	Percent
Not currently a student	78%
Yes, high school student	5%
Yes, full time postsecondary student	8%
Yes, part time postsecondary student	4%
Yes, student in vocational college	2%
Prefer not to answer	3%

In terms of employment (including self-employment), how would you describe yourself? (n=3000)

Employment Status	Percent
Employed full time (30 hours or more per week)	50%
Employed part time (less than 30 hours per week)	14%
Student	10%
Retired	10%
Not employed (not related to COVID- 19 crisis)	6%
Unable to work	5%
Stay at home parent	2%
I am currently unemployed because of COVID-19 crisis	1%
I am forced to take time off (furloughed)	<1%
Prefer not to answer	2%







#### **DATS Respondent Profile**

In which of the following age categories do you fall? (n=279)

Age Group	Percent
18 - 64 years	46%
65 - 74 years	26%
75 years or older	28%
Prefer not to answer	1%

Indicate which of the following represents your total household income per year before taxes.

Household Income	Percent
Under \$20,000	14%
\$20,000 to under \$29,999	19%
\$30,000 to under \$39,999	9%
\$40,000 to under \$49,999	3%
\$50,000 to under \$59,999	3%
\$60,000 to under \$74,999	3%
\$75,000 to under \$99,999	3%
\$100,000 to under \$149,999	1%
\$150,000 or more	<1%
Prefer not to answer	44%

Are you a member of any of the following? [Select all that apply] (n=279)

Identity	Percent
Racialized minority	11%
Indigenous (as defined in Canada as First Nations, Métis or Inuit)	6%
New to Canada (less than 1 year)	1%
LGBTQ2S+	3%
None of the above	64%
Prefer not to answer	16%

What gender do you identify as? [Select all that apply] (n= 279)

Gender	Percent
Female	54%
Male	43%
Transgender	0%
Non-binary	1%
Two-spirit	1%
Another gender not listed above	0%
Prefer not to answer	3%

Are you currently attending school? (n=279)

Student Status	Percent
Not currently a student	87%
Yes, high school student	0%
Yes, full time postsecondary student	0%
Yes, part time postsecondary student	1%
Yes, student in vocational college	2%
Prefer not to answer	9%

In terms of employment (including self-employment), how would you describe yourself? (n=279)

Employment Status	Percent
Employed full time (30 hours or more per week)	3%
Employed part time (less than 30 hours per week)	8%
Not employed	6%
Unable to work	29%
Stay at home parent	<1%
Retired	45%
Prefer not to answer	9%

Do you have children, 18 years old or under, living at home? (n=279)

Parental Status	Percent
Yes	8%
No	86%
Prefer not to answer	6%











#### **Non-Rider Respondent Profile**

In which of the following age categories do you fall? (n=400)

Age Group	Percent
15 - 17 years	3%
18 - 24 years	12%
25 - 34 years	24%
35 - 44 years	20%
45 - 54 years	14%
55 - 64 years	15%
65 - 74 years	9%
75 years or older	3%
Prefer not to answer	1%

Where do you currently reside? (n=400)

Municipality	Percent
City of Edmonton	73%
Beaumont	2%
Fort Saskatchewan	3%
Leduc	2%
Sherwood Park	7%
Spruce Grove	5%
St. Albert	8%

Indicate which of the following represents your total household income per year before taxes. (n=400)

Household Income	Percent
Under \$20,000	6%
\$20,000 to under \$29,999	5%
\$30,000 to under \$39,999	8%
\$40,000 to under \$49,999	6%
\$50,000 to under \$59,999	6%
\$60,000 to under \$74,999	9%
\$75,000 to under \$99,999	19%
\$100,000 to under \$149,999	19%
\$150,000 or more	12%
Prefer not to answer	11%

Are you a member of any of the following? [Select all that apply] (n=400)

Identity	Percent
Racialized minority	15%
Persons with disabilities	10%
Indigenous (as defined in Canada as First Nations, Métis or Inuit)	7%
New to Canada (less than 3 years)	2%
LGBTQ2S+	8%
None of the above	60%
Prefer not to answer	6%

What gender do you identify as? [Select all that apply] (n=400)

Gender	Percent
Female	56%
Male	42%
Transgender	2%
Non-binary	1%
Two-spirit	<1%
Another gender not listed above	1%
Prefer not to answer	<1%

Are you a parent who has a child under the age of 18 years residing with you? (n=400)

Parental Status	Percent
Yes	34%
No	66%

Are you currently attending school? (n=400)

Student Status	Percent
Not currently a student	82%
Yes, high school student	5%
Yes, full time postsecondary student	6%
Yes, part time postsecondary student	4%
Yes, student in vocational college	1%
Prefer not to answer	2%

In terms of employment (including self-employment), how would you describe yourself? (n=400)

Employment Status	Percent
Employed full time (30 hours or more per week)	53%
Employed part time (less than 30 hours per week)	15%
Not employed	9%
Unable to work	5%
Stay at home parent	3%
Retired	14%
Prefer not to answer	2%







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