

# **Destination Accessibility of Higher Educational Institutions from Scarborough**

By:  
Gregory Bascombe

Supervised by:  
Dr. Mahtot Gebresselassie

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## **Abstract**

The ability to access destinations such as educational institutions through public transportation can greatly benefit an individual in many aspects of life. Commuter students can face mobility issues when attending an urban university, issues that are not limited to mobility but also affect students' academic success. This study presents an investigation of the destination accessibility of higher educational institutions in Toronto from Scarborough. The research emphasizes lived experiences collected through semi-structured interviews with post-secondary students who attend York University, Toronto Metropolitan University or the University of Toronto. Student experiences were analyzed to answer the research question: How does existing public transit affect Scarborough residents' access to university education? The research found that mobility in Scarborough encouraged commuter students to manage their time in order to balance academics, commuting, and other responsibilities such as part-time jobs. The study revealed students' appreciation for public transportation's ability to get them to campus, but also captured their challenges surrounding the commute itself, which made being a student or attending campus difficult. Issues such as delays, busy transit, safety concerns, poor student mobility programs and a lack of information regarding transit schedules can also affect students' academic success. The research also put forward three recommendations that can help improve students' destination accessibility in the short and long term. The study is relevant as good access to higher education can be associated with increased income and improved life satisfaction, but poor destination accessibility can hinder one's access to opportunities. The study is especially relevant in the context of Scarborough for two reasons. First, several transportation projects for the area have been cancelled. Second, statistics show that the area has a lower percentage of residents who have achieved a post-secondary education degree compared to most of Toronto.

## **Foreword**

This research paper was conducted for the partial fulfillment of the Master's of Environmental Studies (MES), in the Planning program at York University. The research topic chosen has been compelling to me, dating back to my undergraduate degree. After starting the MES program, I was able to narrow down and focus my research through the plan of study. The plan of study helped outline my broad vision of studying Scarborough public transportation through the lens of equity and accessibility. My time in the MES program narrowed my focus even more, but three main components from my plan of study remain constant. The three learning components from the plan of study are: 1. equitable transit planning, 2. mobility and 3. community engagement.

Through conducting and executing this research, the learning objectives and components have taken shape differently than when the components were originally crafted. Particularly, the community engagement component took the form of allowing residents of Scarborough to voice their lived experiences on public transportation and on the community of Scarborough, rather than the originally theorized deeper understanding of civic involvement in the transit planning process. The mobility and equitable transport planning components, however, have stayed more aligned to their original vision, which greatly benefited the study. Learning objectives also helped guide my research, and a few of the objectives stand out in terms of fulfillment.

Learning Objective 1.3: To expand my understanding of how transportation is uneven in order to better understand how disparities are produced.

Learning Objective 2.1: To expand my knowledge of mobility in order to better understand how mobility may affect one's life.

Learning Objective 2.2: To gain a strong understanding of Toronto's demographics in order to identify any class and race-based mobility issues.

The two years in the Master's of Environmental Studies (MES), in the Planning program, and the learning components have helped shape this research paper for partial fulfillment of the MES Planning degree. Plus, my experiences at York University have helped shape who I am.

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Most importantly to myself, I would like to thank my family, friends and girlfriend for giving me the space, support and challenge to pursue a MES Planning degree. Specifically, without my family's support, I would not be in this situation; there are countless instances of support which I can never repay, so truly, I am thankful.

## **1. Introduction**

Adequate public transportation allows for unrestricted physical movement for any individual in an urban area, while also facilitating social class mobility by making critical destinations accessible. Destinations of increased opportunity, such as a place of work or an educational institution, can benefit individuals' social mobility, which can refer to one's ability to move between different areas and positions in society (Heath & Li, 2023, p.3). Therefore, areas with poor public transportation or no public transit, which make accessing destinations difficult, can affect one's life outcomes. The research aims to understand the destination accessibility of post-secondary institutions in Toronto, from Scarborough, by exploring current students' lived experiences using public transit to access educational institutions.

The term "destination accessibility" extends beyond an individual's ability to physically access a location using public transportation. Destination accessibility is similar to mobility justice in that individuals may incur financial costs, time costs, safety concerns, and existing city land use concerns (Sheller, 2020, p.13), which can hinder an individual's ability to access a location. The research focuses on students from Scarborough. Specifically, commuter students face many challenges other than mobility when trying to obtain a degree, such as family obligations, work, maintaining personal relationships, time management, other financial obligations, academic responsibility and the challenge of becoming acclimated to the university environment (Negga et al., 2007, as seen in Newbold, 2015, p.81). Students have busy schedules, and often they are young adults with limited resources. Potential poor public transport can have a significant impact on students' time and opportunities. Attending an urban university can pose many challenges for individuals, including but not limited to mobility concerns. Students can face a hidden curriculum not associated with school, which can have an adverse impact on their academic success. An example of non-school related factors acting as a hidden curriculum is when students try to obtain housing in an urban setting, students can face challenges of discriminatory landlord practices, along with other issues which students have to work more hours to afford rent, which can take away from academic success and student life (Sotomayor et al., 2022). Students attending urban universities may be forced to commute to campus due to housing struggles in the City of Toronto, which hosts one of the highest average rents in Canada (Rentals.ca, 2025). Urban challenges like affordable housing and mobility highlight how, when trying to obtain a degree, students must overcome challenges that are not just school-related.

Research has been done on mobility justice, including case studies of suburban mobility in Scarborough that help examine suburban opportunities and how suburban contexts are intertwined with human and environmental systems (e.g., Tiznado-Aitken & Farber, 2024). Research has also

focused on commuter students and their level of academic success within the GTA area, and the barriers they face in terms of campus participation and academic success, as well as satisfaction (Taylor & Mitra, 2021). The research presented here differs from previous literature and studies on the topics because it specifically researches how public transportation affects students' destination accessibility as well as how public transportation impacts students' lives and academic progress. Therefore, the primary research aims to understand this topic in the context of Scarborough. The research is interested in examining destination accessibility using public transportation among students and its impact on their commute and academic performance.

The main research question in this study is: **How does existing public transit affect Scarborough residents' access to university education?** The study aims to answer the question using the lived experiences of students who use public transportation to attend York University, Toronto Metropolitan University or the University of Toronto. The objective of the research is to compile evidence through the lived experiences of students to identify how public transportation affects their access to their university campus, and the impact on their academic ability. The research concludes with recommendations drawn from the findings with the goal of creating knowledge that can contribute to improving student destination accessibility to their respective university campuses in Toronto.

The paper is broken up into six parts. The first section is the background and key context on Scarborough and public transportation to frame the research question. Section two features previous research done and frames the research question in existing literature by emphasizing the main themes. The methodology section highlights the methodological approach and procedures on how the research was conducted, including participant recruitment and the research question. Section four discusses findings from the participant interviews and presents the overall experience of students. Section five interprets the findings through the lens of the research question and compares them to previous literature. The discussion section also presents recommendations. Recommendations of the research paper will be based primarily on the findings presented by the students. Section six provides a conclusion to the paper and showcases the key points of the research overall, and suggests future research directions.

## **1.1 Public Transportation**

Public transportation in urban areas has been recognized for improving factors such as sustainability and quality of life in cities. The economic and environmental performance of cities can improve through public transportation integration, therefore making public transportation networks important for cities to function, enabling urban interaction on a grand scale (Bok & Kwon, 2016, p.1).

Public transportation networks are not limited to mass connecting infrastructure modes such as buses or subways, public transportation can take the form of many different modes of mobility. Just north of Toronto within the York Region, the Municipality breaks down different forms of public transportation in their *2022 Transportation Master Plan*. York Region illustrates how transportation planning can be adjusted based on land use, ability and density. The Region has York Region Transit, which offers bus rapid transit but also offers mobility on request and mobility on request paratransit (York Region, 2025, p.11). York Region is expansive and has a lot of flat, less densely populated areas, the Region offers mobility routes where a York Region car or smaller bus can produce local trips for people in less dense areas (York Region, 2025, p.74). York Regions Transit demonstrates how public transit can be planned differently depending on local indicators. For the case of York Region, having a fully fleshed bus system across the whole Region would cost a lot of money and may be sparsely utilized in some areas, therefore adapting what public transit is, can make mobility more equitable even though the development of mobility infrastructure may not seem equal across all parts of the Region.

Public transportation is beneficial for governing bodies as well as individuals. The benefits from good public transportation for governing bodies and society are in the form of assisting in wealth creation, saving space, creating certainty for outside investment and creating city spaces suitable for knowledge and service economies (Newman, 2012, p.1- 4). For individuals, it can save time, is more equitable, is preferred by young people, and reduces the extra cost associated with car dependency and ownership (Newman, 2012, p.1- 4). A good public transit system will reduce car dependency. Car dependency occurs when there is marginal or no option of mobility other than automobile travel, this can occur due to existing land use or decisions made on infrastructure and transportation ( Newman & Kenworth, 1999, as cited in Okeke et al., 2020, p.159). Automobile dependency increases sound and air pollution, safety issues, loss of the public realm and economic issues (Newman & Kenworth, 1999, as cited in Okeke et al., 2020, p.159).

Poor public transit can lead to car dependency, which can have an economic burden for individuals to own a car because people who do not have the means to own a vehicle face significantly higher risks of social exclusion (Borgato et al., 2021, p.132). The higher risk of social exclusion may force many to endure various expenses involved with owning a vehicle to have access to the opportunities. A study in San Diego found that low-wage job accessibility was thirty times greater by car than low-wage job ability via public transportation (Boarnet et al., 2017, p.308). The same study highlighted that low-income neighbourhoods in San Diego were not disadvantaged in terms of physical access to the location of low-wage jobs in terms of the total distance to jobs, but were only limited through accessibility to mobility (Boarnet et al., 2017, p.308). The study suggests that first and last-mile issues impact total access, the study also suggests that policies reducing wait times and increasing access to transit stops through ride shares, bicycles, or different modes of transportation can

improve job accessibility (Boarnet et al., 2017, p.308). Within planning, transportation first and last mile refers to the distance an individual must travel to get from their origin point to the mode of transit, such as a transit stop (Mohiuddin, 2021, p.1). Therefore, almost all transit trips require other modes of transit, the first and last mile can greatly impact the success of transit planning by allowing sufficient access to transit stops (Mohiuddin, 2021, p.1). First-and-last-mile issues go further than just distance, they can also be safety issues. If someone is far from a transit stop, they may not feel safe during the night to use public transport if they know they have to endure a long walk to or from the bus stop. Safety is another issue in public transportation. In contrast, road safety may be decreased when on public transport compared to riding a bicycle or other modes of travel, but safety and security on public transportation in Toronto have been a major concern in the past few years, with several high-profile incidents occurring.

The Toronto Transit Commission has combated safety concerns by increasing spending on TTC community safety, security and well-being programs, plus hiring more officers and patrol people, requesting stop services running from 9 pm to 5 am and launching a SafeTTC app where users can report suspicious activity or immediate concerns (Ide, 2024). Along with safety, another individualized emotion or feeling that may affect transit users is the potential stigma of being a public transportation user. “Individuals who are stigmatized have, or believe in having, an attribute that marks them as different, which leads them to be devalued in the eyes of others” (Major & O’Brien, 2005, as seen in Ruiz, 2022, p.2). Individuals who use public transit may be thought of as in a lower economic bracket, such as being unhoused, undocumented or just living in a low-income household (Ecolane, 2016, as seen in Ruiz, 2022, p.2). Individuals seeking mobility in urban areas face many challenges, including cost, accessibility, and potentially poor public transit. However, even when public transit is offered, many face mental roadblocks in the form of safety concerns on public transit and the potential stigmatization a user might encounter.

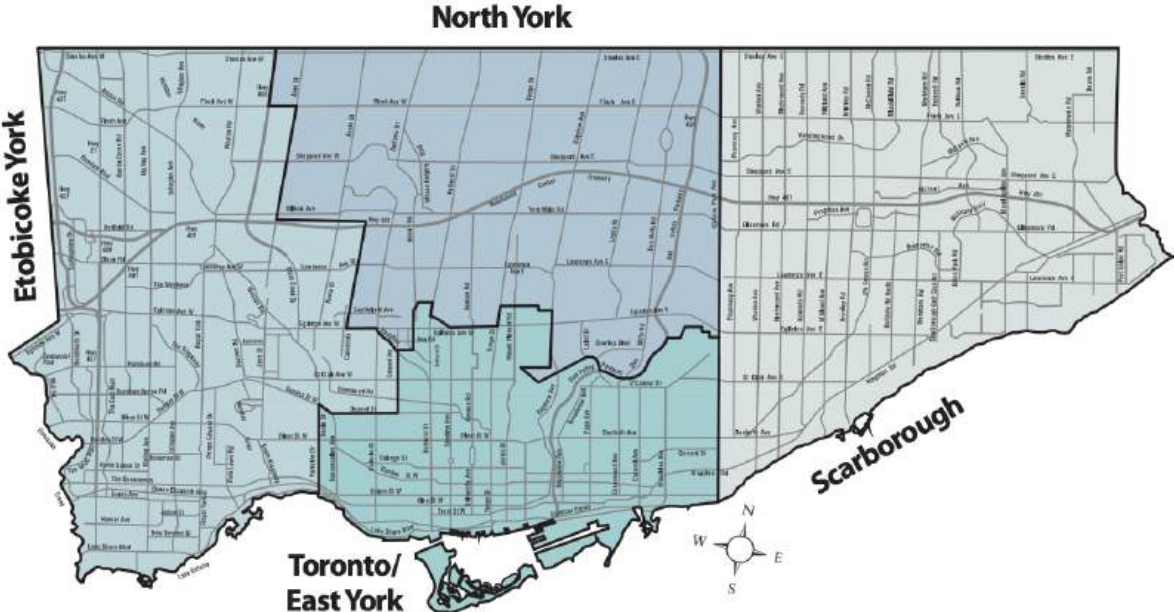
Overall, as the literature shows, a good public transportation system benefits the environment, personal and government economies and, most importantly, builds connections that help communities and individuals in numerous ways.

## **1.2 Background**

The research focuses on Scarborough, an inner suburb of Toronto. The section below provides a background and historical context on the inner suburb of Scarborough, based on its current demographic statistics and history of public transportation.

Located on the east side of Toronto, Scarborough is a diverse area. Scarborough was once its own township under the Metropolitan of Toronto, but in 1998, the area amalgamated with six other lower-tier municipalities to form the City of Toronto (Ontario, n.d). The other five that amalgamated included Toronto, East York, Etobicoke, North York, and York. The current boundaries of the inner suburbs of Scarborough are Steeles Avenue on the North, Victoria Park Avenue on the west, Lake Ontario on the south and east side, and the Rouge River and Durham Region to the east. The City of Toronto governs Scarborough and is not considered a distinct region that follows a different official plan from Toronto. Scarborough is a community within Toronto with defined boundaries, and its residents are considered Torontonians.

**Figure 1:** Map of the City of Toronto Council Areas



Source: City of Toronto, n.d.

**Population**

Scarborough has a total population of 623,610 as of 2021 (City of Toronto, 2024 D), making it the third most populous council area. Scarborough has experienced slower population growth compared to the rest of the city in the past ten years (as shown in Figure 2).

**Figure 2: City of Toronto Council Area Population and Population Growth Comparison**

Area	5-Year Population Increase	10-Year Population Increase	2016 Population	2021 Population
Scarborough	0.1%	0.9%	623,130	623,610
Toronto East York	5.2%	14.4%	847,040	891,320
North York	1.4%	5.7%	638,090	647,245
Etobicoke York	2.7%	5.8%	583,390	599,110
City of Toronto	2.6%	7.2%	2,691,650	2,761,285

Source: City of Toronto, 2024 C.

Population growth is relevant to the study as it potentially can indicate areas where growth is not occurring, or that area is unfavourable to live in. Scarborough’s population density is approximately ten people per hectare less than that of the City of Toronto. Toronto has 43.4 people per hectare, while Scarborough has 33.1 people per hectare, which is the second lowest population density in the city (Etobicoke York has 33.0) (City of Toronto, 2024 C). Scarborough is a large area within the City and has a land use which is less dense, indicating that there is potential for room to grow more densely in the area. The area with the largest amount of population change is Scarborough North, with -4.1% of the population from 2016 to 2021 (Government of Canada, 2024 A).

**Immigration**

According to the 2021 census, 23% of the population of Canada is foreign-born. Totalling 8,361,505 people, and from 2016 to 2021, the recent immigrants make up 15.9% of the population (Government of Canada, 2023 A). The influx of immigrants can strengthen the Canadian economy by increasing our labour force, which generates more taxes to fund services (Government of Canada, 2025). Canadians are living longer and having fewer children. Immigrants help replace gaps in our labour force left behind by an aging population and a limited Canadian-born worker pool (Government of Canada, 2025). Although with all the immigration the Country is seeing, Scarborough has limited population growth. While Scarborough has limited population growth, the area is already one of the most diverse regions in the Country. Out of Scarborough’s total immigration population, 50.2% of the immigrants in Scarborough immigrated between 1991 and 2010 (City of Toronto, 2024 D). Compared

to the five-year span of 2016 to 2021, Scarborough has had 12.0% of their total immigrant population enter Canada during this time, while during the same time, Toronto saw a 15.4% rate (City of Toronto, 2024 D). Scarborough has always been home to many Canadian immigrants, and the community has deep roots around the world. The total immigrant population in Scarborough makes up 55.5% of the population, which is the highest in the city, and about 9% higher than the city average. Granted that 44% of immigrant admissions into Scarborough were for economic reasons (City of Toronto, 2024 D), it is important to ensure that there is adequate public transportation to destinations of opportunities, such as workplaces.

### **Housing and Households**

The dwelling statistics reflect the limited population growth but also tell a story of household type and family living in Scarborough. The area of Scarborough has seen limited dwelling growth since 2021, even though many Canadians may consider the country to be in a housing crisis, in which more houses need to be built. A rise in the number of new Canadians should also be paralleled by an increase in infrastructure, such as dwellings. Scarborough has the lowest 5-year dwelling increase at 1.5%, when compared to the city average at 4.3% (City of Toronto, 2024 D). Possibly correlated, the population growth and dwelling increase have both been the lowest in the city for the past 5 years (City of Toronto, 2024 D).

Relevant to the research is the land use of Scarborough, the inner suburb has the lowest amount of mid to high-rise dwellings in the city. The dwelling type difference is significant for mobility because larger, less dense areas take longer to traverse and require more resources to provide public transportation in order to service the area. Other regions in Toronto have similar land use, such as Etobicoke. Density and suburban land use are important for this research and occur in many areas of Toronto, which can put a strain on communities and make providing infrastructure potentially difficult for governments. The study understands land use and its effect on mobility and will examine how Scarborough's land use and dwelling types play a role in students' destination accessibility.

**Figure 3:** City of Toronto Council Area Dwelling Type Comparisons

Area	Mid / High Rise	Ground Related Dwelling
Scarborough	35%	65%
Toronto East York	53%	47%
North York	49%	51%
Etobicoke York	42%	58%
City of Toronto	47%	53%

Source: City of Toronto, 2024 C.

**Education and Income**

The research paper focuses on whether destination accessibility to educational institutions from Scarborough has an impact on residents’ ability to access higher education in Toronto. Together, education statistics and other demographic statistics of Scarborough present a picture of why the research is relevant to study and how the demographic data reflect the research question.

**Figure 4:** City of Toronto Council Area Household and Individual Economics Comparison

Area	Median Annual Household Income	Median Individual Income	Unemployment Rate as a % of Labour force	Low Income Total population
Scarborough	\$83,000	\$33,600	16%	13%
Toronto East York	\$83,000	\$46,800	12%	14%
North York	\$86,000	\$39,200	13%	14%
Etobicoke York	\$83,000	\$37,200	15%	12%
City of Toronto	\$84,000	\$39,200	14%	13%

Source: City of Toronto, 2024 C.

Figure 4, the household and individual economic comparison, shows Scarborough households have similar economics to other areas in the city. While not shown on the chart, Scarborough has the lowest average housing cost at \$1,286 within Toronto (City of Toronto, 2024 D). Given average household incomes and lower housing costs compared to the City could suggest more homes have

disposable income. However, when looking at individual income, Scarborough has the lowest median income. The lowest median income, paired with the fact that Scarborough houses more people per home than the rest of the city, can help explain the average household income. Scarborough residents are 16.6% below the city of Toronto’s median rate for individual average income. For the research at hand, the important statistic in Figure 4 is the unemployment rate. Scarborough has the lowest median individual income, along with the highest unemployment rate. These statistics paint the area’s individuals as having less of an economic standing when compared to the rest of the city. Further research must be done to understand why Scarborough has low economic indicators and how it is affecting the communities and individuals who live there.

**Figure 5:** City of Toronto Council Area Education Level Comparison

Area	No High School	High School	Post-Secondary
Scarborough	18%	28%	54%
Toronto East York	10%	19%	71%
North York	12%	22%	66%
Etobicoke York	19%	27%	54%
City of Toronto	14%	23%	62%

Source: City of Toronto, 2024 C.

Figure 5 shows that Scarborough has fewer people who obtain a post-secondary degree when compared to the City of Toronto. Figure 5 is relevant to the research question as it highlights the importance of the research to help identify one potential factor of why the area has a lower education rate. Destination accessibility concerns may play a role in the Figure 5 statistics.

While this research study is not to prove or disprove an uneven amount of infrastructure investment in the area of Scarborough, there have been prior campaigns that have done so. The Scarborough Health Network’s campaign “Love Scarborough”, which highlights a perceived lack of consideration for Scarborough and its residents. The campaign identifies how Scarborough’s Health Network gets less than 1% of all hospital donations while representing 25% of the city’s population (Love, Scarborough, n.d). The campaign features how the Scarborough Health Network as a whole does 176,000 emergency visits in ERs that were built for half that number, 61,700+ surgeries each year, with some done in the oldest operating rooms in Ontario (Love, Scarborough, n.d). Campaigns such as Love Scarborough reinforce the idea of Scarborough being forgotten or underinvested with

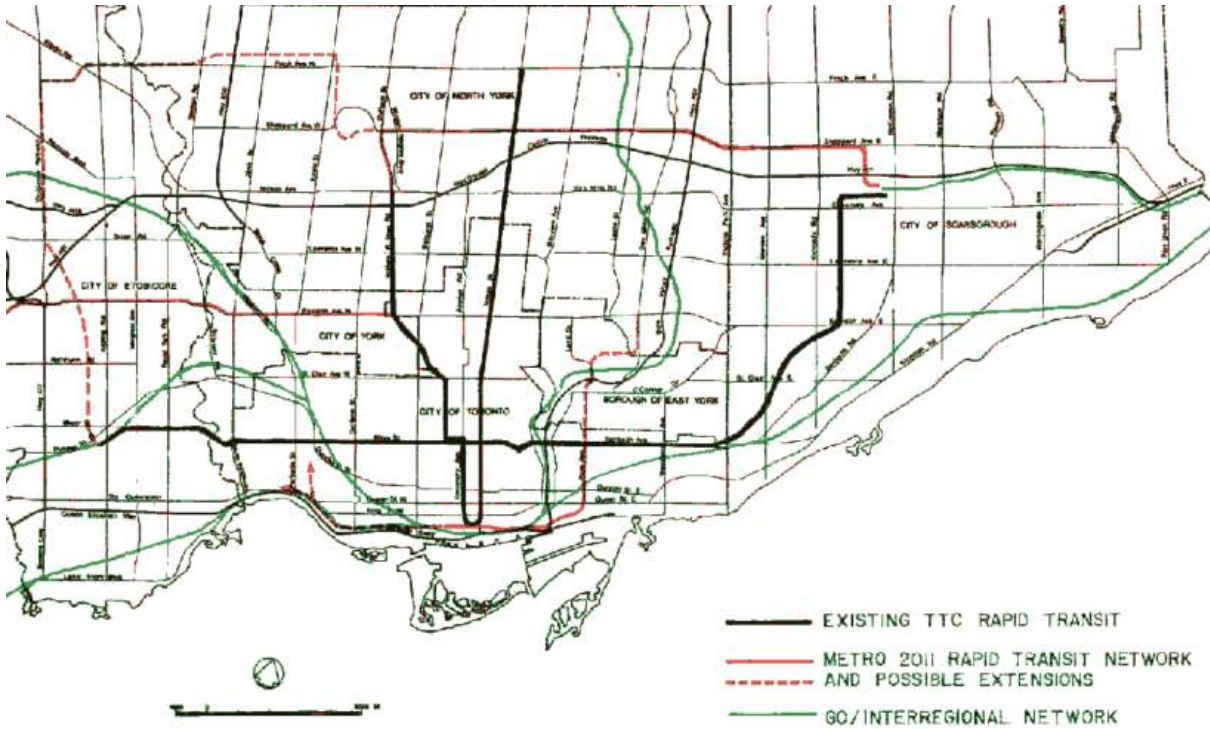
real, tangible data. The viral campaign of Love Scarborough can resonate in residents' opinions, and they may carry the feeling of neglect to other aspects of their communities, whether they are justified or not. The research does not delve into the provincial budget or allocation of budgets, but what is clear is that some organizations and residents may feel forgotten when residing in Scarborough, which may be supported by some of the demographic contexts, such as lower education levels, higher unemployment rate, highest immigration rate and lack of new housing development.

### **1.3 History of Public Transportation in Scarborough**

The region of Scarborough has a few forms of public transportation within its boundaries. Primarily serviced by the Toronto Transit Commission, but also serviced by GO Transit and other regional transit, such as Durham transit, which have very limited routes (TTC, n.d. A). The GO services offer bus shuttles from various locations in Scarborough and have two train lines, the Stouffville line and the Lakeshore East line. Currently, the TTC has three subway stations located in the southwest region of Scarborough, and bus routes on major streets, along with other smaller routes (TTC, n.d. A). While the region is connected with bus routes, there is a lack of access to rapid public transit in the region, which can accelerate mobility. Particularly, the North East region is not only lacking rail transit, but they are also significantly far away from the Toronto subway system. Using Google Maps travel time calculator shows that a person living at Morningside and Finch is about 14 kilometres away from Kennedy Station, or a 45-minute commute on public transit (Google, 2025 A). Morningside and Finch to Don Mills station are 13 kilometres away and about a 40-minute commute on public transportation during good conditions (Google, 2025 B). Public transport commuters from North East Scarborough face long commutes just to get on the subway system. While distance is an unchangeable factor in transportation planning, and Morningside and Finch are located on the edge of the city, the time penalty individuals must endure is not equitable, especially when you consider the differences in time saved when you compare these stats to personal vehicle commute times. From Morningside and Finch to Kennedy Station in perfect conditions via a personal vehicle is 15 to 25 minutes, and to Don Mills Station is 15 to 20 minutes (Google, 2025 A&B). When compared to Etobicoke, another region that has potential mobility concerns, the city has created more new mobility infrastructure in Etobicoke. There are seven subway stations in southern Etobicoke on the Bloor-Danforth line, and in 2015, the UP Express opened, servicing the middle area of Etobicoke, and the Finch West LRT is almost complete, which will service the north region of Etobicoke (City of Toronto, 2025). Highlighting increased access to rapid transit for all areas of Etobicoke. While Scarborough is set to receive increased mobility when the Eglinton Crosstown LRT opens, mobility in the North and East parts of Scarborough is objectively underserved by rapid transit. There is a lack of new transportation infrastructure and limited maintenance of existing infrastructure (Bow, 2024).

Scarborough residents have been promised a lot, but have seen limited actual progress in terms of increasing mobility (Bow, 2021 A; Bow, 2017). The rail transit map has remained the same since the Scarborough RT was opened in 1985, along with the extension of line 2, which was opened in 1980 (Bow, 2024; Ontario Ministry of Public Business Service Delivery, n.d). As the city grew and reached its current city limits, there has been no real addition to rapid mobility infrastructure in 40 years within Scarborough. Scarborough residents have lived through proposed plans, just for the plans to fail to come to fruition, such as the Network 2011 plan in 1985, which proposed a Scarborough Subway extension (Bow, 2017). The Network 2011 plan only partially came to reality as politics came to interfere with development (Bow, 2017). The only proposed portions which were built were the line one extension to Downsview station, which was procured 8 years behind schedule and was not located in Scarborough (Bow, 2017).

**Figure 6:** Proposed Map of The Network 2011 Rapid Transit Extension



Source: Bow, 2017.

Later in the 1990s, the Let’s Move/Rapid transit expansion program was planned, which was an evolution of the Network 2011 plan (Xue, 2024). The proposal saw significant investment in Scarborough, which would have brought a subway along Sheppard Avenue meeting at Scarborough Town Centre. The proposal also would have seen an extension of the Scarborough RT with four new stations (Xue, 2024). In the end, the Sheppard subway was partially built and stopped at Don Mills station in North York, the Scarborough RT extension did not have support and was ultimately not built

(Xue, 2024). In 2007, another mass transit plan, the Toronto Transit City LRT, was announced by then-mayor David Miller. The proposals included seven LRT lines, including three in Scarborough, Sheppard East, Scarborough-Malvern and Eglinton-Crosstown (Bow, 2021 A). Once again, politics interfered as newly elected Rob Ford cancelled Transit City because his vision was that Scarborough would be better served by a Sheppard subway extension (Bow, 2021 A). The Metrolinx / Toronto Transit Plan was a plan put forward by Rob Ford. For Scarborough, this meant building the Sheppard subway and replacing the Scarborough RT with a subway (Xue, 2024). The Metrolinx / Toronto Transit plan was cancelled shortly after it was proposed, but some elements of the project still remain. Differing political opinions and plans occurred, but in the end, there is still no Scarborough extension built, subway or LRT. Only two routes from the Transit City Light Rail plan are in progress today. These are a modified Etobicoke Finch West line and a modified Eglinton Crosstown.

**Figure 7:** Proposed Map of the Toronto Transit City Light Rail Plan



Source: Bow, 2021.

The area of Scarborough also faces issues other than just cancelled projects, delaying projects has affected the whole city, along with Scarborough. While affecting the whole city, slow development and delays of the approved Eglinton Crosstown continue to hinder business owners, with a reported 140 business closures in 2020 due to construction (Adamopoulos, 2024). Delays in projects such as the

Eglinton Crosstown, therefore, have an impact financially on community members. Construction has also limited mobility and increased traffic. A business owner highlighted that when customers come to his business, they complain about traffic, and after that, they don't come back (Macdonell, 2024), emphasizing how the delays and construction have limited people's mobility and changed travel patterns. Construction for the Eglinton Crosstown began on November 9th, 2011 (Bow, 2021 B), and is still currently not open as of summer 2025. Delayed by multiple issues, including Bombardier vehicle delays, differing political ideas and construction issues (Bow, 2021 B). Presenting projects and plans or cost-cutting measures for a yearly budget can help a politician get elected, but the political theatre, specifically around transportation, has real impacts on individuals and communities. Currently, as of the writing of summer 2025, the City of Toronto has a few projects in the planning and development stage, such as the Sheppard Subway (City of Toronto, 2025). Two projects are in the preliminary design and engineering stage: Eglinton East LRT and Durham Scarborough BRT. Additionally, the Scarborough Subway extension is under construction (City of Toronto, 2025). As seen in Figure 8, these projects will help increase rapid transit mobility for the residents of Scarborough.

**Figure 8:** City of Toronto Existing and Future Rapid Transit Network

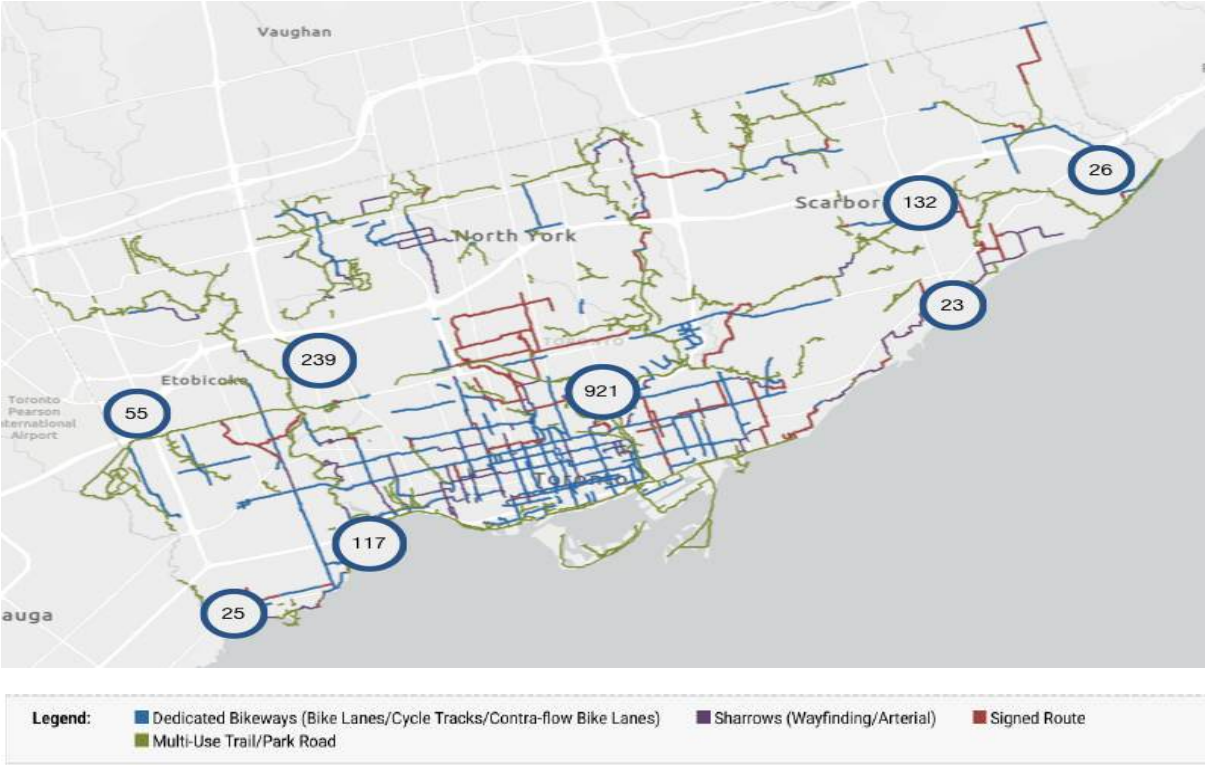


Source: City of Toronto, 2025 B.

Scarborough residents' mobility has not only been affected by limited growth but has also been hindered by the closing of the Scarborough RT, which lasted 38 years. On July 24th, 2023, a Scarborough RT car derailed, causing the permanent closing of line 3 (Marshall, 2023). The Scarborough RT was planned to close in November of that year despite the derailment. The unexpected closure meant that Scarborough saw not an increase but a reduction in rail mobility infrastructure over the past 40 years. The Scarborough RT was always meant to be replaced, but due to conflicting political issues along with other delays, the TTC did what it could to maintain the existing infrastructure (Marshall, 2023). The Scarborough subway extension was put in place to replace line 3, however, the absence of line 3 still leaves many in Scarborough without rapid transit for the period of time needed to complete the subway extension. The Scarborough RT was used by many and was located in a central location at Scarborough Town Centre. In response, the City of Toronto and TTC introduced the Scarborough busway as a Line 3 replacement (TTC, n.d. C). The response will include dedicated lanes or corridors only buses can use, express services, and a higher frequency of buses to keep up with the higher occupancy that the Scarborough RT had, along with buses that follow a similar route as the Scarborough RT did (TTC, n.d. C).

Overall, there is evidence to support that there is a lack of rapid transportation in Scarborough. Decades have gone by with no new infrastructure and a lack of initiative, which contributed to the Scarborough RT derailment as it was never planned to exist that long (Bow, 2024). Other than rail rapid transit, other forms of mobility seem to be lacking in the region of Scarborough. Spotlighted on the City of Toronto Cycling network map, which allows for active mobility, shows that even on infrastructure which costs less compared to implementing rapid transit, Scarborough seems to have less infrastructure compared to the rest of the city. Featured in Figure 9, only one bike path crosses over the 401, similar to north Etobicoke, the limited amount of active transportation routes compared to other areas of the city can hinder one's ability to access a destination and identifies uneven development across the city.

**Figure 9:** Map of Cycle and Path Networks In The City of Toronto



Source: City of Toronto, 2025 A.

The history of rapid public transportation planning in Scarborough shows a reduction in mobility in the past 40 years, although there have been many projects and plans put forward. In combination with the concerning demographic statistics, this study promotes the relevance of the research topic. The research can potentially identify the connection between mobility planning and destination accessibility of higher educational institutions from Scarborough. Lived examples of participants may highlight the real effects of limited rapid mobility growth in the region.

**2. Theoretical Framework and Literature Review**

Planning transportation for equitable and accessible cities is a large undertaking. The large undertaking includes issues that include statutory requirements such as financial planning, air quality and environmental concerns, safety and security, and asset management (Federal Transit Administration, 2004, p. 15-62). These issues may not be at the front of mind for individuals thinking about how transportation gets planned. Planning in a large city like Toronto also presents many different land uses and densities, which can influence regional travel patterns and the ability of the public in multiple different areas to access locations and opportunities through a range of different transportation options (Federal Transit Administration, 2004, p. 15 - 62) As an example of land uses influencing travel patterns, a resident of a dense community may have more opportunity to access areas or location via various travel modes. Whereas in an area with less dense land use, a resident may be forced to endure a longer vehicle commute to access a location due to distances. The research

investigates challenges associated with transportation planning, with a focus on the impacts of public transportation on Scarborough residents' access to university education opportunities. Therefore, the theoretical framework and literature review delve into understanding community and individual impacts of public transportation through five main topics. The topics are mobility, accessibility, public transportation, students and universities, and community involvement.

## **2.1 Mobility**

Mobility is crucial for society to function (Bruton, 2021,p.13). Toronto has a mass movement of goods and people, with an annual average daily traffic of vehicles along the main highway in the city, Highway 401, peaking at 480,900 vehicles per day near Highway 401 and Highway 427 (Ministry of Transportation Ontario, n.d). Vehicle traffic on Highway 401 extends into the outer regions of Toronto, such as Scarborough, where the intersection of Hwy 401 and McCowan Road has an Annual Average Daily Vehicle Traffic of 339,800 (Ministry of Transportation Ontario, n.d). According to the 2022 provincial budget, Highway 401 as a whole has an average of 17,000 trucks with commodities valued at \$615 million per day passing along the road (Ontario Minister of Finance, 2022). These statistics demonstrate the large amount of movement within the City of Toronto. Given the largest public transit system in the city, the TTC does not use Hwy 401 for the movement of people, these statistics highlight a reliance on vehicle traffic to move goods and people. The City of Toronto supports many modes other than personal vehicle traffic. The city has already invested heavily in the Toronto Transit Commission, which is the primary form of public transportation in the city. The TTC represents the second-highest allocation of funding in the Toronto budget (City of Toronto, 2022). The Toronto Official Plan also lays out a foundation to help structure growth in a way that makes the city more connected and accessible (City of Toronto, 2024 A). The City continues to create strategies and guidelines, such as the micro-mobility strategy, which aims to produce increased access and connection to the network of micro-mobility paths (City of Toronto, 2024 B). In addition, the city also has complete street guidelines, which adopt a new approach to how we design our streets to be more accessible and safe (City of Toronto, 2019).

Mobility is an important issue for the City of Toronto due to the amount of resources tied to the city's mobility. Mobility in the city impacts many aspects of society and city function. Movement is also important to individuals. Living in a world with growing urban populations that reflect the great opportunities within urban life stresses the importance of mobility, as these opportunities can only be accessed through mobility (Research Institute for Mobility, 2013). Understanding urban areas as a place of opportunity means that mobility is a key factor in a person's welfare and that of the urban society as a whole (Research Institute for Mobility, 2013). While mobility can be referred to as physical mobility, there are underlying hidden factors within physical movement that impact

individuals' lives. An example of this is social mobility, which can significantly affect people's lives if physical mobility is limited. Social mobility refers to movement in social space, one's ability to move between different areas and positions in society, and the system of social stratification (Heath & Li, 2023, p.3). For the research, social mobility can be based on status, for example, movement in one's career or intra-generational mobility (Heath & Li, 2023, p.3). Intra-generational mobility means the movement of a person's financial and career status compared to the status they were born into, such as someone who was born into a family living below the poverty line and then, in their lifetime, becomes very wealthy. The reverse of that situation can also be true. Social mobility and physical mobility are intertwined uniquely, where both forms of mobility have an impact on each other. As previously discussed, physical movement is crucial in modern cities, without physical mobility, social mobility can be severely affected. Physical mobility allows individuals to access job opportunities, educational opportunities and everyday necessities. Without physical mobility, individuals may not even be able to reach a destination where they can positively improve their social standing or quality of life. Social mobility is the recruitment to different positions in society and the extent of privilege or lack thereof to obtain said position (Heath & Li, 2023, p.3).

The understanding of how limited physical mobility impacts an individual's social mobility is closely related to the theoretical framework of mobility justice. Mobility justice sheds light on movement issues, including uneven mobility, which divides mobility and movement potential by social markers such as race, class, gender and nationality (Sheller, 2020, p.12). Mobility justice examples may not be apparent, but personal mobility injustices such as those listed above have been brought to light in order to define these injustices (Sheller, 2020, p.13). Transportation justice can help find reasons and causes for these personal injustices (Sheller, 2020, p.13). Highlighting the individualization of mobility justice can help us better answer these questions and make planning transportation more equitable if we understand personal mobility justice as mobility justice. Furthermore, individuals may experience issues of mobility justice but not even realize it, for example, everyday experiences of mobility justice could be elderly persons or persons with disabilities not being able to access a subway due to no elevator, which makes travelling inaccessible (Sheller, 2020, p.12).

Personal mobility justices are hard to study as feelings like comfort and safety can be subjective. When someone is harassed due to discriminatory reasons such as gender, race or any other reason, that person may no longer feel safe and therefore feel socially excluded from public transport and out in society (Sheller, 2020, p.13). Using the example of feeling safe, one individual may no longer feel safe or included on public transportation due to a certain event, while someone else who experiences the same event may not be as bothered by the situation and continue to use public transportation. Discriminatory factors causing mobility justice are the case during the rise of ride-share apps. While ride-share apps increase mobility for most, certain groups may be excluded or face

discrimination issues. For example, for wheelchair users and people with disabilities, access to this form of mobility in ride-share apps can still be inequitable due to inconsistency in regulatory oversight, the cost to produce an adequate supply of accommodating vehicles, and individual drivers may not know how to support someone with a disability, resulting in potential driver refusal (Gebresselassie, 2024). Other examples of individual mobility justice can be seen in people who may not be able to afford public transit, like a child or a college student, and therefore may endure mobility justice due to financial concerns (Sheller, 2020, p.13). Financial concerns can result in other forms of mobility being used, such as bicycling, which can have an increased personal safety risk if a city is not appropriately planned to accommodate bikes. Mobility justice can also be understood by looking at it as spatial justice (Sheller, 2020, p.13). Spatial mobility justice occurs in many different ways, but most obviously, when an area or community is lacking in transportation services, which makes everyday necessities hard to access (Sheller, 2020, p.13). Mobility justice can also be seen in the way our cities are planned, from building superhighways through inner cities' suburbs to uneven transportation design, making our built environment or our mobility limited (Sheller, 2020, p.13). Other forms of mobility justice are through auto-dependent cities, where residents without a vehicle still have to endure the adverse effects of air pollution caused by the vehicle traffic, as well as an individual who has to endure a long commute has to be exposed to air pollution for more extended periods of time (Sheller, 2020, p.13). Overall mobility is crucial for city function as well as individual social mobility, but mobility can become uneven in urban areas and for personal reasons, resulting in mobility justice concerns.

## **2.2 Accessibility**

Accessibility and mobility are similar when discussing urban transportation, but differ in some key aspects. Accessibility encompasses many factors, such as access or proximity, time, efficiency and even destinations (Jomehpour Chahar Aman & Smith-Colin, 2020, p.1). Having multiple factors that weigh into accessibility makes planning for mobility difficult in diverse urban settings. For example, take a term like destination accessibility. The term destination accessibility may seem straightforward in its meaning, but the term is not solely about where a destination is located. The term also entails many factors, such as metropolis characteristics like density, concentration, and centralization (Levine et al., 2019, p.79). While public transportation in Toronto does make destinations physically accessible, being able to reach a destination is not the whole rationale behind destination accessibility. The Toronto Transit Commission map shows the connectivity of the bus system, see figure 10.

**Figure 10: TTC System Map**



Source: TTC, n.d. A.

All regions of the City are serviced, the City street network is a grid pattern in which the bus routes, for the most part, follow. Therefore, destinations are accessible from any point in the City to another location via public transportation. While the TTC makes places physically accessible, it does not mean it is realistic for someone to access these locations. The term destination accessibility is not just a spatial term, the term is also personalized. The concept of distance decay is a critical concept in geography (Hooper, 2015, p.35). Distance decay is the theory that interactions between things decrease as the distance increases, the term is also known as the phrase friction of distance (Hooper, 2015, p.35). The easiest way to understand distance decay is through tourism studies. Distance decay plays a large part in tourist decisions on planning what attractions they would like to visit and how important the attraction is for them to visit in comparison to the travel time cost and expense of visiting a destination (Hooper, 2015, p.35). When a destination is further away, it becomes less competitive and, therefore, potentially attracts fewer tourists to visit (Hooper, 2015, p.35). With that being said, the competitiveness and attractiveness of a destination may be more influential than proximity, especially when you consider personal subjective preference (Hooper, 2015, p.35). Meaning if a destination or tourist attraction holds a significant meaning to an individual, they are more likely to endure potential time and financial costs to visit that location. The distance decay concept can be applied to urban mobility and accessibility. Using the example where the TTC provides physical access to any

destination in the city, the concept of distance decay tells us that just because mobility is provided to physically access a destination, it does not mean that the destination is accessible to someone due to other accessibility challenges. Similar to tourist studies, the competitiveness or attraction of the destination plays a significant role in determining if an individual will endure the travel to reach the destination. In an urban context, it was found that once travel speeds and destination locations were controlled, people were more likely to travel further distances for work than non-work purposes (Levine et al., 2019, p. 36). Reinforcing places of work to improve social mobility and make money is of increased importance to people living in urban regions.

Due to the cost of living, the majority of people have to work in some capacity. Within Toronto, 1,308,110 people are employed as of 2021, and 1,518,420 are in the labour force (Government of Canada, 2024 B), in which 791,470 of the labour force commute to work (Government of Canada, 2024 B). Commuter workers, paired with people willing to travel further distances for work purposes, reveal the potential for many to endure accessibility challenges such as the time cost to participate in the labour force. The statistics do not highlight the sacrifices and personal choices people make based on accessibility. Using the example of travel for a job, much like tourist destinations' competitiveness value, jobs can be competitive due to accessibility. A person who lands a well-paying job may decline the position due to the inaccessibility of the location and the length of time it will take them to travel to the workplace. Other limiting factors, such as cost, can make a destination which provides opportunities inaccessible through public transportation. The same concept applies to students when attending a commuter school. A student's choice to attend a post-secondary institution may not depend on whether they are able to physically reach the university, but more so on how their lifestyle fits being a commuter student and if commuting makes accessing the school it inaccessible because of compounding issues such as their commute time, needed allocation of study time, part-time jobs, cost of living and travel, as well as other needs such as family responsibilities. Challenges surrounding the accessibility of places of opportunity can potentially lead people to not pursue opportunities due to the inaccessible nature of the location where the opportunities present themselves.

Accessibility issues are real, but transportation planners are put in a position where improving equity can be difficult. One primary reason for transit equity being difficult is the built form that occurs in many major urban cities. Urban sprawl, a result of population growth, has been criticized for encroaching on agricultural lands, losing open space, generating pollution, contributing to overly long commutes, and aiding in traffic congestion (Brueckner, 2000, p.160). The City of Toronto has a higher persons per km than Scarborough, at 4,427.8 persons per km (Government of Canada, 2024 B). Dwelling statistics again indicate a less dense region in Scarborough, where 23.1% of all dwellings are condominiums compared to 30.5% for the City of Toronto (City of Toronto, 2024 D). A sprawled

density built form makes transportation planning and planning for accessibility difficult because of financial issues and the distance between locations. The cost of infrastructure can be higher in suburban regions while serving fewer people in total. Higher infrastructure costs are due to the amount of total infrastructure needed to serve the larger area compared to a more dense region.

The Government of Canada suggests that building a kilometre two-lane road in an urban municipality costs about 1.2 million and 0.4 million in rural areas (Government of Canada B, 2023). While it costs more to produce a kilometre of two-lane road in an urban region, there is also the issue of needing more kilometres of roads for more spaced out areas, which can make infrastructure more expensive for more spaced out regions in the city. Emphasizing how the built form of low-density sprawl will potentially cost more money due to more areas to service. When applied to planning public transportation, it becomes more expensive to have to buy more vehicles, employ more drivers, and even install more bus stops to service more areas compared to areas which are more densely populated. However, there is nothing transportation planners can do about distance, and they have limited ability to change the built environment, which is a slow process on its own. There are ways to increase destination accessibility without drastically lowering travel distance. Improvements come from planning policy and quality of transportation planning, ensuring user satisfaction and involvement.

Destination accessibility issues can be associated with social equity concerns in urban areas. History has proven discrimination through limited destination accessibility as well as poor mobility. Robert Moses, who was considered a visionary urban planner and held many influential positions in the state of New York, including twelve positions simultaneously (Waller et al., 2023, p.3). Robert Moses was something like a master builder and is remembered for the thirteen bridges, along with 416 miles of parkway, plus many other feats, such as creating 150,000 units of public housing as well as other social attractions such as swimming pools and parks (Waller et al., 2023, p.3). Robert Moses built for the automobile and plowed highways through inner city communities, displacing people but also limiting their mobility if they did not have a vehicle. Robert Moses highlights the history of destination accessibility, potentially being discriminatory toward certain economic and ethnic groups. Similarly, in Toronto, a planned Spadina expressway would have run through many prominent communities today, but was scrapped with the help of writings by Jane Jacobs (White & Schubert, 2014, p. 33). Jane Jacobs, who also battled with Robert Moses, believed in a ground-up and multicultural driven approach to planning, cities as an ecosystem being interconnected, and the importance of street life.

The combined ideas of accessibility issues and destination accessibility on an urban scale can also be expressed as the right to the city movement. As the name suggests, part of the theory is the right of access, along with the right to change it (Harvey, 2003, p.939). The right to the city theory,

coined by Henri Lefebvre, has continued to evolve. David Harvey argues that it is our most neglected human right (Harvey, 2012, p.4). The right to the city should allow for shaping power over the processes of urbanization in which our cities are made and remade, and we can do it radically (Harvey, 2012, p.5). For example, in New Haven, when neighbourhoods of non-whites were facing demolition in the mid-20th century, sit-outs and rent strikes occurred to combat the plans (Huysen, 2016, p.16). Students in Toronto have raised the right to the city movement over accessibility concerns. Before Line 1 of the Toronto subway system was extended into Vaughan, Go, Viva, Zum and YRT buses used to enter the York University campus bus loop and pick students up. After the extension's opening, most buses would now drop passengers off at the newly constructed Highway 7 station, about 3 Km away from the heart of campus and over a 30-minute walk. Highway 7 station was two stops away from York University station and one stop away from Pioneer Village Station, which is also located at York University. Now, instead of getting dropped off on campus, students would be dropped off two stations away, where they would need to pay another fare to use the subway for one to two stops or walk to campus. Students using a Presto for the transfer would get a discount of \$1.50 off the regular TTC fare of \$3. Many students fought against this by contacting local MPs and creating a petition. Eventually, the TTC joined the One Fare program, which eliminated double fares in 2024 (TTC, 2023). Helping improve mobility accessibility and transit equity, in theory, this change would save \$1,600 annually for an adult who travels back and forth daily using transportation (TTC, 2023). Therefore, the right to the city is more than just the ability to access a location, it is the ability for people to change aspects of the city and not just be limited to the physical, as seen in changing the pricing strategy of the new Subway extension integration.

### **2.3 Students**

The research being conducted focuses on students because they are a dynamic group of individuals who attend a fixed location, that being a university. Being a student at an urban university can pose a hardship for oneself, but universities are often seen as a positive thing. Universities offer advanced knowledge of theory, ideas and a field of work, students attend universities hoping to achieve a more financially stable future. Statistics Canada points to the disparity in income based on education level. In Canada, in 2015, women with bachelor's degrees made 60% more than women with a high school diploma, men with bachelor's degrees were the highest paid, making 11% more than men with apprenticeship certificates (Government of Canada, 2017). While income is important in urban society today, it can be argued that personal growth and overall satisfaction can be more important than financial gain. A research paper from South Africa found a strong positive connection between education and life satisfaction. People with higher education are more satisfied than those without education (Botha, 2014, p.576). Plus, life satisfaction is correlated with each additional year of education (Botha, 2014, p.576). Life satisfaction may still be related to the wealth they achieved due to

their education. However, there is a clear difference between life satisfaction between people who attend post-secondary education and those with just a secondary education. The positive income and life satisfaction statistics emphasize how and why post-secondary education is valuable. Education can be used for social good as well. Education statistics are often referred to when understanding an area's quality of life, and therefore, if more people are educated, one may assume it is a good place to live. Combining social good and non-financial positives from education, we can look at prison education programs and return-to-prison rates. Educated prisoners are less likely to go to prison a second time if they complete an educational program to read and write (Vacca, 2004, p.298). Education works to lower recidivism and lower the level of violence (Vacca, 2004, p.298). A Canadian statistic suggests inmates who completed at least two college courses had a 50 percent lower recidivism rate than the norm (Vacca, 2004, p.298). The literature clearly supports the importance of education in an individual's life and on a societal level.

Given that education has an impact on one's quality of life and expected income, it is not a surprise that many strive for a post-secondary education. Attending university, especially urban commuter universities, can pose challenges for individuals, beyond just curriculum and school-based challenges. Students who attend urban universities are unique and counter the often common ideas about post-secondary students, that students are from middle-class backgrounds and are geared for a prosperous future, but these presumptions fail to recognize the complex identities and differing experiences of students (Chatterton, 2010, as seen in Sotomayor et al., 2022, p.1). Although the presumptions do have some truth behind them, York University reports that in 2022 and 2023, the two-year employment rate of responding graduates is at 92.7% (York University, 2024, p.9). The school also highlights the diversity and potential different experiences its students face. York University is diverse, with over half of the school's population being females, 8.4% of the population being persons with disability, 13.1% of students being first-generation post-secondary students, and a diverse racialized population (York University, 2024, p.17). The statistics do not represent the assumptions of post-secondary students, and also do not stress the challenges faced by students in post-secondary life, trying to obtain a degree. Students face a hidden curriculum, which is often overlooked or marginalized as a student experience, the hidden curriculum explains the challenges, plus socio-economic burdens that students face when trying to obtain a degree (Sotomayor et al., 2022). For example, students can face discrimination and challenges in terms of finding housing based on race, gender, and perceived socio-economic status, amongst other issues (Sotomayor et al., 2022). Students may compensate for these issues by working more hours at work or living further from school, which can negatively affect their experience as well as their success (Sotomayor et al., 2022). Relevant to the research, living far away from campus along with poor mobility can be a hidden curriculum, issues of distance, time, cost, loss of social life and missed networking events, which can cause an uneven playing field for students (Sotomayor et al., 2022, p.7). Students commuting to urban

universities may face more challenges than those living on or near campus. A commuter student may face several challenges that eat into their time, including family obligations, work, maintaining personal relationships, time management, other financial obligations, academic responsibility and the challenge of becoming acclimated to the university environment (Negga et al., 2007, as seen in Newbold, 2015, p.81). A study conducted on academic performance, employment, and levels of involvement found that respondents who were commuter students worked an average of 20.43 hours per week (Alfano & Eduljee, 2013, as seen in Burlison, 2015, p.28). A different study found that students living off campus worked over double the number of hours as students living in residence (Furr & Elling, 2000, as seen in Burlison, 2015, p.28). These time constraints can limit students' chances to become involved in campus activities (Burlison, 2015, p.28).

Commuter students all have coping strategies to combat these time constraints and stresses, whether they can identify them or not. Active coping strategies include planning, support and time management (Giancola, Grawitch, & Borchert, 2009, as seen in Newbold, 2015, p. 82). Passive coping involves psychological and emotional coping to modify an event's meaning or downplay the implications of such events (Newbold, 2015, p.83). For example, a study on commuter students and coping behaviours found that students using active coping would skip events, meetings, and classes compared to passive strategies, where a student responded that they prioritize and organize events through a broader perspective (Newbold, 2015, p.83). The research also pointed to how students who experience stressors can still achieve educational success if provided with the right support (Newbold, 2015, p.84). Students' success can also be affected by the flexibility of their university and the ability to offer education in a variety of different formats (Lowe & Gayle, 2007, as seen in Newbold, 2015, p.84). Overall, students, specifically commuter students, face challenges and a hidden curriculum in pursuit of higher education. At the same time, the future may look bright for graduates, but what is important is that current students need resources and support to ensure the successful completion of their education, instead of neglecting them due to perceived success after their education is complete.

## **2.4 Community Participation**

The right to the city theory emphasizes that people should have access to the city and the ability to change the environment and aspects of the city if they want. Community participation is important for communities and planners. Participation allows for citizens' presence in decision-making and the expression of their desires (Ostad-Ali-Askari et al., 2024, p.177). Within transportation planning, there are often decisions that users question when interacting with transportation, and they can feel distant from decisions that are being made. Within the United States of America, the people who plan transit are legally required to seek community input, but finding and speaking to specific communities can be difficult (Townsend, 2021, p.3). Public transportation users are from different

backgrounds and lived experiences, and participation is insufficient if not all of the public has an opportunity to share input or feedback (Townsend, 2021, p.3). Relaying this to transit equity where certain groups can be more affected by poor mobility, could be the same group of people who are hard to reach, such as low-income individuals, youth and coloured persons (Giering, 2011; Transportation Research Board, 2009, as seen in Townsend, 2021, p.3) This can lead to voices from disadvantaged groups often times being left out of planning discussions (Brenman & Sanchez, 2012; Villanueva et al., 2017 as seen in Townsend, 2021, p.3). To make urban life and mobility equitable, everyone in discussions needs to be a part of the planning discussion in order to allow for the appropriate allocation of planning efforts.

### **3. Data and Methodology**

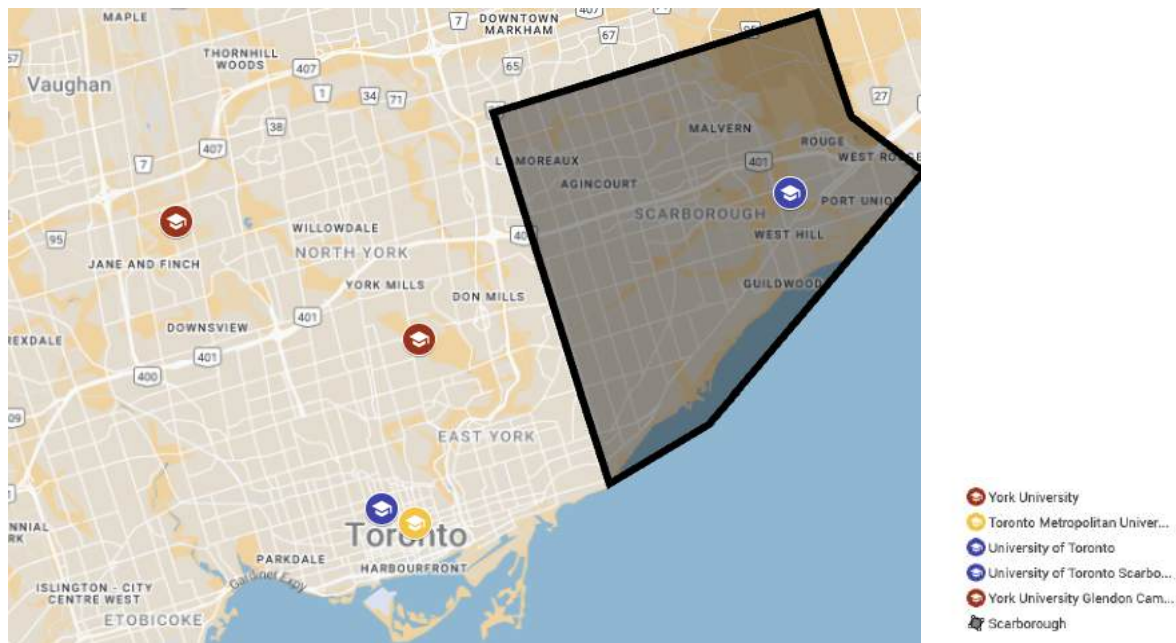
The research aims to answer the following research question: How does public transit affect Scarborough's residents' access to university education? A qualitative research approach was adopted. Semi-structured interviews with students who live in Scarborough and commute to university were conducted, providing an understanding of the supporting context and lived experience surrounding the community of Scarborough. Student participants were chosen over interviewing professional planners because their lived experiences aligned more closely with the research question. The qualitative research approach was selected because it allows the researcher to understand and speak with students who have valuable lived experiences to express their thoughts and feelings towards the research topic.

One definition of qualitative research is “the systematic collection, organization, and interpretation of textual material derived from talk or conversation. It is used in the exploration of meanings of social phenomena as experienced by individuals themselves, in their natural context” (Malterud, 2001, p.483, seen in Grossoehme, 2014, p.109). Using different empirical materials, qualitative research can study moments or meaning in individuals' lives through case studies, personal experiences, life story, observation and interactions (Denzin and Lincoln, 2005, as seen in Aspers & Corte, 2019, p.142). Qualitative methods are best used to answer questions or study things which are about opinion, experience and perspective (Hammarberg et.al, 2016). Qualitative research is used when a research question is not able to be counted or measured (Hammarberg et.al, 2016). The benefit of using qualitative methods is that the research can be flexible and allow for a wide range of viewpoints, which can produce detailed data on perspectives (Rahman, 2016, p.104), which can help the researcher better understand complex issues. Disadvantages of qualitative research often surround the complexity, data interpretation, amount of time it takes, researcher impartiality and knowledge, participants not representative of the whole population, ethical concerns, and extensive preparation (Queirós et.al, 2017, p.378-379).

### **3.1 Educational Institutional Selection**

The researcher has selected three universities to understand the destination accessibility of students from Scarborough. The three universities are York University, the University of Toronto and Toronto Metropolitan University. The reason the selection was limited to these three educational institutions is that they are the three largest universities located within Toronto. All universities selected have a large student pool, which would make contacting participants more efficient. The selection of higher education institutions being limited to these three universities is due to the limited amount of time and resources that are available for this research. It is important to note that York University and the University of Toronto have satellite campuses also within the City of Toronto. These are the Glendon campus for York University and the Scarborough campus for the University of Toronto. Students from satellite campuses were allowed to participate, although for the University of Toronto, the research was only able to get students from the Scarborough campus to participate and no students from the downtown campus. The unexpected lack of participation from the St. George campus constitutes a limitation of the research, but also benefited the research, as it highlighted destination accessibility better across the whole City rather than using two schools with downtown campuses. University of Toronto St. George's campus, located at 27 King's College Circle and Toronto Metropolitan University, located at 350 Victoria St, have somewhat similar student commutes from Scarborough. Isolating the Scarborough campus made it so that the research has three geographically unique destinations to study. York University is located at 4700 Keele St in the northwest of the City. Toronto Metropolitan University is located downtown, and the University of Toronto Scarborough campus is located at 1265 Military Trail in the southeast of the City. Using three unique commuting destinations that are not close to each other will give a better representation of overall mobility in Toronto from Scarborough, compared to 2/3rds of the participants' pool having a similar commute downtown to either TMU or UofT campuses.

**Figure 11: Map of Educational Institutions and Scarborough**



Source: Google My Map, Greg Bascombe, 2025 C.

### 3.2 Interviews

Recruitment of the participants for this research was mainly conducted using convenience purposive sampling. This sampling technique combines two methods, convenience and purposive sampling. Convenience sampling is a data collection process which utilizes a sample which is readily available to the researcher (Golzar et.al, 2022, p.73). Purposive sampling is specifically picking a participant due to qualities the participant has (Etikan et.al, 2016, p.2). In combination, the sample method allows for ease of access to the participant pool based on whether a participant meets a certain criterion. The chosen sampling method enabled the researcher to identify participants who met the criteria and responded to the recruitment materials.

The majority of participants were recruited through an online post on the social media app LinkedIn. The LinkedIn post included a recruitment flyer and a brief description of participant criteria and expectations. The criteria were that a participant had to be an active student at one of the following universities, York University, University of Toronto, or Toronto Metropolitan University. The student must also live in Scarborough and consider themselves a commuter student.

Data was collected using semi-structured video interviews on Zoom. Transcripts of interviews were captured via Zoom. Interviews lasted on average between 20 and 30 minutes. Appropriate research ethics, including a consent form, confidentiality, and voluntary participation, were ensured. The Delegated Ethics Review Committee approved the research, and the researcher complied with all guidelines and rules set out during the research process involving human participants.

The interview questions were designed to prompt participants to share their lived experiences. The creation of interview questions was designed to have three main themes. The themes are, one, what is their current commute, two, the effect of their commute on academic life, and three, on improvements and recommendations in transportation access for students. See interview questions in the Appendix.

Once all student interview data was collected, the auto-generated transcripts were manually edited to ensure an accurate recording of dialogue throughout each interview. The researcher used deductive coding in order to categorize the responses. Deductive coding can help focus the analysis on topics or issues which are known or prominent in existing literature (Linneberg & Korsgaard, 2019, p.13), which can help narrow down research. In comparison, inductive coding can be complicated and lack focus (Linneberg & Korsgaard, 2019, p.13). Within inductive coding, the code and research are directly derived from the data (Linneberg & Korsgaard, 2019, p.12). For example, for inductive coding, the researcher develops codes based on data from participants, while in deductive coding, the researcher has codes already created based on prior literature. Deductive coding was more appropriate as the researcher had identified salient themes on the topic from existing studies.

#### **4. Research Findings**

The research data was collected through ten interviews with active students who reside in Scarborough. Eight of the ten students were undergraduate students, while two were graduate students. Three students attend York University, five students attend Toronto Metropolitan University, and two students attend the University of Toronto Scarborough campus. The student participants come from varying programs. The ten students all said they rely on public transportation as their primary mode of accessing their educational institution. Students spoke mostly about their lived experience on public transit in relation to the impact commuting has on their lives and academic journeys. Interestingly, students shared similar feelings and sentiments about destination accessibility, despite the three universities involved in the research being geographically far away from each other. The similarity in answers can stress an overall issue of destination inaccessibility rather than just an isolated issue.

The findings are grouped into four topics, which were public transit, student, Scarborough, and their improvements or recommendations. The public transit section refers to findings related to any positive or negative experience, emotion or life outcome due to public transit in Scarborough. The student theme results refer to any response relating to student life or activities, and any overlap between being a student and using public transportation from Scarborough. The Scarborough section refers to the results of the overall sentiment of the community of Scarborough, its people, community

or general thoughts and ideas about the area. Lastly, public transportation improvement and recommendation results are when the participants expressed an improvement which would help their commute or destination accessibility in general. The last section will be featured in the recommendation section, this way, the research can put forward direct recommendations based on what students would like to see improved or changed.

**Figure 12:** Chart of Student Participants and Identifiers

Identifier	School	Level Of Study
A1	York University	Undergraduate
A2	York University	Undergraduate
A3	York University	Graduate
B1	University of Toronto	Undergraduate
B2	University of Toronto	Undergraduate
C1	Toronto Metropolitan University	Undergraduate
C2	Toronto Metropolitan University	Undergraduate
C3	Toronto Metropolitan University	Graduate
C4	Toronto Metropolitan University	Undergraduate
C5	Toronto Metropolitan University	Undergraduate

**4.1 Student Public Transportation Benefits**

Students from all three schools expressed their appreciation of the TTC and public transit in its ability to increase their mobility and access to locations or destinations. Student B1 suggests that the TTC is well connected to places in Toronto, and that they appreciate that they do not have to drive, which helps with their personal safety in regards to physical injury related to personal vehicle accidents.

Other students share the same sentiment of their appreciation for public transportation, which takes them where they need to go. Public transportation is very accessible to anyone and provides the ability to physically access any location. Some students view public transportation very positively.

Toronto is lucky to be so publicly accessible, and it can benefit different groups of people, such as people with disabilities (C5).

A common theme amongst students who expressed benefits of increased mobility and destination accessibility is the quality of public transportation near their location. For example, Student A1 suggests that their area has better public transit compared to other neighbourhoods, but does not specify why that is. Student A1 also expresses their appreciation of public transportation for taking them to destinations such as the Mall or Kennedy Station. The theme of locality in relation to public transportation in Scarborough was reflected by other students. The theme of locality was brought up again when student C3 says,

In terms of public transportation, ever since the Agincourt Go train has been built. I find that my commute to downtown has been a lot easier, because it's just like a 10-minute walk to the GO train.

Student C3 suggests that since the Agincourt GO was built, they have an easier commute due to the distance from their house, as well as a more straightforward commute. Student C3 also explains how different destinations have different levels of accessibility through ease of use. Student C3 expresses that attending UofT for their undergrad was an easier commute than their current commute to TMU. Even though located in generally the same area, destinations can be harder to access according to students, harder commutes leave them mentally drained and super tired (C3). Overall, students promote the benefits of public transit and how it is accessible for people, but also understand that different destinations may be more difficult for them to access.

Some students also expressed gratitude for having public transportation to use instead of having to figure out other modes of travel, which may cost more money or be more complicated. Students, particularly, were thankful that the public transit in Scarborough allows for mobility without having to pay for a car and other associated costs, plus the safety benefits involved with taking public transit. Benefiting students because they do not have to pay thousands of dollars and worry about parking and accidents when driving downtown, and for some students, public transportation is more convenient in their area (A1).

Students also reiterated how the origin of travel and the location they are based at can play a role in how convenient public transit is for them to use (A1). Students from different schools share a similar feeling of a financial benefit from using public transit over other forms of mobility. Student B2 agrees but also suggests that affordability is dependent on the individual when they say, "I think the best benefit would just be, it's not super expensive. It's affordable for me. I'm fortunate that I can afford it. It's not a really big problem for me". Student B2 suggests that there may be part of the

population or other students who may struggle with the financial aspect of commuting on public transit. Students also express ease of use, other than just financial reasons, when using public transit to reach their educational destination. Ease of use in terms of the fact that sometimes it is faster to use public transportation to get downtown, except for certain times of the day (C5). Students together appreciate the convenience, flexibility and financial savings of public transportation, but also recognize how experiences could be individualized.

Students also shared other reasons in which they personally benefit, or expressed unique benefits of public transit to access their educational institution. Some students expressed an emotion of relaxation when using public transportation, stating they do not have to be so attentive when using public transportation compared to other forms of mobility (B2). While highlighting the relaxation feeling they feel on public transit, student B2 did acknowledge feeling unsafe getting to and from forms of public transportation during the nighttime. Students expressed different activities that can occur on a mode of public transit, a student identified increased social friction between themselves and other users on the bus. Students A1 and C5 shared that they enjoy their commute because it gives them time to catch up on school and relax (A1), it gives students time to plan out their day, study, read up or finish work on big days (C5). Using student commute time for productive work illustrates a benefit of using public transportation rather than other forms of mobility that require full attention.

Community social friction was brought up as well, student C5 said, “I always end up meeting people I know on the bus because Scarborough is so small and it’s such a close-knit community”. The idea of even combining social friction with catching up with school was expressed. A student expressed enjoying and looking back fondly on the time when they would review and quiz friends on the bus during the commute to campus for a test (C2). Students also expressed feelings of safety as well as an appreciation for the fact that using public transit is better for the environment. While it is important to note that not all participants shared these opinions, students did share a sentiment that public transportation gets them where they need to go, and some have been using public transit as their primary mode of mobility since they can remember.

## **4.2 Student Public Transportation Concerns**

One issue that was brought up by participants was the issue of safety and maintenance of using public transit to access their educational institutions. As stated in the literature review, safety on the TTC has been a major issue for the city, and therefore, the city has made an effort to try to combat the safety issue (Ide, 2024). Regardless, the safety concerns have been shared by the students in different ways, with student B2 suggesting they don’t feel safe getting on a packed bus or taking public transit late at night because of the stories they have heard on the news about the TTC. Student C5 shared

concerns over safety as there are “a lot of safety hazards”. Safety issues were expressed by several students, but combating the issue of safety is complicated. Student A1 explained how it can be complicated. On one hand, A1 recognized that they feel as though there is no support or proper security, but later highlighted that having a physical deterrent, such as more policing, can be an issue, and situations can get more complicated when police are involved. Recommendations of community groups or other solutions have been suggested. Clearly, safety is affecting students on public transit, but students are also wary of other social issues, such as policing, which can make individuals feel unsafe during a commute. Students also express that they do not feel safe walking home at night or using public transit during that time as well, and may forgo taking classes or going to events during the night.

Interviews with participants occurred during the winter, and a current issue was brought up as a very prominent safety issue, which was winter maintenance. Students felt as though not enough was being done to clean up snowstorms in order for them to safely use the transit system and access their educational institutions. Many express first and last-mile issues of accessing bus stops in the wintertime due to the weather. A student explained how poor snow plowing and narrow side walks due to a lot of snow made it difficult for them to walk home, so much so that they felt like they were “snow trucking” and “could not even see the pavement on the sidewalks” (C3). Other students share concerns over plowed sidewalks, while not necessarily part of the current research, sidewalks are crucially important in public transportation to give people an opportunity to access other forms of mobility, commuting starts not at a bus stop, but at the point of origin, such as a home. Sidewalk clearance also has a direct effect on the onboarding process on many buses. When snow is on the ground, which makes buses further away from the curb where people have to jump or step onto the road before boarding, students expressed how it is okay for them, but recognizing that they have no mobility issues (B2). Student B2 points to an important issue of how public transportation can be more limiting during the wintertime for certain groups of people who may struggle to physically access public transportation due to personal mobility concerns caused by poor maintenance, and therefore, potentially limiting their mobility.

Students shared that when using the TTC, they feel as though there is always a delay or service issue with the system. While transportation delays do happen, students feel as though there is always an obstacle when trying to use public transportation to reach their educational institution. Delays make planning students’ days or commutes difficult. Student C4 stresses the irregular nature of the bus system when they say, “One of the main things I face, challenge-wise, is making sure the buses come on time because usually it’s delayed. Like, even today, it was delayed by 10 minutes.” The transit unpredictability can lead students to compromise on which destinations they access. A student agreed with random delays and closures interrupting their mobility, and that’s why they usually stay in

Scarborough and avoid going downtown, so much so that they will try to find alternative destinations in Scarborough (B2). Highlighting how students are geographically limiting themselves to destinations due to concerns of being stuck and unpredictable delays. Students can miss opportunities because of delays, for example, student C3 shared an experience trying to get downtown for a job interview, even though they had left early, the train service was cancelled, and they were forced to take an Uber downtown. These experiences show the unpredictable nature of how students feel when commuting from Scarborough.

One major theme that came up across several interviews is how a lack of consistency, poor information and unreliability of the system were very frustrating for students who commute to their educational institutions. Students emphasize the inaccuracy and difficulty of using the TTC app as well as the SMS service. The TTC allows for text messages to a number with the transit stop you are at, and in return, you will receive arrival times for the next TTC vehicle (TTC, n.d. B). Many students point out key issues with the SMS service that frustrate them. Some students used the SMS service and say the service is not accurate, and sometimes buses do not even show up. They also use the transit app, which they have since deleted because “it was so inaccurate sometimes” (B2). Students also reveal perceived issues with the app and SMS service, which cause frustration, such as there is a limit of six times you can message the text service, and after six attempts, you will stop receiving updates. The maximum of six message features can limit information for someone using public transportation, and it is important to note that this service is beneficial for individuals who do not have data or Wifi when commuting. Overall, students find the transit app and texting service to be very inaccurate, which can demotivate them from using public transportation. Student A2 explains how it demotivates them to use public transit. A2 said, “I stopped relying on the bus time because it’s always so unreliable.” Now, they just Uber to the station because of the unreliability of bus times, and Ubering adds up financially for them

An issue students brought up in destination accessibility through public transportation from Scarborough is the perceived level of busyness, slowness and other costs such as time and money. Students report that during morning and afternoon rushes, buses are very full and that wait times can be extended. During morning and evening rushes, the subways are so full that students feel like sardines. The issue is compounded when there is a subway delay or closure (C5). Wait times and delays are not the only issues with peak times, students report that due to how busy it is, they feel less safe, which is exacerbated by the fact that the buses are already full when they arrive. Student B2 says, “I would even take an earlier bus just to avoid the peak times and how crowded the buses would be.” B2 elaborated on safety concerns when they said, “It’ll be so crowded that I don’t even feel safe getting on it”. This puts B2 in a tough situation to guess whether to wait for the next bus for their personal safety or if they should forgo the safety concern in order to make it to class on time (B2).

Students rely on these buses and other forms of mobility, so they feel forced to endure these conditions to be able to reach their destination on time.

Some students also do not feel as though public transportation from Scarborough is as efficient as it could be. Stating issues of total distance and time, along with compounding factors such as line 3 being derailed, leaves a student feeling limited in their mobility. Students give examples of needing mobility to attend events with friends or job opportunities in the city, but have to ask themselves if the commute is worth it (A3). Students can “feel less inclined to apply for” (A3) jobs if the commute is going to take them multiple transfers. They feel limited in accessing part of the city unless the trip is worth it to themselves, which they have to compare if the multiple hour commute is worth it for this event (A3). A student demonstrates even when they prepare and leave early, the unpredictable nature of public transit makes students feel the need to allocate more time than needed to get to campus. Student C1 states,

My exam, I was late by like an extra half an hour when I allotted it two hours to commute. Even though it's supposed to take an hour and a half. And I guess you could have said I could have come earlier, but my exam was really early in the morning it was like eight or nine in the morning. So I really did not want to have to wake up over two hours in advance just to make it in class.

Student C1 explains how commuting from Scarborough can eat away at student time. In order to be on time for an exam, they have to leave hours before, which affects when they have to wake up and when they have to sleep the night before, all because of how long and unpredictable the commute may be. Overall, the sentiment given by the students is that they are frustrated by wait times, full buses, and unpredictable delays.

The Greater Toronto Area continues to grow, which makes planning transportation that much more of an undertaking. Students recognize distance as a fixed issue, but also express challenges in commuting between regions, Student C1 suggests that transferring to YRT buses, which are in the York Region right above Scarborough, can be difficult because the buses never align.

Students identify the lack of consistency in transportation, as a student from the University of Toronto recognized that there is a bike lane near their campus, but it is not connected to the ones near their house. Lack of consistency and poor planning may lead to mobility justice concerns such as first and last mile issues, student B1 addresses this directly when they said, “I don't really quite know how to explain it, but like, I'm in a neighbourhood away from like major roads, I have to walk quite a bit to get to a stop.” This suggests how students are seemingly unaware of first and last-mile issues but are

affected by them enough to recognize the distance as an issue. Other minor inconveniences that occur in transit can include bus wifi and ports not working, which is important as many students reveal that they use their time on transit to study since their commutes are long. Students also witness TTC staff arguing over fares, which they say can negatively affect the day for other riders.

#### **4.3 Public Transportation Impact on Academic Journey**

Many students reflect on the time management they have to have in order to complete their schooling. Long commutes, busy buses and other responsibilities can leave students feeling short on time and more frustrated with public transportation. Students feel extra pressure to access campus for a specific time, as well as late-night commuting. The reason they feel like this is that they find commuting inconsistent, which makes time management difficult. A student featured the varying time in their commute to campus, which can be twenty minutes or upwards of two hours (A3). The students' variation in commute time can make allocating time for other responsibilities a challenge. Several of the participants revealed that they leave very early on the day they have a test or exam due to the unpredictability of when they will arrive on campus. Student C1 shared an example of commuting on a day they had an exam, where they allocated 2 hours, which is more than enough to commute to campus and were still late, they emphasized that snow played a role in that. Students get nervous about getting to school on time for days they have an exam or presentation, public transportation is not their first choice to access campus during those days, and they combat this by arriving hours early (B2).

Increasing travel time may lead students to neglect or give less time to other aspects or responsibilities in their lives. Studying is important in post-secondary education. Long commutes and delays can limit the time allotted for studying, as well as impact their mental and physical health. Student C1 feels like their education takes a lot of their time, and they already do not have enough time for themselves (C1). Compounded by a 3-hour commute, this student gets exhausted and explains how having to think about the commute home is annoying to them and tiresome (C1).

As Sotomayor et.al (2022) highlighted, students attending urban universities have responsibilities that go well beyond the bounds of school and their syllabi. Many students reported having to work a job, part-time jobs are common among most participants. Money for students is needed not only for them to live but also to pay for tuition, which is an expense that non-students do not have to pay. Student B2 says, "Probably having a part-time job so they [Student] can afford, like, the little things like that coffee on campus". Also, "being able to afford transit comes from having that part-time job so that we are not dependent on other people funding us" (B2). While part-time jobs help support students financially, a job is just one of many responsibilities students have. Student A3 summed up student responsibilities and commuting when they said, "just feels like a lot of time wasted, it's like four hours

in a day. There's so much I could do in those four hours. And that feeds into like other responsibilities students have." Student responsibilities include caring for ill family members, part-time jobs, student social lives, cooking and cleaning (A3). Students have many responsibilities they have other than schoolwork, but there are school responsibilities students must attend to as well. Some students point to the fact that they had Co-ops or student clubs they helped run, which take up a portion of their personal responsibilities. Overall, students have busy schedules, and adding a long and unpredictable commute can take away time from other responsibilities.

Some commuter students feel at a disadvantage compared to students who do not commute. The reason given for feeling disadvantaged is the lack of access they have to school resources and events. Many students highlighted that events taking place at night may be more limiting for commuter students. They felt as though their social lives with other students were sometimes limited due to their commute, and several participants expressed feeling limited in attending social events. A student expressed that if they want to do activities during the nighttime with friends, they have to be wary of when the last train leaves during the night, plus they do not feel safe walking from the stations during the nighttime (C3). Therefore, limiting them due to safety and time-of-day concerns. Student A1, who is part of running a club on campus, recognized the difficulty of getting participation at a commuter school during the night for similar reasons as many other students listed. Student events being held at night are potentially one reason why people are not coming to their events (A2). Once the student moved the event to during the day, they have had a lot more engagement over the past couple of years. What is clear is that long commutes, safety concerns and time of day play a role in commuter students' destination accessibility from Scarborough, with these issues being more apparent during the nighttime.

Students also gave examples of real-life opportunities they had to turn down due to poor destination accessibility. While not school-specific, student C2 gave an example where they had to turn down co-op and internship opportunities because they were on the other side of the city, as well as outside of the City of Toronto. While opinions vary, students do provide examples of how their student life and ability to attend events or opportunities can feel limited due to time constraints and other issues surrounding public transit.

At the root of this research is how public transportation affects access to education, as well as whether it impacts education quality. A student raised many impacts that public transport can have on their academic success. A non-direct impact is the ability to reach campus on time consistently, living far from campus and commuting can have an impact on students attendance for multiple reasons. When you are late, the professor may mark you late, which can impact you negatively (A2). The compounding effect of class timing and distance to class can also make students think if they want to

go through “the whole hassle of travelling commuting for two hours” (A2), when also battling bad weather. Students, therefore, may forgo attending class and in turn have as it has a “effect on your academic success because you’re missing the classes” (A2). The example A2 gave seems to affect many students, as A2 highlights that sometimes they have never seen their friends in class because they are also probably commuting and would rather do school from home, making it not worth the commute. Being late may not necessarily be a public transport issue, but students have expressed delays, other responsibilities and how their time gets crunched commuting. It is reasonable to assume that a long commute can impact one’s attendance. Some students actually illustrated that public transportation has benefited them more than just physical access to school, a few students expressed doing school work or catching up on public transit during their commute. The idea of studying on public transit has been contested by other students, such as C4, who says, “you can’t really study on a public transit because sometimes the buses do get really packed”. Commuting to school cuts into students’ time for preparing for or studying, because “You want to study for midterms or finals, but you have less time to prepare because you also have to consider your commute to school” (C4).

Many students share the compounding effects of the other responsibilities they have, plus the fact that they endure public transit issues, which make them feel as though their academic success is being impacted. Student A3 even expresses how cramped a day can be, which can be tracked to the day before when they say, “100% for me in terms of public transit impacting my academic success because as a grad student, obviously, there’s just so much, there’s a lot to do.”. Combined with planning a commute and other life responsibilities, the commute timing is tied to factors such as when these students go to bed, depending on when they want to get to campus the next day (A3). Commute timing can be affected by other factors, such as a part-time job that may run late into the night, limiting the amount of sleep one may get. Students’ other responsibilities can make the travel for education potentially not seem worth it; student C5 shares, “I know people who will just skip one-hour lectures because they don’t want to. If it takes them an hour and a half to commute to school, that’s like three hours of commute just for a one-hour lecture. It doesn’t really make sense. Plus the cost as well.”

#### **4.4 Public Transportation and The Community of Scarborough**

Students recognize the importance of public transit for the community of Scarborough, and many students emphasize how community members use the system on a daily basis. Student A1 says,

I think (public transportation) is very helpful for not only seniors but also for folks who have disabilities and also for kids and high schoolers, I think it helps like every single marginalized community. I would say it is pretty positive, honestly.

While students do recognize the importance of the system, other students speak on how public transportation is viewed by the community. While students see the value in public transportation for the community, there is also the issue of the community not valuing public transportation because, potentially, we put too much value in making roads accessible to cars rather than pedestrians and buses (B1). A student thinks that people in Scarborough may think of public transit as inadequate and that some may not even consider it as an option for them (B1). Students feel as though public transportation may not be suitable for the area's needs, and therefore, the broader community may look down on public transportation. Student C4 says, "I'd say public transportation in Scarborough is actually kind of looked down upon". Might be looked down upon because there seems to be more development in other areas of Scarborough in terms of public transportation, which makes certain areas feel less valued (C4). The idea of slow development was reinforced by projects such as the Eglinton LRT, which started when a student was in grade one, and now they are in their third year of university (C4). The idea of lack of validation and trust in projects is a theme amongst another student who feels as though the lack of progression in Scarborough infrastructure makes community members feel left out. Student A 3 stresses these feelings when they say,

The Scarborough LRT that was proposed by David Miller back in like 2010, Transit City, was actually supposed to be just outside of my house. And so when that plan was scrapped in 2014, 2016 or whatever. That was a huge...blow for myself and people in my neighbourhood. And so whenever I have transit issues in the city, when I'm commuting, I always think back to, if the LRT wasn't scrapped, I wouldn't be in this situation right now.

Overall, students recognize the value of public transportation but feel as though the broader community looks down on public transportation due to the quality and perceived lack of improvement in the community of Scarborough's mobility.

## **5. Discussion**

The research was aimed at investigating how public transit affects Scarborough residents' access to university education, the data that was collected answers the research question and gives insight into lived experiences and the main effects that the participants feel when commuting to their respective universities. The term destination accessibility can be subjective for each individual, as seen in the findings, and the word symbolizes how the ability to physically reach the destination does not mean that the destination is accessible to an individual.

## **Public Transportation**

What is clear from the findings is that students rely on public transportation for more than just their commute to school. Many use public transportation for everyday needs, including attending social events and work. Students expressed their appreciation for public transportation and understood how important mobility is for themselves and the community, while at the same time discussing how mobility in Scarborough can negatively affect them. Many students who spoke positively about public transportation reflected the fact that it could help members of society with poor mobility, such as people with disabilities. What was also a common theme in students who identified increased mobility is that location matters. Some students spoke highly of public transportation since it is close by, and other students mentioned how their area was better than other neighbourhoods in terms of mobility. In contrast, other students mentioned how planned infrastructure never came into their neighbourhood, which would have made their lives easier. The idea of proximity to public transportation is clear in the fact that proximity for the participants can positively affect their mobility and view on public transportation. The idea of proximity to public transit is also apparent when a student gave an example of first and last-mile issues, where students feel as though a transit stop is far away from them, which can make their commute just that much longer. First and last-mile issues are more of a problem when it is not an able-bodied person. Scarborough's spread-out built form also increases distance, which in turn increases travel time, which can affect students' time management, which may negatively affect their academic success.

The research emphasizes issues and themes which participants shared had a negative impact on them in terms of limiting their destination accessibility to schools. The four main themes found in the findings were safety issues on public transportation, service issues or delays, lack of reliability on transit apps and information systems, and how public transit can be slow, busy and take up a lot of time. Overall, these research findings stress how important safety and maintenance are for riders. The findings identify many different fears students have when commuting, from students feeling unsafe getting on a packed bus to students changing their schedule around so they do not have to commute during the night. Commuting can also be dangerous during the winter months when snow is not removed properly. Overall, students feel that safety is a real issue and would like it addressed on many fronts so they feel more comfortable commuting to school. Safety issues impact students' destination accessibility because if students are feeling worried about their safety or the time of day they travel, they may be inclined not to make the trip and miss out on the class or event. Previous studies also reveal that fear affects mobility and travel patterns (Loukaitou-Sideris, 2016, as seen in Ceccato & Loukaitou-Sideris, 2022, p.28), which can potentially affect women more than men. Female riders tend to view public places and public transit as sources of fear and harassment, the feeling of being unsafe can have an impact on a female's ability to participate in the workplace or other aspects of public life

(Loukaitou-Sideris 2009, as seen in Noor & Iamtrakul, 2024, p.552). The findings and literature align to suggest that issues of safety on public transit can hinder one's ability to reach one's destination.

The research found that all participants had the same opinion about the frequent service issues and delays that occur on public transit. The service issues and delays are mainly unexpected, which can cause major issues for students trying to manage their time correctly. The findings suggest that some students may try to attend events only near their homes. When a student is travelling far, they may have to take different forms of mobility on occasion to be able to access important opportunities, such as Uber. Service issues and delays can impact students on many levels and make accessing their university more stressful and difficult. Service issues in Scarborough are demonstrated by the Line 3 derailment, which caused mass delays and service issues. The line 3 derailment shows the lack of new infrastructure, to the point where the line became increasingly unreliable and expensive to maintain (Bow, 2024). Similar to the findings of this study, a research study done in Munich, Germany, found that mobility-on-demand services increase if public transit delays increase (Martin et al., 2021). The study done in Germany also found that over ten months, the mean for carsharing went up to 13.5%, and taxis varied by up to 52.1% when there were transit delays (Martin et al., 2021). Changing mobility last minute can be an issue, as it is an expense that some may not be able to afford. People who may not be able to afford public transit may endure mobility justice due to financial concerns (Sheller, 2020, p.13). Overall, delays put students in a tough situation where they may need to pay extra when there is a delay in getting to campus for a test, or some students may even decide not to go to campus on a regular day. The findings suggest that many of the students do plan to leave early when they have a big test or exam at school, but even then, some students gave a response that, even when leaving early, sometimes they are late to campus due to service issues.

A significant finding from the research came in the form of transit apps and information reliability. Students expressed many issues with the transit apps and the overall reliability of information from their transportation methods. Many students understand that rushes occur during the day, but feel like that information may not be translated to them, which can make a commute frustrating. Information is key for students with tight schedules, and they rely on transit information to ensure they get to educational destinations on time. Having a limit on SMS bus arrival time limits students' access to information, which would benefit them. These apps, according to students, are often wrong, which can delay their commutes. The idea of limited quality information reinforces the overall idea of destination inaccessibility, while the idea of poor data can make transportation feel more inadequate in Scarborough than it is. Buses that bunch or run off schedule can make a student feel less inclined to use public transportation. An improved method and more reliable information would make navigating the city easier for students.

Common in a major city, a finding in the research was how busy, slow, and how much time penalty students from Scarborough have to endure to access their educational institutions. Overall, the research found that all areas and schools are physically accessible, but issues of overcrowding on buses, seemingly unpredictable schedules, poor maintenance, and safety concerns have left Scarborough students feeling as though their commutes are much longer than needed. Granted, some students did express an appreciation of public transportation regardless of their critique, therefore potentially showing that mobility is highly regarded amongst those students. Students who endure these unfavourable commuting conditions may be more inclined to miss classes or not even take a certain class if it is at a specific time they know would be busy. These conditions can also make the user perceive a destination as less accessible in the city because of the time cost they will have to endure to get to a location. Having crowded buses can have many impacts on the public transportation network and individuals. A study on crowding in public transportation found that having a higher average occupancy level can increase the probability of not being able to pick up other passengers at the next stop (Tirachini et al., 2013, p.49). A crowding effect in a public transportation vehicle can have an impact on personal health and well-being, such as stress, anxiety, safety risk, and exhaustion, which can lead to potential loss of productivity in their work day (Tirachini et al., 2013, p.49). These factors can have a large impact on students who need to perform in their day-to-day lives, as many have crunched schedules, and being exhausted from commuting can affect their studies and other areas of life negatively. Overall, students from Scarborough are physically able to reach their educational institution, but the compounded effect of students having many responsibilities along with public transportation concerns, which can extend or stress a student's day, can make accessing educational institutions difficult for students from Scarborough. When using the word accessing in this sense, the term accessing is not physically accessible, the term encompasses all the surrounding issues with accessibility in combination with how public transportation benefits or holds back commuter students.

### **Students Impact**

The second aspect of the findings involves the academic impact that public transportation can have on students commuting from Scarborough. While destinations are physically accessible, it is also important to consider how travel can hinder the student experience and success, rather than just overall physical mobility. The research found that there were a few impacts which public transportation had on students' academic journey. Overall, most issues stem from the time taken out of their days to commute. Many students found it difficult to find time to study while juggling other responsibilities, along with a commute and academic responsibilities. The findings suggest that some students do not feel as though the commute is worth it to campus just for one class or to study. What is evident from the findings is that commuting has a compounding impact on students when it comes to their academic success. A study was done on student commute time, university presence and academic achievement and found that students with longer commutes are on campus fewer days a week than students with

shorter commutes, but they tend to stay longer on campus during these days as a preference and if the university offers flexibility (Kobus et al., 2015, p.136). Kobus et al aligns with student A3's findings, who said, "Because of how long my commute takes, I try to maximize how long I am on campus, and so that can be anywhere like eight hours of a day.". Kobus et al found that the average time on campus amongst all students was similar. The study did, however, reveal how academic achievement can be impacted via longer commute times, students with a one-standard-deviation increase in commute time reduce the average grade by one-third of the standard deviation. (Kobus et al., 2015, p.136). They found that there may also be a direct negative effect due to travel fatigue (Kobus et al., 2015, p.136). The study at hand shows the importance of university programming flexibility as well as improved mobility, which can help students feel less exhausted from commuting, which can have an impact on their academic success.

While public transportation may not affect students' total time on campus (Kobus et al., 2015, p.136), this study's findings show that students can feel limited in non-school-related events, such as networking events or even social events with friends. Students feel limited because of the planning, time and safety concerns a student may have about commuting to campus or other areas of the city during their non-regular school commute. Many of these events are at night, and our findings highlight that students have a heightened sense of lack of safety with public transit during the night. The findings also show that one participant who was an organizer of a school club recognized that their low turnout might be because of the time of day the events were held. Students who commute from Scarborough should feel as though they can have the ability to reach any destination without having to hesitate over public infrastructure concerns, such as the lack of buses or the safety of public transit. Living far away can cause an uneven playing field and act as a hidden curriculum for students when they have to contend with factors such as distance, time, cost, loss of social life and missed networking events (Sotomayor et al., 2022, p.7). This results in students' passive coping by modifying an event's meaning or downplaying the implications of such events (Newbold, 2015, p.83).

## **Limitations & Future Research**

There are some limitations in the research. The first limitation is the sample size, while the ten participants are appropriate for the research on lived experiences, the sample size may not allow for diverse experiences of students from Scarborough. The second limitation identified was the scope of the research participant pool, all material and recruitment information were posted on the internet and electronic devices. There may be a limit on students who do not have regular access to electronics or the internet, even students with internet access may not have been able to access where the recruitment posts were made. The third limitation is the potential dominance of negative experiences. Students who have had a bad experience or think negatively about public transit in Scarborough may be more likely to respond in order to share their issues and experiences because it is affecting their lives.

Students may also exaggerate their lived experiences due to a negative impression of public transit, as well as a cash incentive for participation. There were instances of students asking the researcher, “Is that what you were looking for?”, At the end of their responses, questions were asked of the researcher, inquiring to see if they said the answer the researcher was “seeking”. The researcher was not seeking any particular answer or opinions, but learning about the experiences of students. A limitation of the research was the limited participation of students attending the University of Toronto’s St. George’s campus. The research question seeks the mobility of students from Scarborough. However, the inclusion of a campus within Scarborough also answers the research question, as students attending the UofT Scarborough campus still use public transportation to access the campus. Using only students from the Scarborough campus also allows for a more whole, all-encompassing research about access to any educational destination from Scarborough.

Future research can focus on the comparison between Scarborough students’ lived experiences and other areas of the city. Student lived experiences from other areas of the city would be important to understand if these are isolated issues or issues on a city-wide scale. For example, delays and bus cancellations were brought up frequently, but are not unique to the region of Scarborough. Other research that can be done to understand the impact of commuting on students specifically is the comparison between participants who live on or near campus and commuter students. While studying the effects of commuter vs non-commuter students would not help us understand destination accessibility more, it would benefit our understanding of how commuting on public transit can affect a student academically, as well as other student life markers.

## **Recommendations**

The research presents three main recommendations. The research highlighted that investing in mass transportation infrastructure may not be what is limiting students’ ability to physically reach their campuses. While improved public transportation infrastructure can benefit all riders, student-lived experiences emphasize the need for solutions that can improve their commute in the short term and are less expensive than introducing a large transportation system.

## **Safety**

While the Toronto Transit Commission has made an effort to improve safety on public vehicles, students still clearly express that on their commutes, safety concerns are common. Comfort and safety can be subjective, therefore, if someone is harassed for discriminatory reasons, that person may no longer feel safe and be excluded from public transit (Sheller, 2020, p.13). Being afraid to use public transportation can hinder a person’s destination accessibility due to fear of using the system and, therefore, potentially using public transit less or not at all. The SafeTTC app, along with hiring more

officers as well as introducing other programs to help combat safety concerns (Ide, 2024), has not calmed many students' concerns. Students when asked what could improve their commute, many students mentioned safety. Student C5 said, "I would probably say maybe more safety checks on the TTC because I know there's a lot of fare inspectors, but they don't really do a lot for safety in particular. They have safety people around busy times, nine and five. But I think they could do a little more, better during the day as well." The research paper recommends more safety officers or branded officials around TTC services. This way, there is a more visual deterrent as well as someone who is easily accessible to ask questions or for help if a student feels uncomfortable. More safety officers will help ensure students can access their educational institutions without concerns about safety. While some students brought up concerns about policing on the TTC, there were suggestions of community groups or non-police involvement in order to ensure safety on the TTC. The research also emphasizes a recommendation for infrastructure safety and maintenance. Safety is not only strictly having a person on guard duty as having a safety officer everywhere throughout the TTC network is unrealistic. Therefore, we need more safety infrastructure, such as sufficient lighting. Throughout the findings, students expressed discomfort with commuting late at night and, therefore, missing out on student or social events. One student stressed that lighting would be a big help to them when they come home at night, especially in the winter, because it is so dark out. Therefore, the research recommends increasing TTC safety guards and improving safety infrastructure such as lighting, cameras and mirrors in order to have students feel less concerned about their safety when travelling to school.

### **Information reliability**

The second recommendation the research findings suggest is improved information reliability and quality. Commuter students have tight schedules, which many have to put a lot of effort into managing between school and other responsibilities. Many of the participants expressed frustration with the current information they receive on when the next bus is coming. A student expressed that they stopped relying on the information and now use Uber to get to the station (A2). They wish that information about delays and obstacles were more directly relayed to the user so that they can better gauge how to get to class (A2). Students request better information transparency and quality in real-time. While there are apps like [bustime.ttc.ca](https://www.ttc.ca/bustime), the participants still indicate information inaccuracy as an issue. Students have also expressed how buses vary if they are on time or not, and even when they do come, sometimes they are full, the TTC can not guarantee bus time or errors with the systems. While delays can occur frequently in a major city during rush hours, information should be relayed to the user. Consistent, accurate information would allow students to structure their day in a way where they would not have to give more time than needed to commuting and, therefore, have more time for their responsibilities. One main issue identified with SMS bus texting is that there is a limit of six attempts before you can no longer request information on when the next bus is coming. No information was found on why there is a limit, but the SMS limit can cause uncertainty for students

trying to commute to school. Combining information limitation with said information potentially being inaccurate can cause a more difficult commute for a student trying to reach their school destination. The research paper recommends expanding on the bustime.ttc.ca bus times feature in order to help the student reach their destination. Implementing AI to predict live events would benefit the users of the system. Bustime.ttc.ca allows for real-time tracking and tells you how full a bus may be. Overall, the research appreciates the bustime.ttc.ca page and thinks it is a good system, but the research also recognized that not everyone has the ability to access wifi or data during their commutes and hindering SMS services to six updates can leave individuals with no way to access information.

### **Student Programs**

The third recommendation from the research's findings is to make adjustments in public transportation to make using the system more accessible to students. One recommendation that the participants highlighted is easing the cost of transportation for students. Students can pay \$7 a day, which adds up for a student to where they possibly would have to take on more hours at work to compensate, which takes away from their other responsibilities. A recommendation is for better school programs, such as making student Prestos cheaper and more accessible by potentially including them as a part of the tuition for commuter students. Another recommendation is to make the TTC post-secondary photo ID card more accessible to students. As of right now, students must go to the TTC photo ID centre at Bathurst Station or wait for an on-campus visit, which happens once or twice a year, to obtain the card (TTC, 2024). Having to travel to Bathurst station is an unnecessary step, and the TTC should make the TTC post-secondary photo ID available at more locations. Bathurst station can be far for students living in Scarborough and may be an unnecessary trip, having to commute to Bathurst station just to get a TTC post-secondary student photo ID has the potential to limit people's access to the discounted rate. Another recommendation students had was adding dedicated or direct buses to the university campuses, similar to UofT Scarborough. Students would like to see more red lanes, which are express and bus-only lanes, to encourage more people to use transit, but also allow students to access university locations faster. A student identified that the express buses today are not really express because they sit in traffic anyway, so there is no real benefit of using them without a dedicated lane. Overall, students would like the TTC and their university to help their mobility through fare reduction and smart route planning.

While students did express interest in major infrastructure changes, such as more frequent buses and large infrastructure projects, students consistently indicated these three improvements, which would make their destination more accessible. Overall, major infrastructure is planned for the region of Scarborough. Despite the area's track record of mobility infrastructure being cancelled, the research is hopeful and presents findings which will benefit students in the short term. These recommendations align with the findings that educational institutions are physically accessible by

public transportation, but that other issues associated with public transportation, as well as being a student can compound on an individual, which makes accessing these educational destinations difficult from Scarborough.

## 6. Conclusion

The research paper set out to answer: **How does public transit affect Scarborough residents' access to university education?** Previous studies show that destinations of opportunity, such as workplaces or schools, offer opportunities for individuals to alter their life trajectories. Ten university students varying in program, school and level of study shared their experiences of destination accessibility to educational institutions. Scarborough has had limited growth in terms of mobility infrastructure. The area is home to many new Canadians and low-income individuals and is tied for the lowest percentage of individuals with a post-secondary degree in the City of Toronto (City of Toronto, 2024 D). The research found that public transportation does make all educational institutions physically accessible, but the quality of mobility and other personal costs that students have to bear to reach campus are significant and potentially limiting to some individuals. For example, the research found that students found themselves late for school because of the buses being unreliable or late. A portion of the students felt that safety was a major issue on public transportation and that public transit was busy, which took more time than was needed. While these factors are subjective and very personal, it is clear that students regularly think about their commute and issues surrounding it while coming or going from school and, therefore, can have an impact on how they reach their educational institutions. The second part of the research highlighted how students' commute from Scarborough affects their education. The students expressed direct impacts on their academic success, such as being late for class and not having time to study. Students also expressed that public transportation can sometimes affect their decision-making about going to student events, hanging out with friends or even attending campus. Overall, commuter students from Scarborough have to have excellent time management skills in order to balance all other responsibilities students have, such as part-time jobs, caring for family members, and balancing school and commuting. Scarborough students would benefit greatly from short-term improvements, such as school-based programs, which help students, plus long-term mobility upgrades, in order for students from Scarborough not to have to think as much about their daily commute and whether they will make it to campus on time. In conclusion, the research has answered the initial question by understanding that mobility is not only about physical accessibility but also other factors surrounding mobility, such as time, cost and safety. Unexpectedly to the researcher, the participants stressed comfort and ease of use issues more than public transportation infrastructure. A hypothesis coming into the research would have been that students would like more infrastructure, which they do, but overwhelmingly, the research highlights the need for better ease of use, such as better information reliability, safety and service issues. To build

off the research, a larger-scale research on destination accessibility of all residents of Scarborough and other areas of the city should be done to understand if the issues brought up by the students are only faced by students, locally or on a city-wide scale.

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## Appendix

### Interview questions:

1. Please introduce yourself and describe your relations with Scarborough and public transportation.
  - a. Whereabouts in Scarborough are you from
2. Discuss different forms of mobility you use and rely on. Are there any challenges or benefits you endure from different mobilities?
  - a. Where would you rank public transportation if you had unlimited access to other forms of mobility?
3. Please discuss in full what an average commute to school looks like for you.
  - a. Are there any challenges you face when commuting on a regular basis?
  - b. If any, what do you think could improve your commute?
  - c. Total commute time daily?
4. Does public transportation and your commute have any effect on your academic success?
  - a. What other responsibilities do students have?
  - b. If so, how?
5. Do you take public transportation to school when you have a big test or exam?
6. Was mobility and commuting from Scarborough to your school a factor in determining where you would like to study? (What school do you go to?)
  - a. How did it play a role?
7. Have you ever felt limited or unable to access a school event, a job, or an opportunity because of public transportation?
8. How do you view public transportation, and what role/effects do you think it has on the community of Scarborough?
9. What potential improvements would you make to public transportation in the short and long term to help students from Scarborough reach educational institutions?
10. Any questions or things you would like to comment on or discuss further?