Milton vs. Toronto 2021 Commuting Analysis

Public transportation plays a crucial role in the lives of immigrants, students, and even those who live in urban areas such as Downtown Toronto. On the other hand, commuting via carpooling or driving to work is also a crucial method of one reaching the workplace. One may see signs encouraging drivers to carpool or take public transit to work to help save the environment, while the opposite is true in overcrowded places. For this project, I have chosen to compare the percentages of people who commute to work in a semi-rural town versus an urban city. The data used within the project is presented in graphs and maps, comparing and presenting how commuters may choose to use different types of transportation to reach their workplaces. The project aims to focus of the question: how are urban and suburban areas impacted, considering the availability of routes and proximity of transit infrastructure. This project showcases 3 maps, one for Milton and the commuter datasets collected in the year 2021, Toronto and the commuter datasets collected in the year 2021, and a buffed and clipped dataset that showcases how MiltonGO and union station may encourage commuters to explore their methods of transportation.

To begin with, Figure 1 presents two key components for this analysis: a map with a pie chart and a bar graph. The pie chart highlights the percentages of commuters who take a car (including carpooling), walk, bike, take public transit or any other way. The pie charts are used to directly present the data on the map for geographic purposes to recognize spatial patterns in commuter behaviour within the year 2021. From the findings in the pie chart, more commuters take a car to work from Milton than any other type of transportation. Based on the findings StatsCan (2021) provides data that shows the average commuter, who takes a car from Milton is 95.4%, meaning that almost all the residents of Milton use a car as their primary method of

transportation. Looking deeper into the charts, walking takes up 1.2% of the transportation methods, and public transportation takes up 1.9% of the transportation. Milton is a suburban town with an exponential growth rate, and a car is the primary method of transportation, which seems right, especially during 2021, when the world was just recovering from a global pandemic.

In Toronto, walking has a greater percentage than in Milton due to the availability of routes for people to take. In urban areas like Downtown Toronto, it is very efficient to choose any way other than a car as a primary method of transportation, as there are many setbacks that drivers face when taking a car that they would not if they took another method of transportation, such as bicycling or walking. Public transportation is also a significant transportation method within downtown Toronto, primarily due to the subway, TTC, and its usability for commuters who need to get from point A to point B fast. Looking at Figure 2, the pie chart shows that the car percentage is higher than most, but it does not outweigh the other transportation methods. A close second to cars is bicycling or using public transportation, which seems reasonable for an urban area with more walking routes than cars. Another key finding in Figure 2 is that there are more residents in downtown Toronto than in Milton. Cars are the primary method of transportation downtown, taking up 74% of the chart, whereas public transportation takes up 16.3%, and bicycles have almost the same percentage, 16.9%. In contrast, the bar graph shows a high number for cars, and a close second is public transportation. Overall, Figure 2 shows that within an urban city, cars make up the majority of transportation methods, but public transportation takes second place, as the residents of Toronto very prominently use it.

In Figure 3, a comparison of a clipped buffer at Milton Go Station and Union Station is made. The buffer has a 2km length, and based on the location of the two, the union is a better choice for residents to use. The buffer allows for many concerns to open for residents of Milton and residents of Toronto as well. For Milton, the 2km buffer shows little to nothing near it. The buffer on MiltonGO showcases only land near it, which may be why the percentage of cars being used as the primary method of transportation is high. In Milton, there is more access to roads and highways than the railway or bus. The bus routes within the town may only go to certain places outside the city, but that can vary, as not all routes go to every place. For example, a bus from MiltonGO may have very few times to go to areas such as downtown Toronto, or even if someone is trying to return to Milton via public transit. Milton may have routes that depart from the main stops, but even if routes are available, timing may not be as lenient as expected. In downtown Toronto, there are many ways to get to another city/town. For example, from Toronto to Burlington, a train is available every hour or so, making it very easy to catch a train and go, no matter if one is late or early. In the buffer around Union Station, the 2km radius has many places near it, and with the new PATH being built, the recent datasets may have a higher percentage of public transportation users than there is now.

In conclusion, downtown Toronto and Milton have very different transportation methods for the residents. In Milton, many of the residents rely on cars as their primary means of transportation, which is the same for Toronto, but in contrast to Milton, the public transport percentage is much higher than that of Milton. For future improvements, adding new routes and expanding the Milton routes can allow for the percentages of categories other than cars by a ton.

Improving the routes and timings can allow for more reliable public transportation, allowing residents to use public transit rather than their vehicles for a change.

Figures

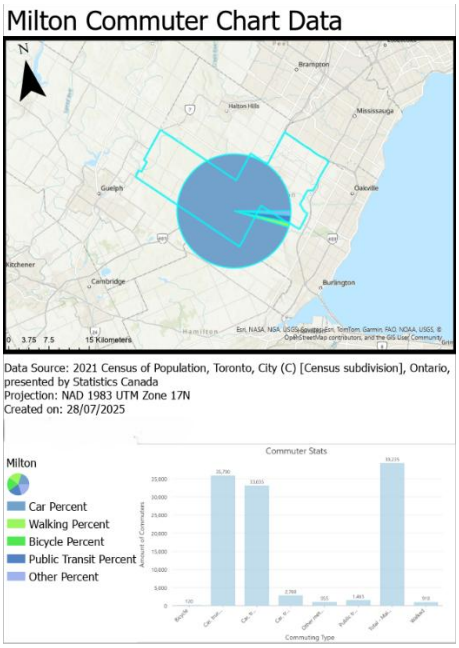

Figure 1 (Showcases Milton commuter layout, with a pie chart showing the percentages and a bar graph showing amounts presented by datasets)

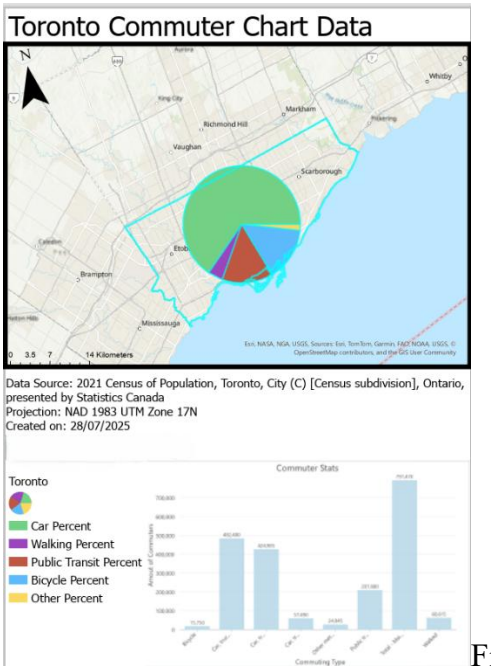

Figure 2 (Showcases Toronto commuter layout, with a pie chart showing the percentages and a bar graph showing amounts presented by datasets)

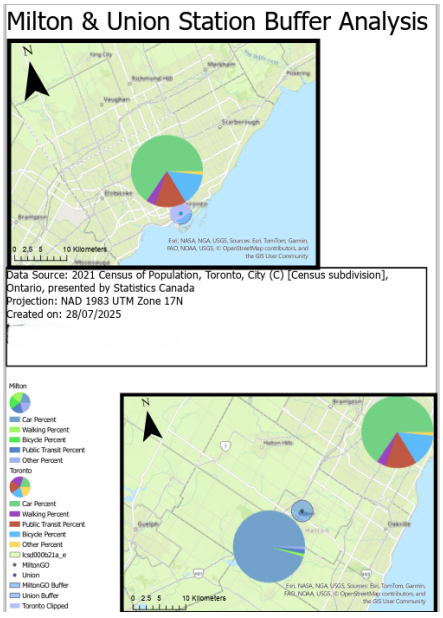

Figure 3 (Showcases two maps, one showing Toronto buffer and pie chart and the other showing Milton buffer and pie chart. Buffer represents the zone of influence. In this case, influence is an individuals decision on their method of transportation)

Citations

Statistics Canada. *2021 Census of Population.* Government of Canada, 2022, www12.statcan.gc.ca/census-recensement/2021/dp-pd/index-eng.cfm. Accessed 18 July 2025.

Esri. *ArcGIS Pro.* Environmental Systems Research Institute, www.esri.com/en-us/arcgis/products/arcgis-pro/overview. Accessed 18 July 2025.

Statistics Canada. *Boundary Files – Census Subdivisions (2021).* Government of Canada, 2022, www12.statcan.gc.ca/census-recensement/2021/geo/bound-limit/bound-limit-2021-eng.cfm. Accessed 18 July 2025.

Town of Milton. *Open Data Portal.* Town of Milton, www.milton.ca/en/resources/Open-Data.aspx. Accessed 17 July 2025.

City of Toronto. *Open Data Portal.* City of Toronto, open.toronto.ca. Accessed 18 July 2025

Statistics Canada. *Boundary Files, 2021 Census*. Government of Canada, 2022, https://www12.statcan.gc.ca/census-recensement/2021/geo/bound-limit/bound-limit-2021-eng.cfm.