Geography Extended Essay

Study of Accessibility of Public Transportation in the Greater Toronto Area

Research Question: How does the accessibility of public transportation affect the price of real estate in the GTA?

Word Count: 3854

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1. Introduction

The purpose of this Extended Essay is to create a universal measure of accessibility of public transportation. To do so, I created a weighted index that I applied to the data of the GTA. I then used those values to evaluate the connection with the average price of apartments within that region. This index will be a somewhat simplified representation of transportation in the area and will not be able to include all factors.

1.1. Research question

How does the accessibility of public transportation affect the price of real estate in the GTA?

1.2. Geographic context

1.2.1. Why an index

Creating an index is one of the best ways to represent multiple factors quantitatively over a large area. A very well known index in geography is the Human Development Index (HDI), created in 1990 to measure key dimensions of human development in different countries (Investopedia). It comprises three dimensions: a long and healthy life, knowledge, and a decent standard of living. The three dimensions, which are composed of multiple factors, are merged together into a scale ranging from 0 to 1 (UNDP). This idea of multiple dimensions being merged into one single measure is what I used as inspiration to create my own index. My index will focus on transportation and will therefore not be composed of the same dimensions. This inter-regional index's purpose is to compare the accessibility to transportation across the multiple regions of the

GTA. It will measure intraregional and interregional transportation as the two primary dimensions.

1.2.2. Area of Investigation: the GTA

Toronto is the most populated city in Canada with 6 million inhabitants in 2020 (Government of Canada). This city represents 20% of Canada's GDP, with an economy reaching upwards of 350 billion dollars (Toronto Global). It is situated in the south of Ontario, a province in the south-east of Canada that shares a border with the United States (Figure 1).

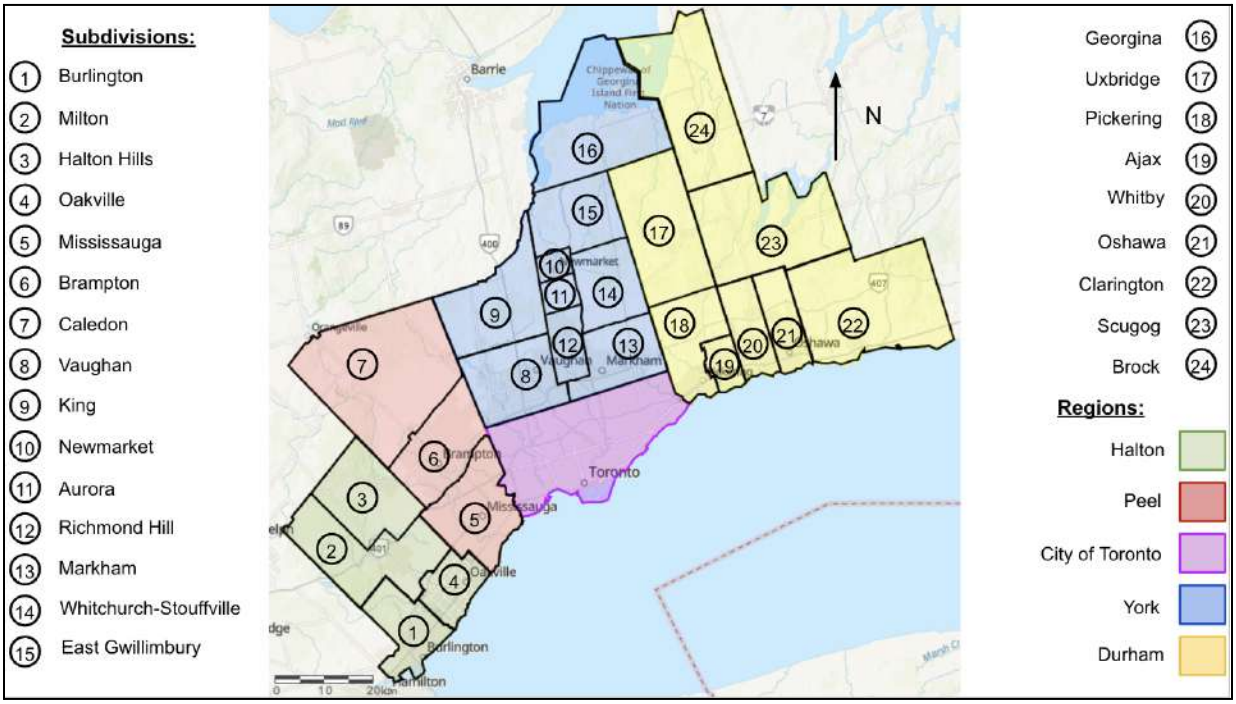

Figure 1. The Greater Toronto Area split up in all its cities and towns (ArcGIS, 2023, Adapted by Candidate)

Due to its large population size, the investigation splits the city of Toronto into its sub regions, comparing to other cities to see a more precise representation of transportation accessibility (Figure 2).

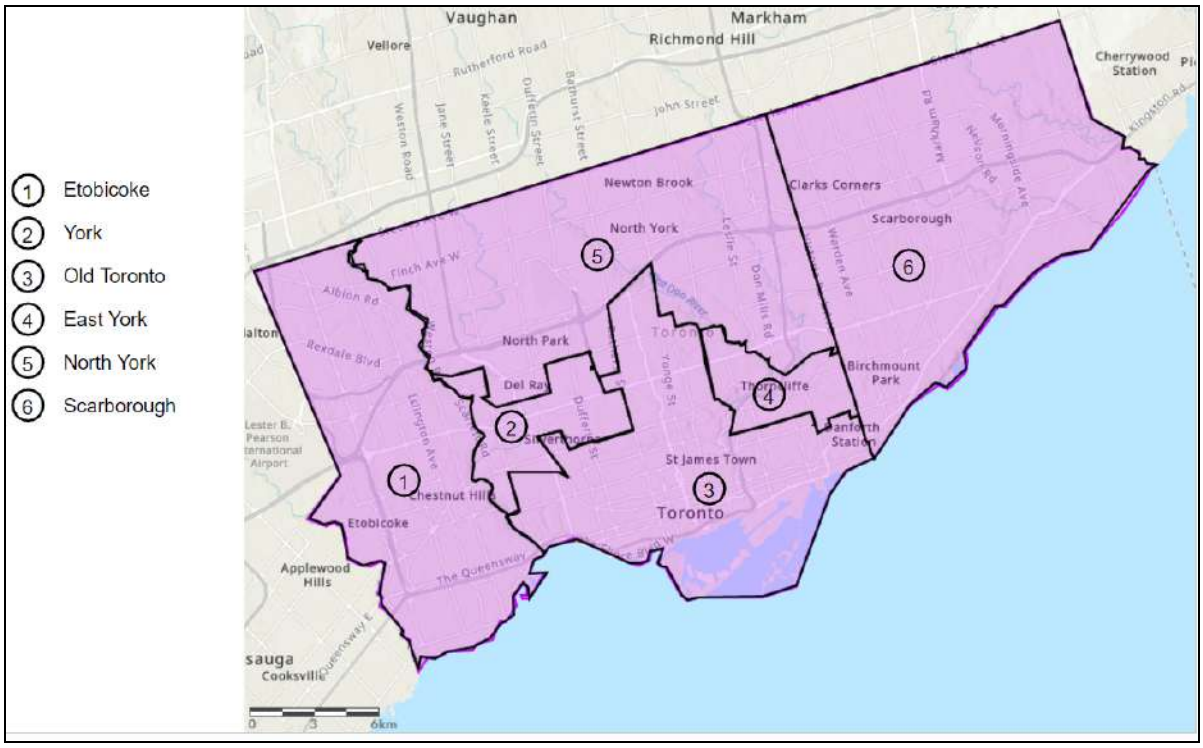

Figure 2. The city of Toronto divided into its sub regions
(ArcGIS, 2023, Adapted by Candidate)

2. Method of Investigation

2.1 GTA Real estate overview

A brief overview of GTA real estate prices is necessary to link them with public transportation access. Using Realosophy—a realtor website backed by the Canadian federal government (Realosophy)—allows access to up to date information about the different GTA subdivisions being researched (Figure 3).

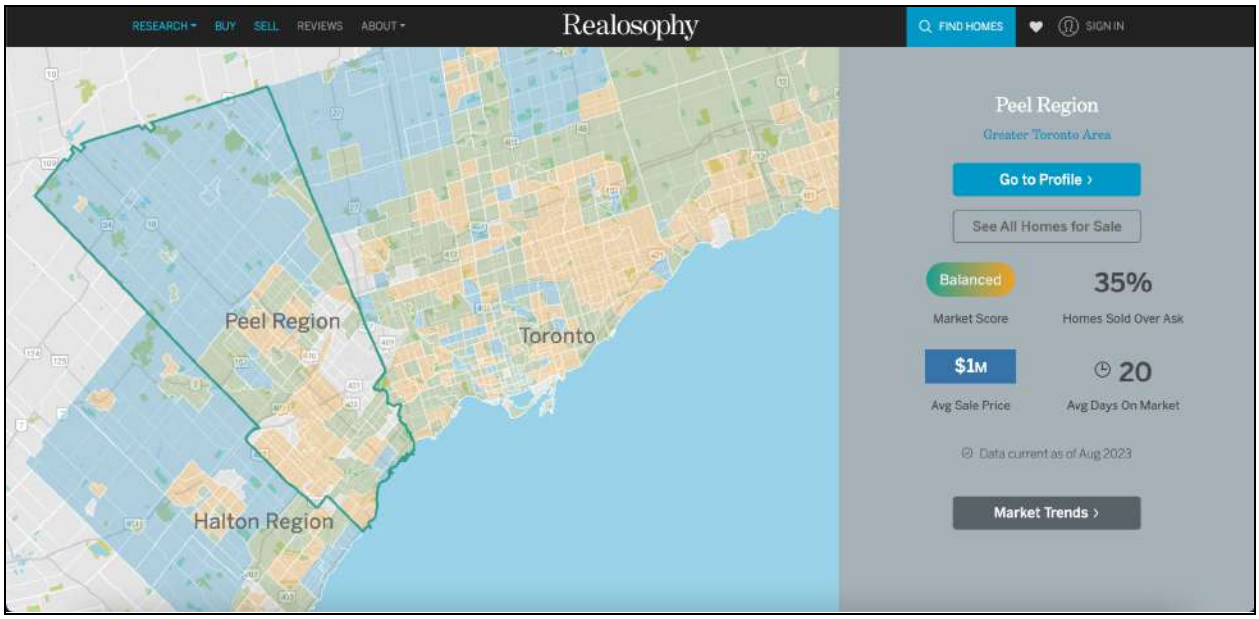

Figure 3. Screenshot of Realosophy website used in research (Realosophy)

The data (seen in Table 8) can be represented geographically:

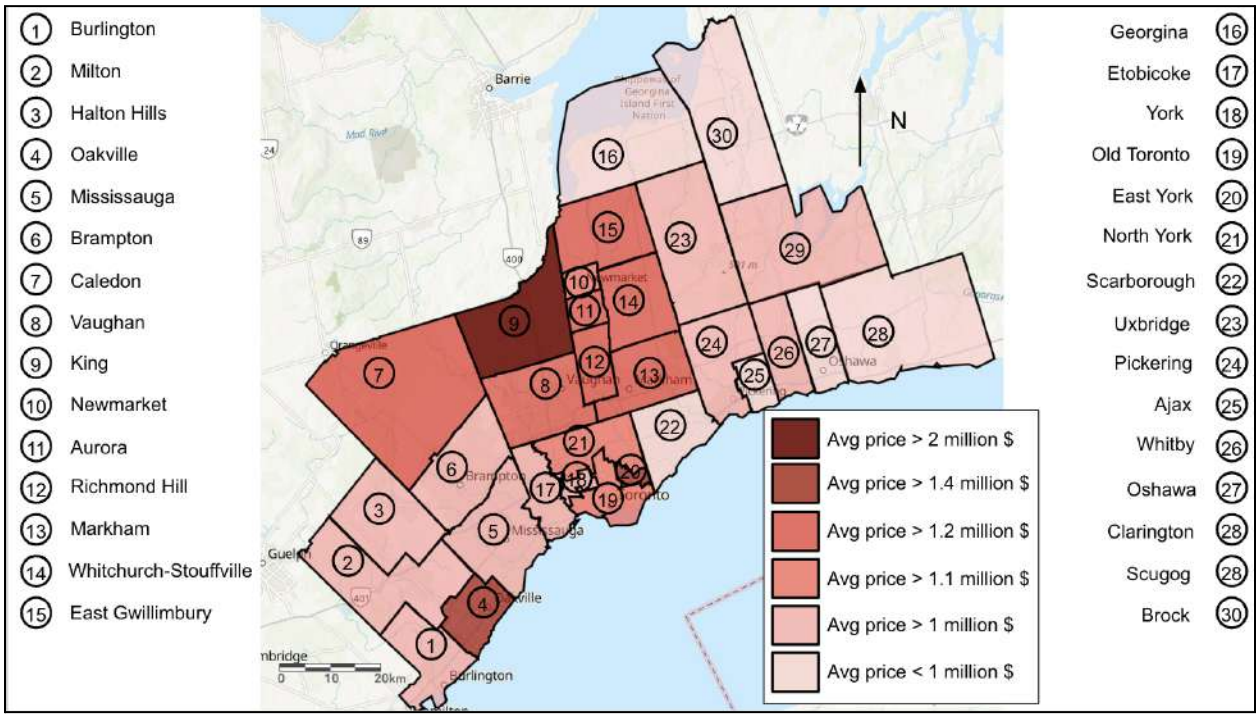

Figure 4. Geographic representation of the GTA real estate
(ArcGIS, 2023, Adapted by Candidate)

Figure 4 shows the GTA housing market is very uneven, with certain regions reaching more than double the average price of real estate of others. There seems to be a trend of housing prices increasing around certain subdivisions, most notably King and East York. Figure 4 shows the eastern side having lower average real estate prices. Because of this disparity in prices one would expect to have better conditions in the more expensive regions, one condition being access to public transportation, which is what I will be comparing the prices to.

2.2 Accessibility index overview

This index will be a universal measure of accessibility of transportation that will be applied in this case to compare the different regions of the GTA. This will be calculated using the method of calculation of a dimension index. I will call this index the Public Transportation Accessibility Index (PTAI).

It will comprise the following three criterias: intraregional public transit, interregional public transit, and connection to other areas. Choosing these dimensions is the best way to represent transportation. In itself transportation and how cities and regions organize themselves around it is an extremely complex topic, but these dimensions should allow to still see proper tendencies. I decided to separate intra and inter regional transportation, because looking at the difference in dependence levels of both I will be able to note tendencies with land use and tendencies pointing towards a central hub. Connection to other areas highlights a subdivision's transit servicing an area other than its own.

To analyze the data collected, I will first do a calculation of my dimension index showing transportation in the different regions. I will call this first index “raw PTAI” which will give me absolute values of the levels of accessibility of transportation. The second index I will create will be named “weighted PTAI” and will take the “raw PTAI” and divide that by the population in each region. This will show me how well each region’s infrastructure is supporting its population needs. The “weighted PTAI” will be the primary index I use in my analysis.

2.3 Method of data collection

For each method of transportation, the data was collected by calculating the amount of people transported per day. These values were then added within each dimension and I then turned those values into an index score from 0 to 1, where 0 means that none of that dimension is present and 1 being the highest value for that dimension. This allows me to weigh each method of transportation correctly, instead of randomly assigning a value to each method.

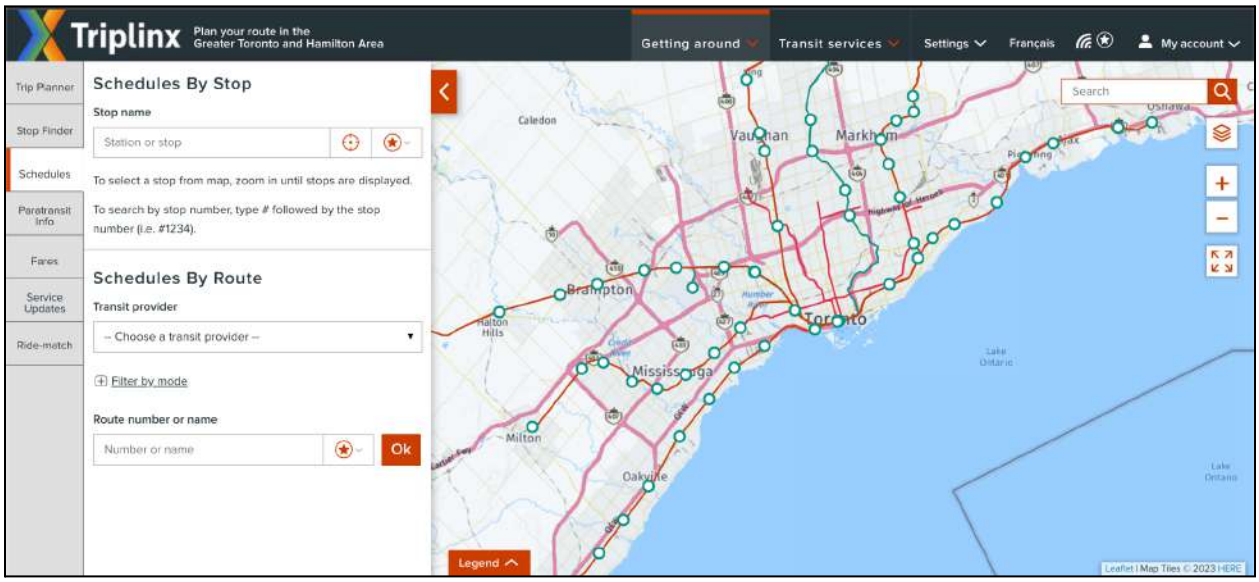

Figure 5. Screenshot of the web version of Triplinx

Data collection was done using the web version of the Triplinx App (Figure 5), which is run by Metrolinx (Which manages all GTA transit). This contains all the different public transportation methods in the entire GTA, and has a daily schedule of each route, including each stop of the bus and which city that stop is located in. Before any data collection, I also checked each city's official websites to make sure that all the routes were up to date. This was especially useful when the route was shut down the day of the data collection due to any unexpected problems, because on Triplinx, the route will not appear if it is temporarily closed, but on each city's websites, they will explain that it is a temporary issue and then I was still able to add it to the data. Additionally to keep consistency I would set the date of the trip on Triplinx to Tuesday April 4th 2023.

To calculate the amount of people per day, I would look at each route and take the first start time in either direction and stop at the last time at that same stop. I would then take the average frequency of the bus and convert that to the amount of times per day, and then multiply by the average bus seating capacity. It is important to note that neither Triplinx nor the cities websites included a frequency, so I had to go through the schedule and estimate a frequency which may cause some slight variations compared to the actual value. Additionally, I decided to take the seating capacity of the vehicle since that is a certain value instead of trying to estimate how many people could fit standing, furthermore for most of the operational hours, the vehicle is not completely full.

For intra-regional transit, the points were assigned to whichever city owned that route. However, for some regions such as the York region, the city of Toronto and the Durham region, the transit is owned by the entire region and not the specific subdivisions. In these cases, I attributed the value of a route to all subdivisions it entered. To do this I looked at the city that Triplinx said the stop belonged to. However, for the city of Toronto, Triplinx does not include which subdivision each stop is in, so I had to look at the route map and go through each stop to see what subdivisions it serviced. For both instances, the subdivision of the first stop of the day was the one that was qualified as owning it.

For inter-regional transit, consisting of GO-Trains and GO-Buses (Figure 6), the same method of data collection was used. For this dimension, the points went to all subdivisions that are serviced by that route since it is all owned by the government of Ontario.

Figure 6. Photo of the Lakeshore West GO-Train (Government of Ontario)

Finally, the connection to other areas dimension works in a system of bonus points. If the route connects to another area, it is awarded an additional half of the original value of that route. If that route connects to another subdivision in the GTA, that subdivision is awarded an additional half of the original value of that route. For the regions where the transit is shared, the full value of the route is awarded to both regions.

2.4 Calculation of the PTAI

The method of calculation of the Public Transportation Accessibility Index is very similar to the calculation of the HDI. First of all, I must calculate the 3 dimensions of the index; intra-regional, inter-regional, and connection to other areas. The calculation of dimension index is the same formula used for the HDI (Figure 7).

$$Dimension\ index = \frac{actual\ value - minimum\ value}{maximum\ value - minimum\ value}$$

Figure 7. Equation of a dimension index (Roser)

For my index, the minimum value will be 0 since the purpose of the PTAI is to apply globally and there are some regions in the world with no public transportation. The maximum value will be different for each dimension and is to be determined once the calculation of people per day is completed. The maximum for each dimension will be the highest value obtained by a subdivision. Once each dimension is calculated, the PTAI will be calculated by merging all the dimensions by finding the mean. Unlike the HDI, I will not be using a geometric mean since some of my values are equal to zero (Figure 8).

$$PTAI = \frac{I_{intra} \times I_{inter} \times I_{connection}}{3}$$

Figure 8. Mean of dimensions to find value of PTAI (“How”)

3. Analysis

3.1 Raw Data

The sum of the capacity of passengers per day of each dimension were calculated and are in the table below.

Table 1. People per day transited in each subdivision of the GTA (data based off of Table 0 in appendix)

Region	Subdivision	Intra-regional	Inter-regional	Connection to other
Halton	Burlington	17898	82694	1881
	Milton	8120	23980	1739
	Halton Hills	965	47329	0
	Oakville	19916	81886	0
Peel	Mississauga	141930	131235	75068
	Brampton	136578	62741	60131
	Caledon	960	135	3417
York	Vaughan	30323	48198	37364
	King	3436	31912	1374
	Newmarket	7516	33863	8720
	Aurora	2319	33123	9192
	Richmond Hill	30194	16801	13272
	Markham	21088	39038	48578
	Whitchurch Stouffville	687	34394	859
	East Gwillimbury	3693	33863	1117
	Georgina	1546	0	0

City of Toronto	Etobicoke	149234	134219	90153
	York	184520	46656	105826
	Old Toronto	420322	287608	133098
	East York	81946	0	29358
	North York	297496	46717	148632
	Scarborough	286146	117740	68674
Durham	Uxbridge	413	1346	2723
	Pickering	9405	85701	10354
	Ajax	9240	80990	10519
	Whitby	6146	83615	16913
	Oshawa	18521	84423	15139
	Clarington	4868	942	1155
	Scugog	413	135	2723
	Brock	413	135	0

Looking at the amount of people transiting per day, it is evident that there is very unequal repartition of the public transit services. For example, in Old Toronto there are 420,322 people per day and yet in Uxbridge there are only 413. However, within each region, the subdivisions will have similar values. For example, Burlington and Oakvile, which are both in the Halton region, share very similar values.

3.2 Raw Index Values

To calculate the PTAI, I first used the equation in figure 7, for each subdivision in each of the three dimensions. As stated before in section 2.3, the minimum values will be 0 and the maximum value for intra-regional, inter-regional and connection to other areas will be; 420322,

287608, and 148632 respectively. Using these values, the equation and the raw data in table 1, the dimension indexes were calculated (Figures 9, 10 and 11) (Table 2 in appendix).

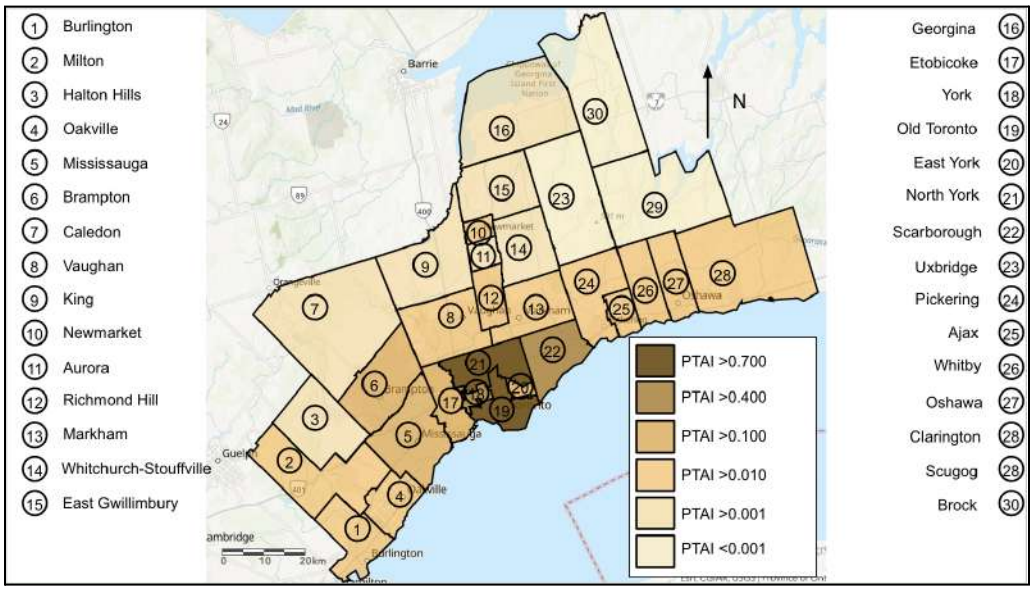

Figure 9. Geographic distribution of the raw index values for the Intra-regional dimension (ArcGIS, 2023, Adapted by Candidate)

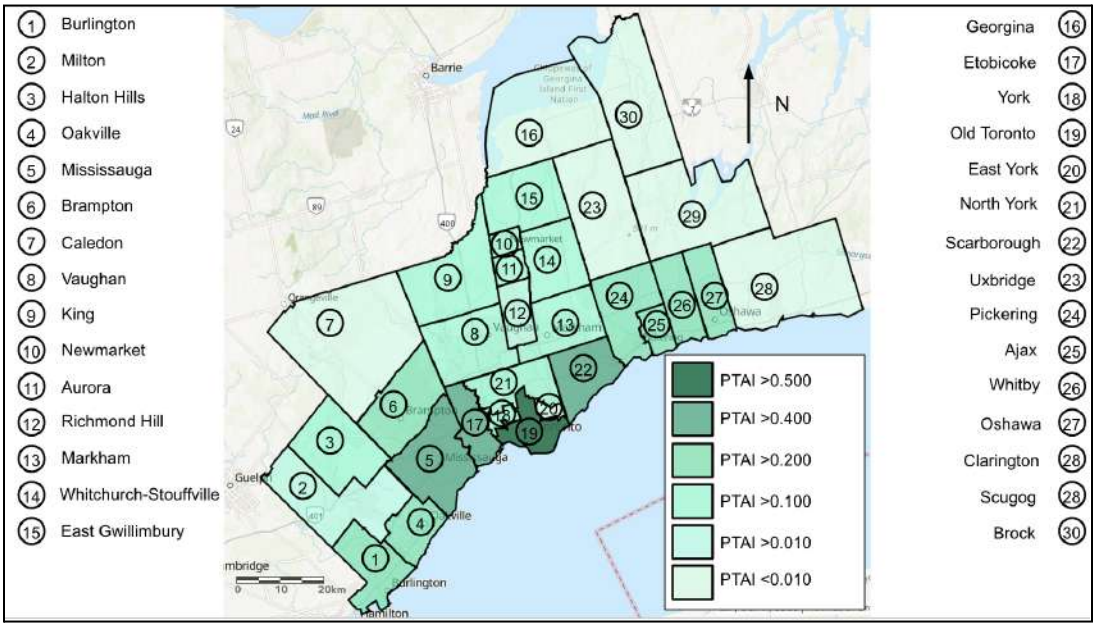

Figure 10. Geographic distribution of the raw index values for the Inter-regional dimension (ArcGIS, 2023, Adapted by Candidate)

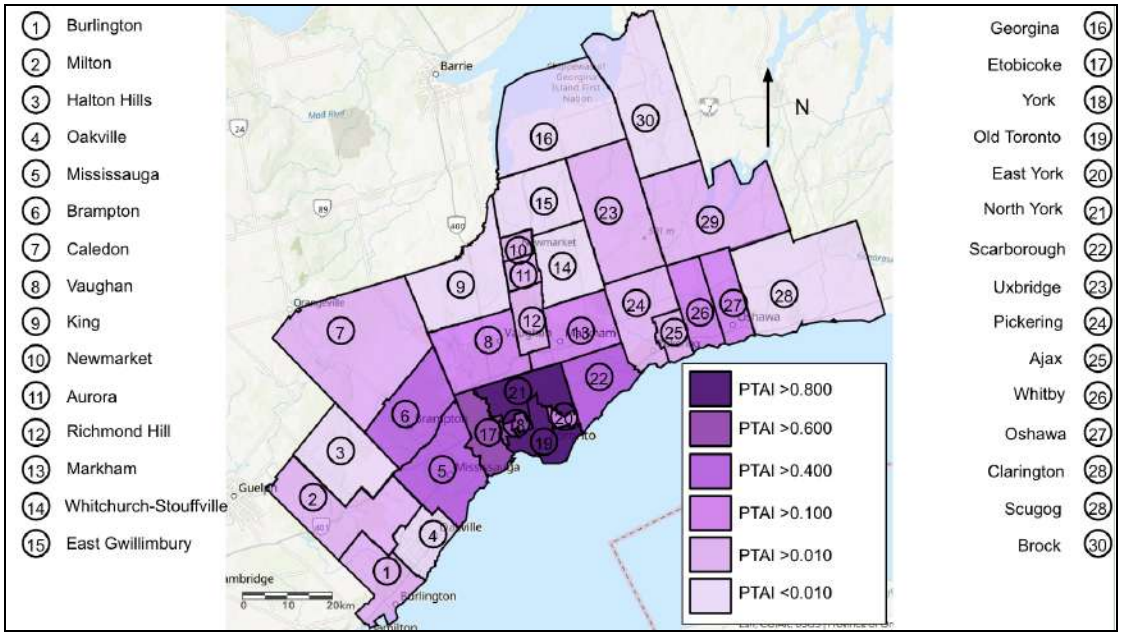

Figure 11. Geographic distribution of the raw index values for the Connection to other areas dimension (ArcGIS, 2023, Adapted by Candidate)

The dimension indices properly demonstrate the ratio between the value of the subdivision and the highest value of that dimension. By representing these values graphically, it allows us to see where there is a lack or unequal representation in the accessibility of transportation. Additionally it allows us to notice certain geographic tendencies such as the presence of distance decay around Old Toronto for all 3 dimensions. For example, in the subdivision of Scugog and Brock, there is only about 0.05% of the highest value for the three dimensions. For intra-regional transit, the subdivisions of North York and Scarborough have the second and third highest value, yet they are only 0.708 and 0.681 respectively, the highest value being Old Toronto. For inter-regional transit, Old Toronto's separation is even more important, where the second highest value is only 0.467 (that of Etobicoke). This can be explained by the fact that Old Toronto is home to Union Station (Figure 12), the transit hub of the GO-trains, the largest contributor to inter-regional transit.

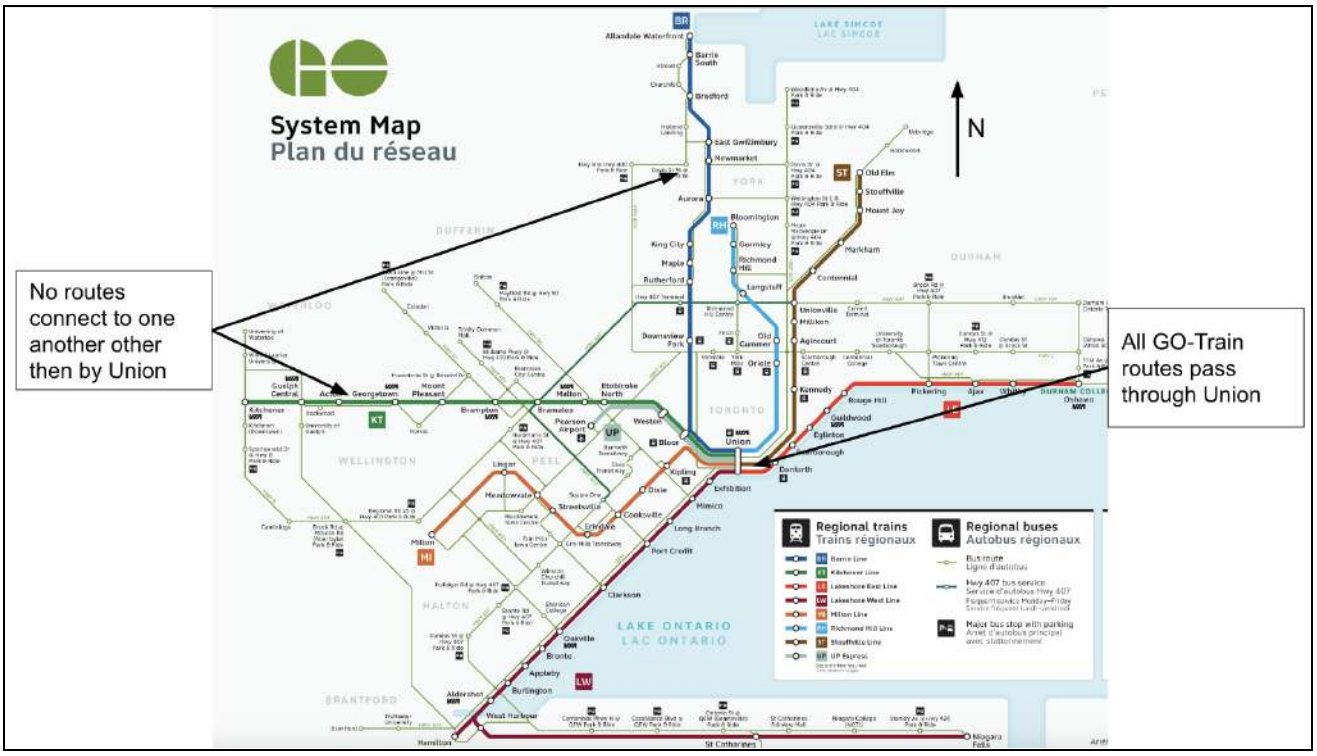

Figure 12. System Map of the GO, with annotations (Government of Ontario)

Using the data in Table 2 and the formula inspired by the HDI (Figure 7), the composite index; PTAI, can be calculated (Table 3). For subdivisions with a dimension index of 0, that value must be excluded from the calculation and do it with only the other values.

Table 3. Raw PTAI values for all the subdivisions of the GTA (data based off of Table 0 in appendix)

Region	Subdivision	PTAI values
Halton	Burlington	0.1144
	Milton	0.0381
	Halton Hills	0.0558
	Oakville	0.111
Peel	Mississauga	0.422
	Brampton	0.316
	Caledon	0.00858

York	Vaughan	0.164
	King	0.0428
	Newmarket	0.0648
	Aurora	0.0608
	Richmond Hill	0.0732
	Markham	0.171
	Whitchurch Stouffville	0.0425
	East Gwillimbury	0.0448
	Georgina	0.00123
City of Toronto	Etobicoke	0.476
	York	0.438
	Old Toronto	0.965
	East York	0.131
	North York	0.623
	Scarborough	0.517
Durham	Uxbridge	0.00799
	Pickering	0.130
	Ajax	0.125
	Whitby	0.140
	Oshawa	0.147
	Clarington	0.00755
	Scugog	0.00658
	Brock	0.000484

The highest PTAI value was attributed to Old Toronto (0.965), which was much higher than the second value 0.623 awarded to North York. The two lowest values were 0.000484 and 0.00123, for Brock and Georgina respectively. This huge disparity and the fact that 27/30 of the subdivisions have a value below 0.5, demonstrates how there is an extremely unequal distribution of the public transit services.

To demonstrate how the values of the raw PTAI are spread geographically in the GTA, a map was created with 5 hues representing 5 different intervals (Figure 13)

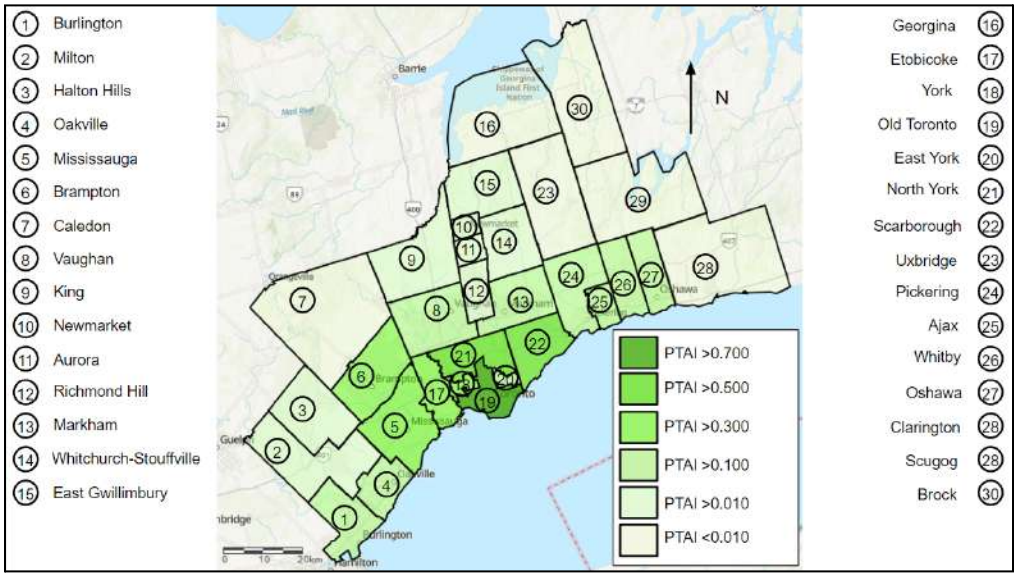

Figure 13. Geographic distribution of the raw PTAI values in the GTA (ArcGIS, 2023, Adapted by Candidate)

By looking at the map, it can be seen that the distribution of transit accessibility is following the geographic theory of distance decay. Distance decay states that interactions will decrease as the distance from a center increases (Dempsey). As seen, Old Toronto which is the central hub of the GTA has the highest values for the PTAI whilst Brock and Georgina have the lowest values. It can therefore be concluded that public transit accessibility follows the geographic distance decay model.

3.3 Weighted Index Values

The raw PTAI values showed the overall accessibility and presence of the public transit in each subdivision. However, the weighted index values will properly measure how each subdivision services its population with respect to public transportation. It will do so, as stated in section 2.2, by weighing in the population count of each subdivision. This allows a much better understanding of how well a subdivision is servicing its population since some of the farther away subdivisions, which have lower PTAI values, might actually be properly servicing their population since they might not be many inhabitants. The opposite is true for subdivisions with higher PTAI values. In this way, the weights PTAI values, will not demonstrate the amount of public transit, but more how well the subdivision is supporting its inhabitants with respect to public transportation. From this new index, the dispersion of values will be expected to diminish, as the values will be closer together. The population for each subdivision was taken from the City of Toronto's 2021 census (City of Toronto) seen in the table below (Table 4).

Table 4. Population count in subdivisions of the GTA (City of Toronto)

Region	Subdivision	Population
Halton	Burlington	186,948
	Milton	132,979
	Halton Hills	62,951
	Oakville	213,759
Peel	Mississauga	717,961
	Brampton	656,480
	Caledon	76,581
York	Vaughan	323,103

	King	27,333
	Newmarket	87,942
	Aurora	62,057
	Richmond Hill	202,022
	Markham	338,503
	Whitchurch Stouffville	49,864
	East Gwillimbury	34,637
	Georgina	47,642
City of Toronto	Etobicoke	365,143
	York	145,662
	Old Toronto	797,642
	East York	118,071
	North York	869,401
	Scarborough	629,941
Durham	Uxbridge	21,556
	Pickering	99,186
	Ajax	126,666
	Whitby	138,501
	Oshawa	175,383
	Clarington	101,427
	Scugog	21,581
	Brock	12,567

To create the weighted PTAI, I will divide the raw data values of people that can be transited per day, by the population count. For example, I will take Burlington's raw data value

for the dimension of intra-regional transit (17898) and divide by the population (186948), which gives 0.0957. This method of calculation will be used for all dimensions and all subdivisions to find a weighted sum of the values (Table 5 in appendix). The main difference between the weighted and raw values is that the values are much closer together for the weighted values compared to the raw values. For example, for the weighted values, the highest value for connection to other areas is 73 times bigger than the lowest value other than 0. However, for the raw values the difference is 173 times bigger.

The index for each dimension of the weighted PTAI were calculated in the same method as the raw one (Figure 7). The minimum value will remain the same at 0, however the maximum values have changed to 1.267, 1.168 and 0.727, for intra-regional, inter-regional and connection to other areas, respectively. These values and the values from table 5 were used in the equation (Figure 7) to find the weighted dimension indexes for the three dimensions (Table 6 in appendix).

Once again, the main difference between the weighted and the raw indices is that the spread is much narrower for the weighted index. This is especially true for the originally very low values such as Brock or Scugog. Additionally, some subdivisions changed their position, such York which is now the highest in two of the three dimensions. This demonstrates that even if the raw value for public transit accessibility is low, it could still be sufficient to service the inhabitants of a subdivision. From the data in Table 6 and the equation in Figure 8, I calculated the Weighted PTAI for each subdivision in the GTA:

Table 7. Weighted PTAI values for the subdivisions of the GTA (data based off of Table 0 in appendix)

Region	Subdivision	PTAI values
Halton	Burlington	0.156
	Milton	0.0737
	Halton Hills	0.219
	Oakville	0.134
Peel	Mississauga	0.152
	Brampton	0.124
	Caledon	0.0242
York	Vaughan	0.121
	King	0.390
	Newmarket	0.178
	Aurora	0.230
	Richmond Hill	0.0932
	Markham	0.115
	Whitchurch Stouffville	0.209
	East Gwillimbury	0.322
	Georgina	0.00857
City of Toronto	Etobicoke	0.326
	York	0.758
	Old Toronto	0.318
	East York	0.297
	North York	0.183
	Scarborough	0.223
Durham	Uxbridge	0.0805
	Pickering	0.319

	Ajax	0.240
	Whitby	0.240
	Oshawa	0.205
	Clarington	0.0205
	Scugog	0.0645
	Brock	0.0117

The highest relative PTAI value in the entire GTA is 0.758, belonging to York. It is well above the rest of the subdivisions, surpassing the second best, King (0.390), by 0.368. The subdivision of Old Toronto, which has the highest raw PTAI value (0.965), has now dropped to 0.318. This shows that just because there is a lot of public transit, does not mean that there is enough. The lowest value, Georgina (0.00857) was 100 times less than that of York.

To demonstrate how the values of the weighted PTAI are spread geographically in the GTA, a map was created with 5 hues representing 5 different intervals:

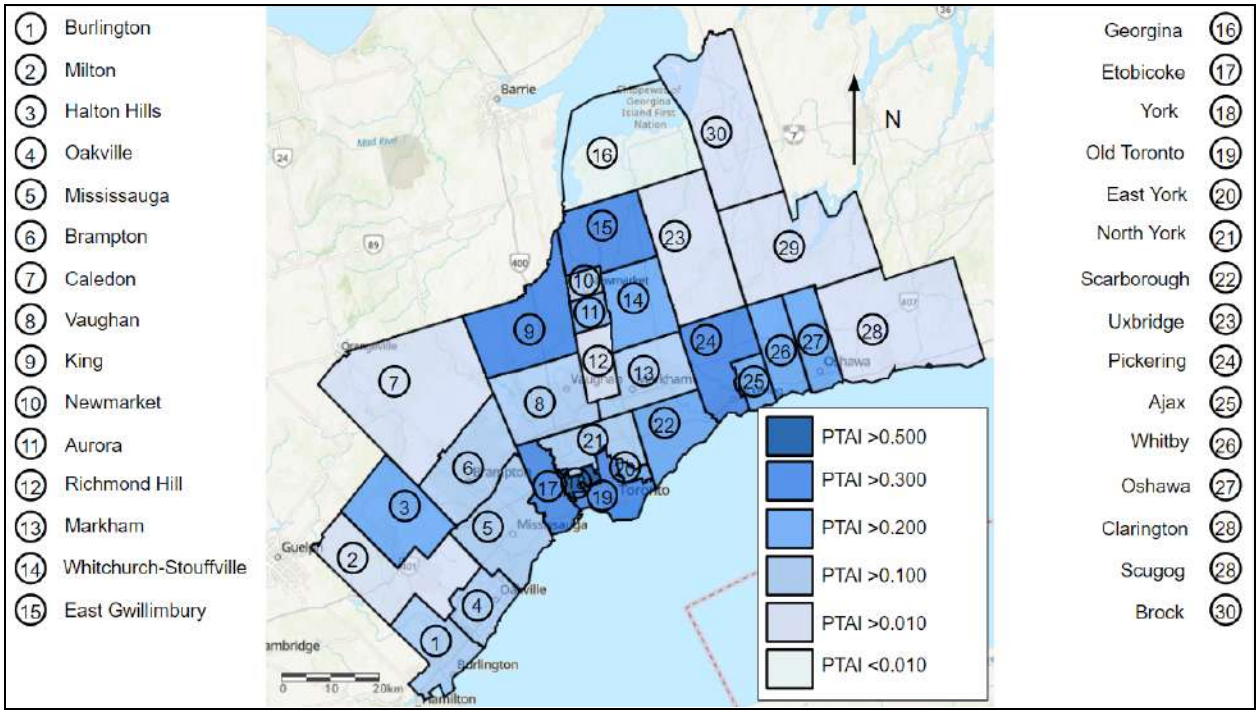

Figure 14. Geographic distribution of the weighted PTAI values in the GTA (ArcGIS, 2023, Adapted by Candidate)

3.4 Link to average price of residence

The weighted PTAI values allow to equally represent the availability of public transportation as it takes into account the population of the subdivision. Therefore, the weighted PTAI values properly demonstrate how well a subdivision services its population and whether or not it is sufficient. To see whether or not the values of accessibility were sufficient, it was compared to the average price of real estate of that subdivision. I only looked at the averages of April 2023, which was the most recent update to the data. I did this since the data of the public transportation was also collected in April 2023 so it kept consistent (Table 8).

Table 8. Average real estate price in different subdivisions of the GTA (Realosophy)

Region	Subdivision	Average real-estate price (CAD$)
Halton	Burlington	1100000
	Milton	1100000
	Halton Hills	1100000
	Oakville	1600000
Peel	Mississauga	1100000
	Brampton	1100000
	Caledon	1400000
York	Vaughan	1400000
	King	2200000
	Newmarket	1200000
	Aurora	1400000
	Richmond Hill	1400000
	Markham	1400000
	Whitchurch Stouffville	1400000
	East Gwillimbury	1300000
	Georgina	948000
City of Toronto	Etobicoke	1000000
	York	1100000
	Old Toronto	1200000
	East York	1500000
	North York	1200000
	Scarborough	945000

Durham	Uxbridge	1100000
	Pickering	1000000
	Ajax	984000
	Whitby	1100000
	Oshawa	837000
	Clarington	889000
	Scugog	1000000
	Brock	754000

When comparing the values of the weighted PTAI to the average price, some of the subdivisions do follow a trend. For example, the subdivision of King has the second highest weighted PTAI values and the highest price of real estate. Additionally, the region of Brock has the second lowest weighted PTAI value and the lowest price of real estate. However this is not the case for all subdivisions, such as York with the highest PTAI values by a lot and yet a medium real estate price. By doing a Pearson's correlation test, the obtained value of r is 0.207 which means that there is a positive correlation but the correlation is weak. This shows that public transit accessibility is a factor in the price of real estate, but there are many other factors that contribute to this complicated subject.

3.5 Explanation of other factors

As stated above there are many other factors that come into play. Some of these factors can be physical, such as climate, proximity to rivers and lakes, and the presence of natural resources. There can also be economic factors such as the presence of jobs that require different education

levels. There are also other public factors, such as access to health care and education that would affect the real estate price. There are also other factors within accessibility of transportation that the PTAI does not take into consideration. For example, the PTAI does not take into account the size of the routes themselves, a bus route was awarded points based on frequency of transit and not distance travelled. Additionally, the PTAI does not take into account factors such as people transiting by bike or by walk, which are very common in regions with less public transportation. Finally, a major factor in transportation that the PTAI does not take into consideration is private motor transport. This factor is extremely prevalent in the GTA but I did not take it into account due to its difficulty to quantify. This is a major limitation to the PTAI since the GTA is very reliant on private transportation compared to public transportation. This is because of the fact that the GTA, like many other cities in North America, follows the geographic model of a car city. A car city is a geographic term that describes a city that is very reliant, and has prioritized the development of, private motor transportation. A prime example of how the GTA is a car city would be the Gardiner Expressway, a highway that connects Old Toronto to Etobicoke:

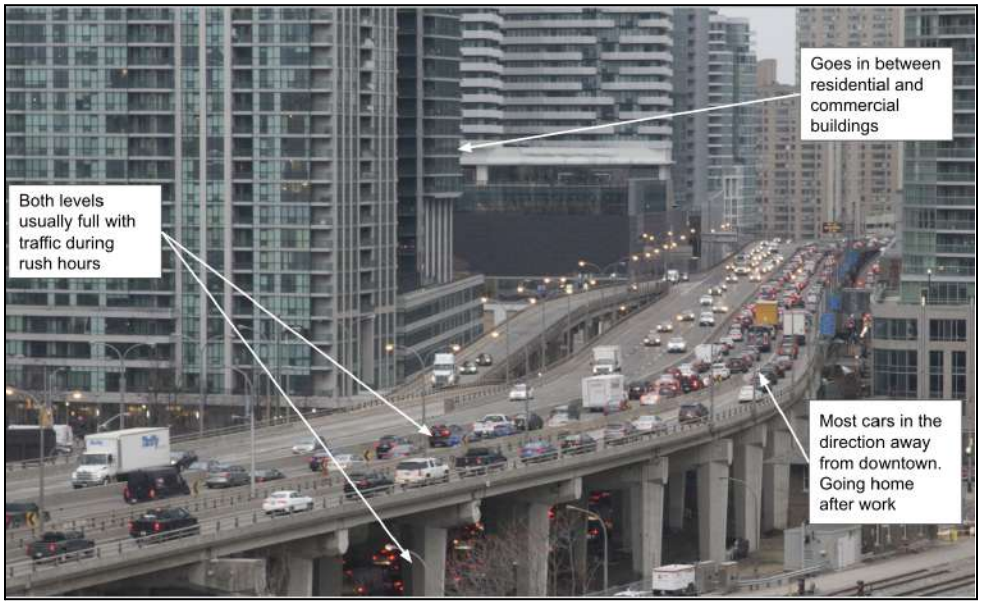

Figure 15. Image and annotations of the gardiner expressway, taken Monday at 5:30 pm (Lavoie)

In Figure 15, it can be seen that the gardiner expressway goes in between buildings and is quite filled up with traffic. This image shows how dependent the GTA is on private motor transport, especially by looking at the direction of travel of most cars. The gardiner is one of the fastest ways to link back to regions such as Peel or Halton, and is a road people regularly take to go home after work. The traffic created has two consequences, it slows down the circulation speed, and it creates a lot of nuisances. These nuisances, such as sound and pollution, could be a factor that drops the price of real estate, and seeing how close the highway is to the buildings, would explain why regions such as Old toronto, that have a high weighted and raw PTAI values, would not see a very high real estate price.

4. Conclusion

The Public Transportation Accessibility Index for the subdivisions of the GTA was calculated in two forms. The raw form demonstrated the overall presence of public transportation in the different subdivisions. For this form, the geographical presentation demonstrated that the largest values were observed in the proximity of the central business district, whilst the lowest values were observed in the peripheral subdivisions, which is coherent with the geographic theory of distance decay. The second form of the index, the weighted PTAI, were the values of the first index adjusted by the population count of each subdivision. This form of the index allowed to measure equally how well each district serviced its population for its need in public transit. For this form, the geographical presentation demonstrated that, once again, the larger values were found closer to the central business district, however, the distribution did not follow the distance

decay theory as much since certain peripheral subdivisions had large values as well. Additionally, the values of the weighted PTAI were closer compared to the raw PTAI values, but most were below 0.5, which shows that the subdivisions of the GTA do not service their populations very well. Finally, the weighted PTAI values were compared to that of the average real estate price for each subdivision to see if there would be a correlation. By conducting a Pearson's correlation test, it was shown that there is a positive correlation between the weighted PTAI and the real estate price, however that correlation is quite weak. This means that many other factors must be affecting the average real estate price. As stated in section 3.5, the reason that public transit has such a weak effect must be due to the fact that the GTA follows the urban model of a car city. To properly see a correlation, the index could have included other factors such as healthcare or education. However, to keep this study within the realm of transportation, it would have been interesting to include a measure for private motor transport, distance from necessities, and maybe an economic dimension. Although, the method of data collection and the dimensions of the index, were still done well and allowed to analyze trends within the GTA. If the study were to be done again, an improvement would be to look at a smaller area and go more in depth in that one region. By choosing the entire GTA, the data collection and calculations took a long time, which limited how much I could include in the PTAI. It would have been interesting to look at just one city in the GTA and consider many factors that affected real estate price. Additionally to save time and be able to do more, I would have done the data collection in a simpler manner, instead of measuring people per hour and deriving a score, I could just assign a value for each of the different types of transportation. These changes would have permitted the PTAI to be a more well rounded index that took into consideration multiple factors in the determining of average real estate prices. Doing so would have additionally seen a much stronger correlation.

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6. List of Figures

7. Appendix

Table 2. Dimension indices for the three dimensions, for the subdivisions of the GTA (data based off of Table 0 in appendix)

Region	Subdivision	Intra-regional	Inter-regional	Connection to other
Halton	Burlington	0.0426	0.288	0.0127
	Milton	0.0193	0.0834	0.0117
	Halton Hills	0.00230	0.165	0
	Oakville	0.0474	0.285	0
Peel	Mississauga	0.338	0.456	0.505
	Brampton	0.325	0.218	0.405
	Caledon	0.00228	0.000469	0.0230

York	Vaughan	0.0721	0.168	0.251
	King	0.00817	0.111	0.00924
	Newmarket	0.0178	0.118	0.0587
	Aurora	0.00552	0.115	0.0618
	Richmond Hill	0.0718	0.0584	0.0893
	Markham	0.0502	0.136	0.327
	Whitchurch Stouffville	0.00163	0.120	0.00578
	East Gwillimbury	0.00879	0.118	0.00752
	Georgina	0.00368	0	0
City of Toronto	Etobicoke	0.355	0.467	0.607
	York	0.439	0.162	0.712
	Old Toronto	1.00	1.00	0.895
	East York	0.195	0	0.198
	North York	0.708	0.162	1.00
	Scarborough	0.681	0.409	0.462
Durham	Uxbridge	0.000983	0.00468	0.0183
	Pickering	0.0224	0.298	0.0697
	Ajax	0.0220	0.282	0.0708
	Whitby	0.0146	0.291	0.114
	Oshawa	0.0441	0.294	0.102
	Clarington	0.0116	0.00328	0.00777
	Scugog	0.000983	0.000469	0.0183
	Brock	0.000983	0.000469	0

Table 5. Weighted raw dimension values for all subdivisions in the GTA (data based off of Table 0 in appendix)

Region	Subdivision	Intra-regional	Inter-regional	Connection to other
Halton	Burlington	0.0957	0.442	0.0101
	Milton	0.0611	0.181	0.0131
	Halton Hills	0.0153	0.752	0
	Oakville	0.0932	0.383	0
Peel	Mississauga	0.198	0.183	0.105
	Brampton	0.208	0.0956	0.0916
	Caledon	0.0125	0.00176	0.0446
York	Vaughan	0.0938	0.149	0.116
	King	0.126	1.168	0.0503
	Newmarket	0.0855	0.385	0.0992
	Aurora	0.0374	0.534	0.148
	Richmond Hill	0.150	0.0832	0.0657
	Markham	0.0623	0.115	0.144
	Whitchurch Stouffville	0.0138	0.690	0.0172
	East Gwillimbury	0.107	0.978	0.0322
	Georgina	0.0325	0	0
City of Toronto	Etobicoke	0.409	0.368	0.247
	York	1.267	0.3203	0.727
	Old Toronto	0.527	0.361	0.167
	East York	0.694	0	0.249
	North York	0.342	0.0527	0.171
	Scarborough	0.454	0.187	0.109

Durham	Uxbridge	0.0192	0.0624	0.126
	Pickering	0.0948	0.8640	0.104
	Ajax	0.0729	0.6394	0.0830
	Whitby	0.0444	0.6037	0.122
	Oshawa	0.106	0.481	0.0863
	Clarington	0.0480	0.00929	0.0114
	Scugog	0.0191	0.00626	0.126
	Brock	0.0329	0.0107	0

Table 6. Weighted dimension index values for the subdivisions of the GTA (data based off of Table 0 in appendix)

Region	Subdivision	Intra-regional	Inter-regional	Connection to other
Halton	Burlington	0.0755	0.378	0.0139
	Milton	0.0482	0.155	0.0180
	Halton Hills	0.0121	0.644	0
	Oakville	0.0736	0.328	0
Peel	Mississauga	0.156	0.157	0.144
	Brampton	0.164	0.0818	0.126
	Caledon	0.00987	0.00151	0.0613
York	Vaughan	0.0740	0.128	0.160
	King	0.0994	1.00	0.0692
	Newmarket	0.0675	0.330	0.137
	Aurora	0.0295	0.457	0.204
	Richmond Hill	0.118	0.0712	0.0904
	Markham	0.0492	0.0985	0.198
	Whitchurch	0.0109	0.591	0.0237

	Stouffville			
	East Gwillimbury	0.0845	0.837	0.0443
	Georgina	0.0257	0	0
City of Toronto	Etobicoke	0.323	0.315	0.340
	York	1.00	0.274	1.00
	Old Toronto	0.416	0.309	0.230
	East York	0.548	0	0.343
	North York	0.270	0.0451	0.235
	Scarborough	0.358	0.160	0.150
Durham	Uxbridge	0.0152	0.0534	0.173
	Pickering	0.0748	0.738	0.143
	Ajax	0.0575	0.547	0.114
	Whitby	0.0350	0.517	0.168
	Oshawa	0.0837	0.412	0.119
	Clarington	0.0379	0.00795	0.0157
	Scugog	0.0151	0.00536	0.173
	Brock	0.0260	0.00916	0

Region	District	Intraregional public transit (a)			Interregional public transit (a) (c)		Connection to other areas (a)
		Busses	Tram	Subway	Go Train	Go Bus	
Halton	Burlington (b)	<u>Routes:</u> #1: from 4:44 am to 12:35 am every 10-15 minutes #2: from 5:19 am to	NA	NA	<u>LW:</u> 4:54 am to 11:25 pm every 30 minutes (37)	#12: 6:35 am to 11:42 pm 18 times Connects Burlington to Niagara Falls	Bus route #1 express to hamilton: 10-15 minutes

		10:19 pm every 15-30 minutes #3: from 5:49 am to 10:49 pm every 15-30 minutes #4: from 5:25 am to 8:25 pm every 30 minutes #6: from 5:25 am to 9:25 pm every 30 minutes #10: from 4:56 am to 10:30 pm every 15-30 minutes #11: from 5:19 am to 9:42 pm every 30 minutes #12: from 5:40 am to 9:40 pm every 30 minutes #25: from 5:10 am to 11:09 pm every 30 minutes #48: 8:07 am and 2:30 pm #50: 10:56 pm to 12:56 am every hour #51: 10:56 pm to 12:56 am every hour #52: 10:56 pm to 12:56 am every hour #80: from 5:45 am to 6:45 pm every 30 minutes #81: from 5:30 am to			162 passengers per coach, 12 coaches per train	#15: 7:05 am to 12:01 am 13 times Connects Burlington to Brantford #17: 6:22 am to 9:17 pm 16 times connects to Hamilto and Waterloo #40: 3:05 am to 2:05 am 37 times connects Richmond Hill, Vaughan, Mississauga, Oakville, Burlington and Hamilton #41: 5:00 am to 10:10 pm 41 times connects Pickering, Scarborough, Richmond Hill, Vaughan, Brampton, Mississauga, Oakville, Burlington and Hamilton #47: 4:40 am to 1:10 am 34 times connects Vaughan, Brampton, Mississauga,	

		6:35 pm every 30 minutes #87: from 5:30 am to 8:30 am every 45 minutes and 2:30 pm to 6:15 pm every 45 minutes <u>Fleet:</u> D40LF (39 people), Vicinity (33 people), LFS, XD40 (42 people) (Vicinity Motor Corp) (City of Burlington)				Oakville, Burlington and Hamilton <u>Fleet:</u> D4500CT (55), Enviro 500 (81) Average: 67.3	
	Milton (d)	<u>Routes:</u> #2: 5:27 am to 10:13 pm every 30 minutes #3: 5:27 am to 8:45 pm every 30 to 60 minutes #4: 5:27 am to 8:45 pm every 30 minutes #5: 5:57 am to 8:45 pm every 30 to 60 minutes #6: 5:27 am to 8:45 pm every 30 to 60 minutes #7: 5:27 am to 8:45 pm every 30 to 60 minutes #8: 5:57 am to 8:15 pm every 30 to 60 minutes #9: 5:27 am to 8:45 pm every 30 to 60	NA	NA	<u>MI:</u> 6 times	#21: 5:55 am to 2:20 am 60 times connects Old toronto, Mississauga and Milton #25: 5:45 am to 11:45 pm 34 times connects Mississauga, Milton and Waterloo #27: 5:30 am to 1:15 am 25 times connects North York, Mississauga and Milton #29: 6:25 am to 11:25 pm 23 times connects Etobicoke,	Route 21 connects to Halton hills Route 8 connects (MiWay): Mississauga to Milton

		minutes #21: 5:57 am to 9:02 pm every 45 minutes <u>School special:</u> During the school year, Milton offers special school bus routes that run in the morning and night to pick up and drop of students going to 5 different secondary schools and highschools <u>On Demand:</u> From 5:15 am to 10:11 pm In certain areas, where all other busses that are not currently being used in routes are picking up people and dropping them of, like a communal uber system <u>Fleet:</u> The fleet includes D40LF (39 people), LFS, and XD40 (42 people) Special assistance includes the CS-2 (3 wheelchairs) (Town of Milton)				Mississauga, Milton and Guelph #41: 5:00 am to 10:10 pm 41 times connects Pickering, Scarborough, Richmond Hill, Vaughan, Brampton, Mississauga, Oakville, Burlington and Hamilton	
	Halton Hills (e)	Shares route 21 with milton <u>On Demand:</u> Activan: small bus for people with disabilities or elderly (8 people	NA	NA	<u>KI:</u>	#31: 5:51 am to 11:41 pm 10 times connects Old toronto, Mississauga, Brampton and	

		max + 3 wheelchairs) (The Town of Halton Hills)				Halton Hills	
	Oakville (f)	<u>Routes:</u> #1: 6:02 am to 11:38 pm every 60 minutes #3: 5:51 am to 11:10 pm every 30 to 45 minutes #3a: 5:51 am to 11:10 pm every 30 to 45 minutes #4: 6:06 am to 11:36 pm every 15 to 30 minutes #5: 6:14 am to 11:40 pm every 30 to 60 minutes #5a: 6:29 am to 7:14 pm every 30 to 60 minutes #6: 6:39 am to 7:09 pm every 30 to 60 minutes #10: 6:40 am to 9:40 am and 2:15 pm to 5:15 pm every 30 minutes #11: 5:52 am to 8:52 pm every 60 minutes #12: 6:05 am to 9:35 am and 3:25 pm to 6:55 pm every 30 minutes #13: 6:10 am to 10:40 pm every 30 minutes			<u>LW:</u>	#40: 3:05 am to 2:05 am 37 times connects Richmond Hill, Vaughan, Mississauga, Oakville, Burlington and Hamilton #41: 5:00 am to 10:10 pm 41 times connects Pickering, Scarborough, Richmond Hill, Vaughan, Brampton, Mississauga, Oakville, Burlington and Hamilton #47: 4:40 am to 1:10 am 34 times connects Vaughan, Brampton, Mississauga, Oakville, Burlington and Hamilton #56: 3:40 am to 10:30 pm 35 times connects Oshawa, Whitby,	

		#14: 6:25 am to 7:40 pm every 30 to 60 minutes #14a: 6:05 am to 11:40 pm every 30 to 60 minutes #15: 6:10 am to 8:10 pm every 30 to 60 minutes #18: 6:10 am to 9:10 pm every 30 minutes #19: 6:10 am to 10:40 pm every 30 minutes #20: 6:10 am to 8:40 pm every 30 minutes #24: 6:10 am to 11:10 pm every 15 to 30 minutes #26: 6:10 am to 8:40 am and 3:10 pm to 7:10 pm every 30 minutes #28: 6:10 am to 9:40 pm every 30 minutes #34: 5:46 am to 8:16 am and 4:26 pm to 7:36 pm every 30 minutes #120: 6:40 am to 9:10 am and 3:18 pm to 6:18 pm every 30 minutes #190: 6:30 to 7:30 am and 5:20 to 6:20 pm every 30 minutes				Pickering, Markham, Richmond Hill, Vaughan, Brampton, Mississauga and Oakville	

		School special: During the school year, Oakville offers special school bus routes that run in the morning and night to pick up and drop of students going to 7 different secondary schools and highschools On Demand: Care-a-van: small bus for people with disabilities or elderly 6:00 am to 12:00 am Fleet: Composed of XD40 (42 people), LFS, Vicinity (33 people), D40LFR (40 people)					
Peel	Mississauga (g)	Routes: #1: 3:46 am to 2:10 am every 7 minutes #2: 3:52 am to 2:26 am every 10 minutes #3: 3:37 am to 3:12 am every 25 minutes #4: 4:50 am to 10:31 pm every 32 minutes #5: 4:12 am to 1:49 am every 15 minutes #6: 5:04 am to 2:09 am every 25 minutes #7: 3:17 am to 2:37 am every 25 minutes #8: 5:04 am to 11:21			LW: MI: KI:	#19: 5:10 am to 12:10 am 36 times connects: Mississauga, Etobicoke, York and North York #25: 5:45 am to 11:45 pm 34 times connects Mississauga, Milton and Waterloo #38: 4:12 pm and 6:42 pm connects Caledon, Vaughan, Brampton and	Routes 1, 3, 4, 5, 7, 11, 20, 22, 23, 24, 26, 30, 35, 70, 71, 76, 101, 107, 108, 109 connect: Mississauga to Etobicoke Route 8 connects: Mississauga to Milton Routes 17, 18, 38, 57, 61, 66, 99, 103 connect: Mississauga and Brampton Routes 11 and 511 (Brampton) connect: Brampton Etobicoke and Mississauga Routes 2, 5, 6,7, 14, 15, 18 (Brampton)

		pm every 30 minutes #9: 5:04 am to 12:38 am every 22 minutes #10: 4:53 am to 12:43 am every 20 minutes #11: 5:06 am to 2:50 am every 13 minutes #13: 4:36 am to 1:17 am every 20 minutes #14: 5:10 am to 10:36 pm every 30 minutes #15: 5:05 am to 12:25 am every 25 minutes #16: 6:12 am to 11:33 pm every 33 minutes #17: 3:46 am to 2:31 am every 15 minutes (91) #18: 4:48 am to 8:48 am and 12:28 pm to 6:40 pm every 12 minutes (51) #20: 4:51 am to 12:24 am every 23 minutes #22: 4:23 am to 12:46 am every 20 minutes #23: 4:22 am to 1:46 am every 20 minutes #24: 5:36 am to 7:45 pm every 26 minutes #25: 4:26 am to 8:50 am and 1:36 pm to 7:40 pm every 24 minutes				Mississauga #45: 5:35 am to 6:00 pm 14 times connects Mississauga, Vaughan, Richmond Hill and Markham #94: 5:30 am to 6:35 pm 14 times connects Pickering, Scarborough, North York and Mississauga	connect: Brampton and Mississauga Route 30 (Brampton) connects: Brampton, Mississauga and Caledon Routes 32, 52, 352 and 952 (TTC) connect: Old Toronto, York, North York, Etobicoke and Mississauga Route 112 (TTC) connects: Etobicoke and Mississauga Route 300 (TTC) connects: Etobicoke, York Old Toronto, East York, Scarborough and Mississauga Route 332 (TTC) connects: Old Toronto, York, Etobicoke and Mississauga

		#26: 3:59 am to 3:16 am every 25 minutes #28: 5:08 am to 11:50 pm every 19 minutes #29: 4:56 am to 1:03 am every 34 minutes #30: 4:45 am to 11:18 pm every 40 minutes #34: 4:50 am to 8:47 pm every 30 minutes #35: 4:08 am to 11:37 pm every 15 minutes #36: 5:36 am to 1:04 am every 35 minutes #38: 4:34 am to 12:09 am every 25 minutes (47) #39: 4:37 am to 12:17 am every 20 minutes #42: 3:55 am to 1:43 am every 12 minutes #43: 5:15 am to 10:12 am every 35 minutes #44: 12:05 am to 11:40 pm every 16 minutes #45: 4:54 am to 11:36 pm every 18 minutes #46: 4:40 am to 12:42 am every 35 minutes #48: 5:06 am to 12:38 am every 39 minutes					

		#49: 10:35 am to 7:16 pm every 40 minutes #51: 4:33 am to 1:08 am every 15 minutes #53: 5:15 am to 11:10 pm every 15 minutes #57: 4:54 am to 6:55 pm every 10 minutes (84) #61: 3:57 am to 12:59 am every 15 minutes (84) #66: 5:09 am to 12:54 am every 10 minutes (119) #68: 5:15 am to 12:35 am every 54 minutes #70: 2:44 pm to 6:14 pm every 21 minutes #71: 4:40 pm and 5:20 pm #73: 5:59 am to 9:35 am and 2:50 pm to 7:01 pm every 30 minutes #74: 5:18 am to 10:08 am and 2:32 pm to 7:36 pm every 42 minutes #76: 5:15 am to 11:38 pm every 25 minutes #87: 3:46 pm to 8:01 pm every 39 minutes #90: 5:43 am to 10:28 pm every 25 minutes					

		#99: 5:15 pm and 5:30 pm #101: 4:38 am to 10:16 pm every 20 minutes #103: 4:10 am to 12:15 am every 20 minutes (60) #107: 4:57 am 11:01 pm every 18 minutes #108: 5:17 am to 9:52 am and 3:25 pm to 7:46 pm every 29 minutes #109: 4:15 am to 10:15 pm every 18 minutes #110: 4:38 am to 12:57 am every every 18 minutes <u>School specials:</u> #302: 2:22 pm and 2:27 pm #304: 7:43 am #306: 7:43 am #307: 2:22 pm #313: 2:36 pm #314: 3:20 pm #315: 7:58 am #321: 7:56 am and 8:32 am <u>Fleet:</u>					

		Composed of D40LF (39 people), D40LFR (40 people), OrionVII (38 people), D60LFR (55 people), XD40 (42 people), XD60 (59 people), LFS, XDE60 (59 people) Average: 44.65					
	Brampton (h)	#1: 3:49 am to 2:24 am every 15 minutes (90) #2: 4:15 am to 1:20 am every 20 minutes (63) #3: 5:14 am to 12:37 am every 15 minutes (78) #4: 4:30 am to 12:26 am every 10 minutes (120) #5: 4:01 am to 12:34 am every 20 minutes (62) #6: 6:06 am to 8:43 pm every 45 minutes (19) #7: 4:25 am to 1:57 am every 8 minutes (162) #8: 5:30 am to 11:45 pm every 50 minutes (22) #9: 5:00 am to 7:15 pm every 43 minutes (20) #10: 5:53 am to 7:20			KI	#30: 6:36 am to 12:16 am 25 times connects Brampton, Mississauga and Waterloo #31: 5:51 am to 11:41 pm 10 times connects Old toronto, Mississauga, Brampton and Halton Hills #32: 5:25 am to 11:45 am 16 times connects Brampton, Vaughan and North York #33: 6:30 am to 1:30 am 27 times connects North York, Brampton, Halton Hill and Guelph #36: 5:50 am to 1:25 am 22 times	Routes 11 and 511 connect: Brampton Etobicoke and Mississauga Routes 2, 5, 6,7, 14, 15, 18 connect: Brampton and Mississauga Route 30 connects: Brampton, Mississauga and Caledon Routes 30 and 81 connect: Brampton and Caledon Route 199 connects to mississauga (goes UTM) Routes 201, 202, 203, 204, 207 and 208 connect to Caledon (mayfield secondary school) Route 501 (Brampton) connects: Brampton to Vaughan Routes 17, 18, 38, 57, 61, 66, 99, 103 (MiWay) connect: Mississauga and

		pm every 25 minutes (32) #11: 4:24 am to 2:14 am every 15 minutes (87) #12: 5:15 am to 9:13 pm every 60 minutes (16) #13: 6:00 am to 8:15 pm every 30 minutes (29) #14: 4:09 am to 1:47 am every 10 minutes (130) #15: 4:27 am to 2:07 am every 15 minutes (87) #16: 5:50 am to 8:50 pm every 60 minutes (15) #17: 5:10 am to 6:40 pm every 45 minutes (18) #18: 4:18 am to 2:30 am every 10 minutes (133) #19: 5:10 am to 7:40 pm every 40 minutes (22) #20: 5:16 am to 6:57 pm every 35 minutes (23) #23: 4:10 am to 12:30 am every 20 minutes (61) #24: 5:35 am to 9:09				connects North York and Brampton #37: 5:45 am to 8:26 pm 7 times connect Brampton, Caledon and Orangeville #38: 4:12 pm and 6:42 pm connects Caledon, Vaughan, Brampton and Mississauga #41: 5:00 am to 10:10 pm 41 times connects Pickering, Scarborough, Richmond Hill, Vaughan, Brampton, Mississauga, Oakville, Burlington and Hamilton #47: 4:40 am to 1:10 am 34 times connects Vaughan, Brampton, Mississauga, Oakville, Burlington and Hamilton #48: 5:45 am to 12:45 am 20 times connects	Brampton

		pm every 30 minutes (31) #25: 6:22 am to 8:24 pm every 31 minutes (29) #26: 5:30 am to 11:30 pm every 40 minutes (27) #27: 5:40 am to 7:37 pm every 30 minutes (28) #28: 6:19 am to 7:01 am every 45 minutes (17) #29: 5:01 am to 12:50 am every 24 minutes (50) #30: 5:05 am to 12:35 am every 10 minutes (117) #31: 5:29 am to 12:00 am every 35 minutes (32) #32: 6:00 am to 7:56 pm every 34 minutes (25) #33: 6:15 am to 7:37 pm every 34 minutes (24) #35: 5:25 am to 10:15 pm every 40 minutes (25) #36: 7:07 am to 6:06 pm every 65 minutes (10) #40: 6:35 am to 5:10				Vaughan, Brampton, Mississauga and Guelph #56: 3:40 am to 10:30 pm 35 times connects Oshawa, Whitby, Pickering, Markham, Richmond Hill, Vaughan, Brampton, Mississauga and Oakville	

		pm every 45 minutes (14) #50: 5:31 am to 12:21 am every 15 minutes (75) #51: 5:00 am to 12:32 pm every 30 minutes (15) #52: 5:25 am to 9:18 pm every 50 minutes (19) #53: 5:13 am to 12:59 am every 25 minutes (47) #54: 5:07 am to 12:30 am every 20 minutes (58) #55: 7:26 am to 6:46 pm every 45 minutes (31) #56: 5:30 am to 9:30 am every 40 minutes (24) #57: 4:55 am to 12:38 am every 25 minutes (47) #58: 6:15 am to 7:00 pm every 40 minutes (19) #60: 5:23 am to 7:40 pm every 33 minutes (25) #81: 6:00 am to 6:45 pm every 45 minutes (17) #104: 2:00 pm to 9:08					

		pm every 17 minus (25) #115: 5:30 am to 1:10 am every 25 minutes (47) #199: 8:40 am to 10:40 am and 3:30 pm to 5:30 pm every 60 minutes (4) <u>School Specials:</u> #200: at 7:30 am and 3:00 pm #201: 7:25 am and 3:00 pm #202: 7:15 am and 3:00 pm #203: 3:00 pm #205: 7:35 am and 2:30 pm #206: 7:35 am and 2:30 pm #207: 7:25 am and 3:00 pm and 3:04 pm #208: 7:25 am and 3:00 pm #209: 7:29 am and 2:30 pm #211: 7:25 am and 2:49 pm #212: 7:30 am and 2:24 pm #213: 7:29 am and 2:30 pm					

		#214: 7:49 am and 3:00 pm #215: 7:21 am and 2:30 pm #216: 8:13 am and 3:19 pm #217: 2:30 pm <u>Züm(rapid bus transit:</u> #501: 4:30 am to 11:03 pm every 5 to 10 minutes (148) #502: 5:29 am to 12:30 am every 10 minutes (114) #505: 5:53 am to 7:54 pm every 15 minutes (54) #511: 5:24 am to 12:56 am every 10 minutes (117) #561: 5:20 am to 6:50 pm every 20 minutes (41) <u>Fleet:</u> D40LF (39 people), XDE40 (42 people), XD40 (42 people), XDE60 (59 people), XE40 (42 people) Average: 51					
	Caledon (i)	<u>Bolton (only one town):</u> 6:00 am to 9:30 am and 3:00 pm to 6:30 pm every 30 minutes				#38: 5:04 am and 5:49 am connects Caledon, Vaughan, Brampton and	Routes, 30 and 81 connects (Brampton): Brampton to Caledon

		<u>On demand:</u> For people with disabilities or seniors from 6:00 am to 6:00 pm				Mississauga	
York (j)	Vaughan	<u>Routes:</u> #4: 4:41 am to 12:11 am every 15 to 20 minutes (78) #5: 5:17 am to 10:29 pm every 22 minutes (47) #7: 5:06 am to 10:32 pm every 25 to 35 minutes (35) #12: 5:08 am to 8:15 am and 2:53 pm to 6:58 pm every 30 to 40 minutes (12) #13: 6:31 am to 10:37 pm every 32 minutes (30) #16: 5:09 am to 10:48 pm every 28 minutes (38) #20: 5:13 am to 2:18 am every 15 minutes (84) #23: 5:20 am to 8:38 am and 2:54 pm to 6:50 pm every 50 minutes (9) #26: 4:56 am to 8:02 pm every 25 to 35 minutes (30) #77: 4:05 am to 2:52 am every 15 minutes (91)		Line #1 (TTC): 2 stops	<u>BR:</u>	#32: 5:25 am to 11:45 am 16 times connects Brampton, Vaughan and North York #38: 4:12 pm and 6:42 pm connects Caledon, Vaughan, Brampton and Mississauga #40: 3:05 am to 2:05 am 37 times connects Richmond Hill, Vaughan, Mississauga, Oakville, Burlington and Hamilton #41: 5:00 am to 10:10 pm 41 times connects Pickering, Scarborough, Richmond Hill, Vaughan, Brampton, Mississauga, Oakville, Burlington and Hamilton #45: 5:35 am	Viva orange connects: Richmond Hill and Vaughan Route 4 and 16 connects: Vaughan, Richmond Hill, Markham Route 5, 23, 77, 105, 107, 107b, 165 and 165f connect: Vaughan and North York Routes 7, 12 and 13 connect: Vaughan and Etobicoke Routes 85, 440 and 442 connect: Richmond Hill and Vaughan Route 88 connects: King, Richmond Hill, Vaughan and North York Route 501 (Brampton) connects: Brampton to Vaughan Routes 35, 335 and 989 (TTC) connect: Old Toronto, York, North York and Vaughan Routes 37, 60, 937 and 960 (TTC)

		#87: 5:20 am to 8:16 am and 2:15 pm to 7:12 pm every 83 minutes (6) #105: 5:27 am to 12:30 am every 15 minutes (76) #107: 5:16 am to 3:22 am every 20 minutes (66) #107b: 5:36 am to 6:54 pm every 20 minutes (39) #165: 5:17 am to 11:32 pm every 35 minutes (31) #165f: 6:25 am to 9:55 am and 2:58 pm to 7:08 pm every 30 minutes (15) <u>School Specials:</u> #460: 2:45 pm #461: 7:14 am and 2:55 pm #461: 7:44 am, 3:10 pm and 3:12 pm #464: 7:48 am and 2:35 pm #465: 7:49 am and 2:35 pm #466: 7:25 am and 2:40 pm #467: 2:30 pm #468: 7:36 am and				to 6:00 pm 14 times connects Mississauga, Vaughan, Richmond Hill and Markham #47: 4:40 am to 1:10 am 34 times connects Vaughan, Brampton, Mississauga, Oakville, Burlington and Hamilton #48: 5:45 am to 12:45 am 20 times connects Vaughan, Brampton, Mississauga and Guelph #52: 6:15 am and 6:45 am connects Vaughan, Richmond Hill, Markham, Pickering,Whitby and Oshawa #54: 5:40 am to 10:10 pm 18 times connects Markham, Richmond Hill and Vaughan	connect: North York, Etobicoke and Vaughan Routes 84, 107, 108 and 160(TTC) connect: North York and Vaughan Route 165 (TTC) connects: North York, Old Toronto and Vaughan Route 353 (TTC) connects: Scarborough, Markham, North York and Vaughan Route 927 (TTC) connects Etobicoke to Vaughan

		2:55 pm #469: 3:00 pm #470: 7:37 am and 3:09 pm <u>Senior Service:</u> Anyone 65+ in the york region can order a transit from 7:00 am to 2:45 pm <u>On Demand:</u> 5:30 am to 9:15 am and 2:00 pm to 7:45 pm Maple-Rutherford Go takes you from the Go train station to any location in Vaughan from 6:00 am to 9:00 am and 3:30 pm to 6:30 pm <u>Fleet:</u> D40LF (39 people), D40LFR (40 people), LFX (55 people), XD40 (42 people), XD60 (59 people), XE40 (42 people), Average: 42.95				#56: 3:40 am to 10:30 pm 35 times connects Oshawa, Whitby, Pickering, Markham, Richmond Hill, Vaughan, Brampton, Mississauga and Oakville #61: 9:25 am to 2:40 am 12 times connects Old Toronto, North York, Vaughan and Richmond Hill #63: 4:55 connect King, Vaughan and Old Toronto #65: 4:20 am to 12:05 pm 11 times connects East Gwillimbury, Newmarket, Aurora, King, Vaughan and Old Toronto #66: 5:10 am to 6:05 pm 11 times connects East Gwillimbury, Newmarket, Vaughan and North York	

	King	Routes: #88: 5:21 am to 12:00 am every 16 minutes (70) Senior Service: Anyone 65+ in the york region can order a transit from 7:00 am to 2:45 pm On Demand: King City Go takes you from the Go train station to any location in King from 5:30 am to 9:30 am and 4:00 pm to 8:00 pm			BR:	#63: 4:55 connect King, Vaughan and Old Toronto #65: 4:20 am to 12:05 pm 11 times connects East Gwillimbury, Newmarket, Aurora, King, Vaughan and Old Toronto	Route 88 connects: King, Richmond Hill, Vaughan and North York Route 96 connects: Newmarket, Aurora, Richmond Hill, King, Vaughan and North York
	Newmarket	Routes: Viva yellow: 4:06 am to 11:10 pm every 12 to 20 minutes (70) #44: 7:00 am to 9:07 am and 2:45 to 5:52 pm every 45 minutes (7) #55: 5:29 am to 8:36 pm every 37 minutes (25) #56: 5:38 am to 8:56 am and 1:52 pm to 6:32 pm every 70 minutes (7) #57: 6:50 am to 10:10 pm every 60 minutes (15) #96: 4:38 am to 10:12 pm every 33 minutes (32)			BR:	#65: 4:20 am to 12:05 pm 11 times connects East Gwillimbury, Newmarket, Aurora, King, Vaughan and Old Toronto #66: 5:10 am to 6:05 pm 11 times connects East Gwillimbury, Newmarket, Vaughan and North York #67: 5:40 am to 8:20 am 4 times connects East Gwillimbury, Newmarket, Aurora,	Viva blue connects: Toronto, Richmond Hill, Aurora and Newmarket Route 50 connects: Georgina, East Gwillimbury and Newmarket Route 52 connects: East Gwillimbury and Newmarket Route 54 connects: East Gwillimbury, Newmarket and Aurora Route 96 connects: Newmarket, Aurora, Richmond Hill, King, Vaughan and North York Route 98e connects:

		<u>School Specials:</u> #420: 7:10 am and 3:00 pm #423: 7:13 am, 3:00 pm and 3:01 pm #427: 7:35 am and 2:38 pm #430: 7:38 am and 2:38 pm <u>Senior Service:</u> Anyone 65+ in the york region can order a transit from 7:00 am to 2:45 pm <u>On Demand:</u> 10:00 am to 1:45 pm and 7:00 pm to 10:45 pm				Richmond Hill and North York #68: 6:10 am to 10:52 pm 15 times connects Aurora, Newmarket, East Gwillimbury and Barrie	North York, Markham, Richmond Hill, Aurora and Newmarket Route 98/99 connects: East Gwillimbury, Newmarket, Aurora, Richmond Hill, Markham and North York Route 427 connects: Newmarket and Aurora
	Aurora	#32: 5:12 am to 8:44 am and 2:41 pm to 7:24 pm every 50 minutes (10) #33: 6:00 am to 7:42 pm every 68 minutes (12) #33a: 6:34 am to 8:15 pm every 70 minutes (12) <u>School Specials:</u> 426: 7:36 am, 7:37 am, 3:15 pm, 3:18 pm and 3:20 pm #426: 3:15 pm #432: 7:44 am and 3:00 pm			<u>BR:</u>	#65: 4:20 am to 12:05 pm 11 times connects East Gwillimbury, Newmarket, Aurora, King, Vaughan and Old Toronto #67: 5:40 am to 8:20 am 4 times connects East Gwillimbury, Newmarket, Aurora, Richmond Hill and North York #68: 6:10 am to 10:52 pm	Viva blue connects: Toronto, Richmond Hill, Aurora and Newmarket Route 54 connects: East Gwillimbury, Newmarket and Aurora Route 96 connects: Newmarket, Aurora, Richmond Hill, King, Vaughan and North York Route 98e connects: North York, Markham, Richmond Hill, Aurora and Newmarket Route 98/99

		#434: 7:21 am and 2:40 pm <u>Senior Service:</u> Anyone 65+ in the york region can order a transit from 7:00 am to 2:45 pm <u>On Demand:</u> 6:30 am to 10:45 pm Aurora Go takes you from the Go train station to any location in Aurora from 5:30 am to 9:30 am and 4:00 pm to 8:00 pm				15 times connects Aurora, Newmarket, East Gwillimbury and Barrie	connects: East Gwillimbury, Newmarket, Aurora, Richmond Hill, Markham and North York Route 427 connects: Newmarket and Aurora Routes 429, 433, 434 and 436 connect: Richmond Hill and Aurora
	Richmond Hill	<u>Routes:</u> Viva blue: 3:53 am to 12:31 am every 10 minutes (124) Viva purple: 4:50 am to 12:26 am every 22 minutes (53) Viva purple A: 5:00 am to 12:00 am every 25 minutes (46) Viva orange: 4:05 am to 1:07 am every 10 to 30 minutes (63) #25: 4:51 am to 9:10 pm every 35 minutes (28) #81: 5:14 am to 8:41 am and 3:02 pm to 7:34 pm every 35 minutes (14) #82: 5:04 am to 9:03			<u>RH:</u> 6:02 am 7:02 am 8:02 am	#40: 3:05 am to 2:05 am 37 times connects Richmond Hill, Vaughan, Mississauga, Oakville, Burlington and Hamilton #41: 5:00 am to 10:10 pm 41 times connects Pickering, Scarborough, Richmond Hill, Vaughan, Brampton, Mississauga, Oakville, Burlington and Hamilton #45: 5:35 am to 6:00 pm 14	Viva blue connects: Toronto, Richmond Hill, Aurora and Newmarket Viva purple and Viva purple A connect: Richmond Hill and Markham Viva orange connects: Richmond Hill and Vaughan Routes 1, 25, 80, 82, 444, 448, 449 and 452 connect: Markham and Richmond Hill Routes 4 and 16 connect: Vaughan, Richmond Hill, Markham Routes 85, 440, 443, 446 and 450 connect:

		am and 3:11 pm to 7:32 pm every 30 minutes (17) #83: 5:42 am to 9:43 pm every 33 minutes (29) #83a: 6:03 am to 9:13 am and 2:30 pm to 7:18 pm every 35 minutes (14) #85: 5:10 am to 10:52 pm every 34 minutes (31) #86: 5:53 am to 9:30 pm every 40 minutes (23) #90: 5:42 am to 11:29 pm every 12 minutes (89) #90b: 5:42 am to 9:54 am and 3:10 pm and 7:05 pm every 18 minutes (27) #91: 5:22 am to 11:08 pm every 25 minutes (43) #91a: 6:27 am to 11:24 pm every 40 minutes (25) #91b: 6:25 am to 8:40 am and 4:18 pm to 7:16 pm every 45 minutes (7) #91e: 7:00 am, 7:20 am and 7:40 am #99: 4:00 am to 9:38 pm every 35 minutes				times connects Mississauga, Vaughan, Richmond Hill and Markham #52: 6:15 am and 6:45 am connects Vaughan, Richmond Hill, Markham, Pickering,Whitby and Oshawa #54: 5:40 am to 10:10 pm 18 times connects Markham, Richmond Hill and Vaughan #56: 3:40 am to 10:30 pm 35 times connects Oshawa, Whitby, Pickering, Markham, Richmond Hill, Vaughan, Brampton, Mississauga and Oakville #61: 9:25 am to 2:40 am 12 times connects Old Toronto, North York,	Richmond Hill and Vaughan Route 88 connects: King, Richmond Hill, Vaughan and North York Routes 90, 90b, 91, 91a, 91e and 99 connect: Richmond Hill, Markham and North York Route 96 connects: Newmarket, Aurora, Richmond Hill, King, Vaughan and North York Route 98e connects: North York, Markham, Richmond Hill, Aurora and Newmarket Route 98/99 connects: East Gwillimbury, Newmarket, Aurora, Richmond Hill, Markham and North York Routes 429, 433, 434 and 436 connect: Richmond Hill and Aurora

		(30) <u>School Specials:</u> #429: 7:12 am and 2:40 pm #433: 7:42 am, 2:40 pm and 2:43 pm #436: 7:59 am and 2:45 pm #440: 7:33 am and 2:30 pm #442: 3:45 pm #443: 7:26 am and 2:42 pm #444: 7:36 am and 2:45 pm #446: 7:27 am, 2:30 pm and 2:33 pm #447: 7:29 am and 2:25 pm #448: 7:53 am and 3:45 pm #449: 8:48 am and 3:50 pm #450: 7:25 am and 2:30 pm #452: 8:44 am and 3:50 pm <u>Senior Service:</u> Anyone 65+ in the york region can order a transit from 7:00 am to 2:45 pm <u>On Demand:</u>				Vaughan and Richmond Hill #67: 5:40 am to 8:20 am 4 times connects East Gwillimbury, Newmarket, Aurora, Richmond Hill and North York	

		7:00 am to 2:45 pm					
	Markham	<u>Routes:</u> #1: 4:40 am to 12:52 am every 20 to 35 minutes (44) #2: 5:35 am to 11:53 pm every 20-40 minutes (37) #3: 5:40 am to 9:03 pm every 27 minutes (34) #8: 5:30 am to 10:13 pm every 17 minutes (59) #9: 5:46 am to 8:17 pm every 35 to 50 minutes (20) #14: 5:10 am to 8:24 pm every 34 minutes (27) #18: 5:38 am to 8:12 pm every 25 minutes (35) #24: 5:43 am to 10:17 pm every 13 minutes (76) #40: 6:00 am to 8:19 pm every 40 minutes (21) #80: 5:21 am to 11:05 pm every 29 minutes (37) #98e: 4:55 pm #522: 8:51 am to 3:27 pm every 80 minutes (5)			<u>ST:</u>	#45: 5:35 am to 6:00 pm 14 times connects Mississauga, Vaughan, Richmond Hill and Markham #52: 6:15 am and 6:45 am connects Vaughan, Richmond Hill, Markham, Pickering,Whitby and Oshawa #54: 5:40 am to 10:10 pm 18 times connects Markham, Richmond Hill and Vaughan #56: 3:40 am to 10:30 pm 35 times connects Oshawa, Whitby, Pickering, Markham, Richmond Hill, Vaughan, Brampton, Mississauga and Oakville #70: 5:43 am to 9:40 pm 14	Viva purple and Viva purple A connect: Richmond Hill and Markham Routes 1, 25, 80, 82 and 444 connect: Markham and Richmond Hill Routes 2, 3, 300, 301, 302, 303, 304 and 305 connect: Markham and North York Route 4 and 16 connects: Vaughan, Richmond Hill, Markham Routes 9 and 417 connect: Markham and Whitchurch Stouffville Route 24 connects: Markham, Etobicoke and North York Routes 90, 90b, 91, 91a and 91e and 99 connect: Richmond Hill, Markham and North York Route 98e connects: North York, Markham, Richmond Hill, Aurora and Newmarket Route 98/99 connects: East Gwillimbury, Newmarket, Aurora,

		#300: 7:30 am to 9:30 am and 3:55 pm to 6:20 pm every 15 to 30 minutes (12) #301: 6:13 am to 7:16 am and 4:35 pm to 5:45 pm every 30 minutes (4) #302: 6:05 am to 7:35 am and 4:40 pm to 6:15 pm every 30 minutes (6) #303: 6:13 am to 7:43 am and 4:00 pm to 6:05 pm every 15 minutes (14) #304: 6:10 am to 7:53 am and 4:05 pm to 6:03 pm every 17 minutes (13) #305: 5:58 am to 8:03 am and 3:55 pm to 6:25 pm every 25 minutes (11) <u>School Specials:</u> #401: 7:20 am and 2:45 pm #402: 7:23 am and 2:56 pm #403: 7:42 am and 2:40 pm #405: 7:28 am and 2:45 pm #406: 7:49 am and 2:50 pm #410: 7:21 am and				times connects Uxbridge, Whitchurch Stouffville and Markham #71: 6:43 am to 2:43 pm 6 times connects Old Toronto, Markham, Whitchurch Stouffville and Uxbridge	Richmond Hill, Markham and North York Route 11 (TTC) connects: Old Toronto, East York, North York and Markham Routes 17, 21, 68, 102, 129, 130 and 968 (TTC) connect: Scarborough to Markham Routes 24 and 324 (TTC) connect: Old Toronto, Scarborough, East York, North York and Markham Routes 53, 167 and 953 (TTC) connect: Scarborough, North York and Markham Route 302 (TTC) connects: Old Toronto, Scarborough and Markham Route 353 (TTC) connects: Scarborough, Markham, North York and Vaughan Route 924 (TTC) connects: Scarborough, Markham, North York and East York

		2:50 pm #411: 7:25 am, 2:53 pm and 2:55 pm #412: 3:20 pm #413: 7:43 am, 2:46 pm and 2:47 pm #416: 7:41 am and 2:50 pm #418: 7:32 am, 7:33 am, 3:05 pm and 3:06 pm <u>Senior Service:</u> Anyone 65+ in the york region can order a transit from 7:00 am to 2:45 pm <u>On demand:</u> 6:00 am to 7:45 pm					
	Whitchurch Stouffville	<u>Routes:</u> <u>School Specials:</u> #415: 8:38 am and 3:45 pm #417: 8:08 am, 8:09 am, 3:50 pm and 3:51 pm <u>Senior Service:</u> Anyone 65+ in the york region can order a transit from 7:00 am to 2:45 pm <u>On Demand:</u> 10:00 am to 1:45 pm and 7:00 pm to 10:45 pm			<u>ST:</u>	#70: 5:43 am to 9:40 pm 14 times connects Uxbridge, Whitchurch Stouffville and Markham #71: 6:43 am to 2:43 pm 6 times connects Old Toronto, Markham, Whitchurch Stouffville and Uxbridge	Routes 9 and 417 connect: Markham and Whitchurch Stouffville
	East	<u>Routes:</u>			<u>BR:</u>	#65: 4:20 am	Route 50 connects:

	Gwillimbury	#52: 5:17 am to 9:22 am and 2:28 pm to 6:28 pm every 60 minutes (8) #54: 5:32 am to 9:52 pm every 25 minutes (39) #98: 5:05 am to 9:27 pm every 50 minutes (20) #98/99: 9:50 pm to 1:55 am every 35 minutes (7) <u>School Specials:</u> #425: 8:10 am and 4:00 pm <u>Senior Service:</u> Anyone 65+ in the york region can order a transit from 7:00 am to 2:45 pm <u>On Demand:</u> 7:00 am to 10:45 pm East Gwillimbury Go takes you from the Go train station to any location in East Gwillimbury from 5:30 am to 10:45 pm				to 12:05 pm 11 times connects East Gwillimbury, Newmarket, Aurora, King, Vaughan and Old Toronto #66: 5:10 am to 6:05 pm 11 times connects East Gwillimbury, Newmarket, Vaughan and North York #67: 5:40 am to 8:20 am 4 times connects East Gwillimbury, Newmarket, Aurora, Richmond Hill and North York #68: 6:10 am to 10:52 pm 15 times connects Aurora, Newmarket, East Gwillimbury and Barrie	Georgina, East Gwillimbury and Newmarket Route 52 connects: East Gwillimbury and Newmarket Route 54 connects: East Gwillimbury, Newmarket and Aurora Route 98 connects: East Gwillimbury, Newmarket, Aurora and Richmond hill Route 98/99 connects: East Gwillimbury, Newmarket, Aurora, Richmond Hill, Markham and North York Route 424 connects: Georgina and East Gwillimbury
	Georgina	<u>Routes</u>: #50: 4:05 am to 10:25 pm every 45 minutes (24) <u>School Specials:</u> #424: 8:14 am and 3:15 pm					Route 50 connects: Georgina, East Gwillimbury and Newmarket Route 424 connects: Georgina and East Gwillimbury

		Senior Service: Anyone 65+ in the york region can order a transit from 7:00 am to 2:45 pm On Demand: 7:00 am to 10:45 pm					
City of Toronto (k)	Etobicoke	Routes: #15: 5:40 am to 1:15 am every 14 minutes (84) #44: 4:53 am to 1:47 pm every 10 minutes (53) #45: 4:21 am to 1:31 am every 15 minutes (85) #46: 4:51 am to 1:30 am every 15 minutes (83) #48: 5:20 am to 1:20 am every 25 minutes (48) #49: 5:40 am to 1:31 am every 17 minutes (70) #50: 5:30 am to 1:00 am every 15 minutes (78) #66: 5:20 am to 1:00 am every 10 minutes (118) #73: 4:50 am to 1:07 am every 8 minutes (152) #76: 5:01 am to 1:17 am every 6 minutes	Routes: #301: 12:00 am to 1:30 am every 10 minutes (9) 70 seated people	Line #2: 3 stops Load: 400	LW: MI: KI:	#19: 5:10 am to 12:10 am 36 times connects: Mississauga, Etobicoke, York and North York #29: 6:25 am to 11:25 pm 23 times connects Etobicoke, Mississauga, Milton and Guelph	Routes 32, 52, 352 and 952 connect: Old Toronto, York, North York, Etobicoke and Mississauga Routes 36, 73, 118 and 336 connect: North York and Etobicoke Routes 37, 60, 937 and 960 connect: North York, Etobicoke and Vaughan Route 79 connects: York, Etobicoke and Old Toronto Routes 80, 301 and 501 connect: Old Toronto and Etobicoke Routes 96 and 396 connect: Etobicoke, North York and Old Toronto Routes 112 and 900 connect: Etobicoke and Mississauga Route 300 connects: Etobicoke, York Old Toronto, East York, Scarborough and

		(203) #96: 4:48 am to 1:00 am every 10 minutes (121) #110: 5:18 am to 1:20 am every 10 minutes (120) #111: 5:05 am to 1:21 am every 15 minutes (81) #112: 5:00 am to 1:53 am every 15 minutes (84) #123: 5:32 am to 1:47 am every 10 minutes (122) #176: 5:36 am to 9:06 am and 3:20 pm to 6:52 pm every 30 minutes (14) #300: 1:28 am to 5:43 am every 8 minutes (32) #315: 1:44 am to 5:14 am every 30 minutes (7) #332: 1:38 am to 4:08 am every 30 minutes (5) #336: 2:18 am to 3:48 am every 30 minutes (3) #337: 1:31 am to 4:01 am every 30 minutes (5) #396: 1:15 am to 4:20					Mississauga Route 332 connects: Old Toronto, York, Etobicoke and Mississauga Route 927 connects: Etobicoke to Vaughan Route 996 connects: North York, Etobicoke, Old Toronto and Scarborough Routes 11 and 511 (Bramtpon) connect: Brampton Etobicoke and Mississauga Routes 1, 3, 4, 5, 7, 11, 20, 22, 23, 24, 26, 30, 35, 70, 71, 76, 101, 107, 108, 109 (MiWay) connect: Mississauga to Etobicoke Route 7, 12 and 13 (York) connect: Vaughan and Etobicoke Route 24 (York) connects: Markham, Etobicoke and North York

		am every 25 minutes (7) #900: 4:56 am to 1:30 am every 9 minutes (137) #927: 5:02 am to 1:27 am every 8 minutes (153) #937: 5:50 am to 7:18 pm every 15 minutes (54) #944: 6:46 am to 7:03 pm every 9 minutes (82) #945: 6:01 am to 9:03 am and 2:29 pm to 7:12 pm every 8 minutes (58) #952: 6:24 am to 9:31 am and 3:05 pm to 7:12 pm every 10 minutes (43)					
	York	<u>Routes:</u> #52: 4:37 am to 1:12 am every 6 minutes (206) #55: 5:29 am to 1:27 am every 30 minutes (40) #79: 5:05 am to 1:20 am every 10 minutes (122) #90: 5:25 am to 1:58 am every 10 minutes (123) #161: 5:06 am to 1:10 am every 20 minutes		Line #1: 3 stops Line #2: 1 stop	<u>KI:</u>		Routes 7, 29, 41, 47, 89, 307, 329, 341, 929, 935 and 941 connect: North York, York and Old Toronto Routes 30, 33, 55, 63, 71, 90, 126, 161, 168, 189, 312, 363 and 512 connect: Old Toronto and York Routes 32, 52, 352 and 952 connect: Old Toronto, York, North York, Etobicoke and Mississauga Routes 35, 335 and

		(60) #171: 4:01 am to 11:01 pm every 20 minutes (57) #189: 5:23 am to 1:21 am every 25 minutes (48) #363: 2:12 am to 4:06 am every 30 minutes (4) <u>Fleet:</u> XE40 (42 people), XDE40 (42 people),					989 connect: Old Toronto, York, North York and Vaughan Routes 59 and 109 connect: North York to York Route 79 connects: York, Etobicoke and Old Toronto Route 300 connects: Etobicoke, York Old Toronto, East York, Scarborough and Mississauga Route 332 connects: Old Toronto, York, Etobicoke and Mississauga
	Old Toronto	<u>Routes:</u> #11: 5:15 am to 1:10 am every 10 minutes (120) #13: 5:54 am to 10:00 pm every 25 minutes (39) #14: 5:37 am to 12:56 am every 25 minutes (46) #19: 5:07 am to 12:54 am every 15 minutes (79) #20: 4:50 am to 1:30 am every 15 minutes (83) #22: 5:12 am to 1:30 am every 10 minutes (122)	<u>Routes:</u> #304: 1:00 am to 3:37 am every 17 minutes (9) #306: 12:00 am to 1:30 am every 9 minutes (10) #310: 2:30 am to 5:00 am every 15 minutes (10)	<u>Line #1:</u> <u>Line #2:</u> 5:44 am to 1:48 am every 8 minutes (151)	<u>LW:</u> <u>MI:</u> 3:40 pm to 7:10 pm 6 times <u>KI:</u> 6:34 am to 10:34 pm 24 times <u>BR:</u> 9:53 am to 10:53 pm 16 times <u>RH:</u> 3:45 pm 4:45 pm 5:45 pm 6:45 pm <u>ST:</u> 9:13 am to	#16: 5:30 am to 12:30 pm 14 times connects Old toronto to Hamilton #21: 5:55 am to 2:20 am 60 times connects Old toronto, Mississauga and Milton #31: 5:51 am to 11:41 pm 10 times connects Old toronto, Mississauga, Brampton and Halton Hills #61: 9:25 am	Routes 7, 29, 41, 47, 89, 307, 329, 341, 929, 935 and 941 connect: North York, York and Old Toronto Routes 11 and 51 connect: Old Toronto, East York, North York and Markham Routes 12, 20, 23, 113 and 322 connect: Scarborough, East York and Old Toronto Routes 14, 61, 74, 97, 124, 162 and 320 connect: North York and Old Toronto Routes 24 and 324 connect: Old Toronto, Scarborough, East York, North York and

		#24: 4:49 am to 1:25 am every 7 minutes (177) #25: 5:20 am to 1:22 am every 10 minutes (120) #26: 5:40 am to 2:13 am every 30 minutes (41) #28: 6:06 am to 1:00 am every 27 minutes (42) #30: 5:30 am to 1:15 am every 25 minutes (47) #31: 5:25 am to 1:40 am every 13 minutes (93) #32: 4:37 am to 1:00 am every 7 minutes (175) #33: 6:37 am to 1:08 pm every 20 minutes (56) #34: 5:00 am to 1:28 am every 7 minutes (175) #35: 3:30 am to 1:30 am every 7 minutes (189) #40: 4:56 am to 1:35 am every 10 minutes (124) #47: 5:00 am to 1:45 am every 10 minutes (125)	#501: 4:27 am to 1:35 am every 10 minutes (127) #503: 5:19 am to 6:51 pm every 10 minutes (81) #504: 4:22 am to 1:52 am every 10 minutes (129) #505: 5:14 am to 1:32 am every 10 minutes (122) #506: 4:12 am to 12:52 am every 10 minutes (124) #509: 5:14 am to 1:29 am every 9 minutes (135)		12:13 am 17 times <u>LE:</u> 6:05 am to 12:06 pm 40 times	to 2:40 am 12 times connects Old Toronto, North York, Vaughan and Richmond Hill #63: 4:55 connect King, Vaughan and Old Toronto #65: 4:20 am to 12:05 pm 11 times connects East Gwillimbury, Newmarket, Aurora, King, Vaughan and Old Toronto #71: 6:43 am to 2:43 pm 6 times connects Old Toronto, Markham, Whitchurch Stouffville and Uxbridge	Markham Routes 25, 100, 325 and 925 connect: Old Toronto, East York and North York Routes 30, 33, 55, 63, 71, 90, 126, 161, 168, 189, 312, 363 and 512 connect: Old Toronto and York Routes 32, 52, 352 and 952 connect: Old Toronto, York, North York, Etobicoke and Mississauga Routes 34, 54, 70, 91, 334 and 354 connect: Old Toronto, East York, North York and Scarborough Routes 35, 335 and 989 connect: Old Toronto, York, North York and Vaughan Route 40 connects: Old Toronto, York and Etobicoke Routes 56, 62, 81, 87, 88, 92 and 93 connect: Old Toronto and East York Routes 80, 301 and 501 connect: Old Toronto and Etobicoke Routes 96 and 396 connect: Etobicoke, North York and Old Toronto

		#51: 5:10 am to 1:00 am every 20 minutes (60) #56: 5:30 am to 1:15 am every 20 minutes (59) #63: 5:18 am to 1:31 am every 7 minutes (173) #64: 5:46 am to 1:25 am every 15 minutes (79) #65: 5:15 am to 1:45 am every 11 minutes (112) #70: 5:00 am to 2:00 am every 12 minutes (105) #71: 5:21 am to 1:10 am every 14 minutes (85) #72: 5:03 am to 1:20 am every 7 minutes (174) #74: 6:00 am to 1:15 am every 20 minutes (58) #75: 5:18 am to 12:34 am every 10 minutes (116) #77: 5:35 am to 1:24 am every 17 minutes (70) #80: 5:15 am to 1:30 am every 25 minutes (49)	#510: 4:45 am to 1:44 am every 7 minutes (180) #511: 4:59 am to 1:36 am every 10 minutes (124) #512: 4:37 am to 1:42 am every 10 minutes (127)				Route 135 connects: Old Toronto and Scarborough Route 165 connects: North York, Old Toronto and Vaughan Route 300 connects: Etobicoke, York Old Toronto, East York, Scarborough and Mississauga Route 302 connects: Old Toronto, Scarborough and Markham Route 332 connects: Old Toronto, York, Etobicoke and Mississauga Route 996 connects: North York, Etobicoke, Old Toronto and Scarborough

		#82: 6:16 am to 12:20 am every 20 minutes (54) #83: 5:46 am to 1:00 am every 15 minutes (77) #87: 5:05 am to 1:20 am every 10 minutes (122) #89: 4:14 am to 1:30 am every 10 minutes (128) #94: 5:39 am to 12:52 am every 10 minutes (115) #113: 5:15 am to 1:45 am every 20 minutes (62) #121: 5:58 am to 1:10 am 20 minutes (58) #122: 5:53 am to 1:32 am every 10 minutes (118) #124: 5:58 am to 1:45 am every 15 minutes (79) #126: 5:45 am 12:45 am every 20 minutes (57) #127: 5:45 am to 1:10 am every 30 minutes (39) #135: 5:30 am to 1:45 am every 20 minutes (61) #168: 4:42 am to 2:06					

		am every 12 minutes (107) #302: 1:18 am to 5:18 am every 30 minutes (8) #312: 2:25 am to 4:55 am every 30 minutes (5) #320: 1:21 am to 4:28 am every 5 minutes (37) #322: 1:50 am to 5:20 am every 30 minutes (7) #324: 1:43 am to 4:13 am every 30 minutes (5) #341: 3:00 am to 4:30 am every 30 minutes (3) #352: 2:05 am to 5:35 am every 30 minutes (3) #365: 2:01 am to 5:01 am every 30 minutes (6) #925: 5:58 am to 10:03 pm every 10 minutes (97) #941: 6:08 am to 7:26 pm every 20 minutes (40) #989: 6:05 am to 9:09 am and 3:10 pm to 7:00 pm every 14 minutes (30)					

	East York	Routes: #8: 6:15 pm to 12:46 pm every 30 minutes (37) #23: 5:17 am to 1:57 am every 10 minutes (124) #62: 5:32 am to 12:55 am every 20 minutes (58) #81: 5:05 am to 1:20 am every 15 minutes (81) #88: 5:45 am to 1:00 am every 15 minutes (77) #92: 5:22 am to 1:00 am every 12 minutes (98) #93: 6:12 am to 1:00 am every 30 minutes (38)		Line #2: 1 stop			Route 11 connects: Old Toronto, East York, North York and Markham Routes 12, 20, 23, 113 and 322 connect: Scarborough, East York and Old Toronto Routes 24 and 324 connect: Old Toronto, Scarborough, East York, North York and Markham Routes 25, 100, 325 and 925 connects: Old Toronto, East York and North York Routes 34, 54, 70, 91, 334 and 354 connect: Old Toronto, East York, North York and Scarborough Routes 56, 62, 81, 87, 88, 92 and 93 connect: Old Toronto and East York Route 67 connects: Scarborough and East York Route 300 connects: Etobicoke, York Old Toronto, East York, Scarborough and Mississauga Route 924 connects: Scarborough, Markham, North York and East York
	North York	Routes:		Line #1: 5:38	BR:	#19: 5:10 am	Routes 7, 29, 41, 47,

		#7: 6:00 am to 1:00 am every 10 minutes (114) #10: 5:30 am to 9:00 am and 3:00 pm to 6:30 pm every 30 minutes (14) #29: 4:02 am to 1:28 am every 8 minutes (161) #36: 4:42 am to 1:45 am every 6 minutes (211) #37: 5:22 am to 2:05 am every 17 minutes (73) #41: 4:42 am to 2:44 am every 7 minutes (189) #59: 5:46 am to 1:14 am every 20 minutes (58) #60: 4:50 am to 1:35 am every 8 minutes (156) #61: 5:26 am to 1:10 am every 20 minutes (59) #78: 6:15 am to 12:45 am every 20 minutes (56) #84: 5:15 am to 1:30 am every 7 minutes (174) #91: 4:59 am to 1:05 am every 20 minutes (60)		am to 1:45 am every 5 minutes (241) <u>Line #4:</u> 5:31 am to 1:04 am every 7 minutes (168)		to 12:10 am 36 times connects: Mississauga, Etobicoke, York and North York #27: 5:30 am to 1:15 am 25 times connects North York, Mississauga and Milton #32: 11:30 am to 7:05 pm 15 times connects North York, Vaughan and Brampton #33: 6:30 am to 1:30 am 27 times connects North York, Brampton, Halton Hill and Guelph #34: 3:00 am to 2:00 am 17 times connects North York and Mississauga #36: 5:50 am to 1:25 am 22 times connects North York and Brampton	89, 307, 329, 341, 929, 935 and 941 connect: North York, York and Old Toronto Route 11 connects: Old Toronto, East York, North York and Markham Routes 14, 61, 74, 97, 124, 162 and 320 connect: North York and Old Toronto Routes 24 and 324 connect: Old Toronto, Scarborough, East York, North York and Markham Routes 25, 100, 325 and 925 connect: Old Toronto, East York and North York Routes 32, 52, 352 and 952 connect: Old Toronto, York, North York, Etobicoke and Mississauga Routes 34, 54, 70, 91, 334 and 354 connect: Old Toronto, East York, North York and Scarborough Routes 35, 335 and 989 connect: Old Toronto, York, North York and Vaughan Routes 36, 73, 118 and 336 connect: North York and Etobicoke

		#97: 5:33 am to 1:00 am every 30 minutes (39) #98: 5:36 am to 1:00 am every 20 minutes (58) #99: 4:01 am to 10:43 pm every 15 minutes (75) #100: 5:06 am to 1:13 am every 10 minutes (121) #101: 6:00 am to 10:00 pm every 20 minutes (48) #104: 5:48 am to 1:00 am every 20 minutes (58) #105: 5:30 am to 2:13 am every 15 minutes (83) #106: 5:28 am to 2:27 am every 15 minutes (63) #107: 5:22 am to 2:51 am every 20 minutes (64) #108: 4:57 am to 1:29 pm every 15 minutes (62) #109: 5:30 am to 1:25 am every 20 minutes (60) #115: 6:10 am to 10:15 pm every 22 minutes (44)				#61: 9:25 am to 2:40 am 12 times connects Old Toronto, North York, Vaughan and Richmond Hill #66: 5:10 am to 6:05 pm 11 times connects East Gwillimbury, Newmarket, Vaughan and North York #67: 3:10 pm to 7:10 pm 5 times connects East Gwillimbury, Newmarket, Aurora, Richmond Hill and North York #92: 4:00 am to 1:30 am 26 times connects Oshawa, Whitby, Ajax, Pickering, Scarborough and North York #94: 5:30 am to 6:35 pm 14 times connects Pickering, Scarborough, North York	Routes 37, 60, 937 and 960 connect: North York, Etobicoke and Vaughan Routes 39, 42, 85, 95, 169, 339, 385, 395, 939, 985 and 995 connect: Scarborough and North York Routes 53, 167 and 953 connect: Scarborough, North York and Markham Routes 59 and 109 connect: North York to York Routes 84, 107, 108 and 160 connect: North York and Vaughan Routes 96 and 396 connect: Etobicoke, North York and Old Toronto Route 165 connects: North York, Old Toronto and Vaughan Route 353 connects: Scarborough, Markham, North York and Vaughan Route 924 connects: Scarborough, Markham, North York and East York Route 996 connects: North York, Etobicoke, Old

		#118: 5:30 am to 1:10 am every 25 minutes (47) #119: 6:00 am to 6:58 pm every 25 minutes (31) #120: 6:06 am to 1:27 am every 30 minutes (39) #125: 5:39 am to 1:09 am every 15 minutes (78) #160: 5:23 am to 9:26 pm every 22 minutes (44) #162: 6:25 am to 10:26 pm every 30 minutes (32) #165: 5:07 am to 1:34 am every 8 minutes (153) #167: 5:30 am to 1:30 am every 30 minutes (40) #307: 1:11 am to 4:11 am every 30 minutes (6) #325: 1:24 am to 4:24 am every 30 minutes (6) #329: 1:30 am to 5:00 am every 30 minutes (7) #335: 1:19 am to 3:49 am every 30 minutes (5)				and Mississauga #96: 6:10 am to 12:05 am 22 times connects, North York, Scarborough, Ajax, Whitby and Oshawa	Toronto and Scarborough Routes 2, 3, 300, 301, 302, 303, 304 and 305 (York) connect: Markham and North York Routes 5, 23, 77, 105, 107, 107b, 165 and 165f (York) connect: Vaughan and North York Route 24 (York) connects: Markham, Etobicoke and North York Route 88 (York) connects: King, Richmond Hill, Vaughan and North York Routes 90, 90b, 91, 91a, 91e and 99(York) connect: Richmond Hill, Markham and North York Route 96 (York) connects: Newmarket, Aurora, Richmond Hill, King, Vaughan and North York Route 98e (York) connects: North York, Markham, Richmond Hill, Aurora and Newmarket Route 98/99 (York) connects: East

		#339: 2:26 am to 5:08 am every 30 minutes (5) #384: 2:15 am to 5:15 am every 30 minutes (6) #395: 1:35 am to 4:35 am every 30 minutes (6) #929: 6:05 am to 9:55 pm every 8 minutes (119) #935: 5:05 am to 7:07 pm every 12 minutes (70) #960: 6:00 am to 9:54 pm every 10 minutes (95) #984: 6:30 am to 11:00 pm every 10 minutes (99) #985: 6:30 am to 1:00 am every 10 minutes (111) #996: 5:05 am to 7:52 pm every 10 minutes (89)					Gwillimbury, Newmarket, Aurora, Richmond Hill, Markham and North York
	Scarborough	<u>Routes:</u> #9: 4:55 am to 1:00 am every 17 minutes (71) #12: 5:10 am to 1:37 am every 5 minutes (245) #16: 5:15 am to 1:24 am every 12 minutes		Line #2: 3 stops Line #3: 5:45 am to 12:56 am every 7 minutes (164)	<u>ST:</u> <u>LE:</u>	#41: 5:00 am to 10:10 pm 41 times connects Pickering, Scarborough, Richmond Hill, Vaughan, Brampton, Mississauga, Oakville,	Routes 12, 20, 23, 113 and 322 connect: Scarborough, East York and Old Toronto Routes 17, 21, 68, 102, 129, 130 and 968 connect: Scarborough to Markham

		(101) #17: 4:58 am to 1:07 am every 15 minutes (81) #21: 5:05 am to 1:08 am every 15 minutes (80) #38: 4:57 am to 2:15 am every 17 minutes (75) #39: 4:55 am to 1:15 am every 10 minutes (122) #42: 5:13 am to 1:00 am every 15 minutes (79) #43: 5:10 am to 1:30 am every 10 minutes (122) #53: 4:17 am to 1:36 am every 10 minutes (128) #54: 4:42 am to 1:02 am every 10 minutes (122) #57: 4:47 to 1:09 am every 15 minutes (81) #67: 5:16 am to 1:10 am every 15 minutes (80) #68: 4:54 am to 1:40 am every 15 minutes (83) #69: 5:55 am to 1:30 am every 17 minutes (69)				Burlington and Hamilton #92: 4:00 am to 1:30 am 26 times connects Oshawa, Whitby, Ajax, Pickering, Scarborough and North York #94: 5:30 am to 6:35 pm 14 times connects Pickering, Scarborough, North York and Mississauga #96: 6:10 am to 12:05 am 22 times connects, North York, Scarborough, Ajax, Whitby and Oshawa	Routes 24 and 324 connect: Old Toronto, Scarborough, East York, North York and Markham Routes 34, 54, 70, 91, 334 and 354 connect: Old Toronto, East York, North York and Scarborough Routes 39, 42, 85, 95, 169, 339, 385, 395, 939, 985 and 995 connect: Scarborough and North York Routes 53, 167 and 953 connect: Scarborough, North York and Markham Route 67 connects: Scarborough and East York Route 135 connects: Old Toronto and Scarborough Route 300 connects: Etobicoke, York Old Toronto, East York, Scarborough and Mississauga Route 302 connects: Old Toronto, Scarborough and Markham Route 353 connects: Scarborough, Markham, North York and Vaughan Route 924 connects:

		#85: 4:13 am to 12:50 am every 5 minutes (253) #86: 4:50 am to 1:25 am every 7 minutes (176) #95: 4:20 am to 1:25 am every 10 minutes (127) #102: 4:28 am to 1:04 am every 5 minutes (247) #116: 4:50 am to 1:37 am every 9 minutes (139) #129: 5:24 am to 1:50 am every 10 minutes (123) #130: 5:40 am to 1:15 am every 20 minutes (59) #131: 5:18 am to 1:24 am every 10 minutes (121) #132: 5:31 am to 1:00 am every 15 minutes (78) #133: 4:59 am to 1:55 am every 10 minutes (126) #134: 4:54 am to 1:57 am every 7 minutes (l80) #169: 5:19 am to 1:08 am every 25 minutes (48)					Scarborough, Markham, North York and East York Route 996 connects: North York, Etobicoke, Old Toronto and Scarborough Routes N1, 900 and 920 (Durham) connect: Oshawa, Whitby, Ajax, Pickering and ScarboroughPickering

		#334: 2:12 am to 5:42 am every 30 minutes (7) #343: 2:00 am to 4:30 am every 30 minutes (5) #353: 1:48 am to 4:48 am every 30 minutes (6) #354: 2:11 am to 5:11 am every 30 minutes (6) #385: 2:11 am to 4:10 am every 30 minutes (4) #902: 6:10 am to 6:30 pm every 10 minutes (74) #905: 6:24 am to 2:33 pm every 12 minutes (41) #924: 6:02 am to 9:30 am and 3:15 pm to 6:55 pm every 10 minutes (43) #938: 7:00 am to 9:30 am and 2:45 pm to 6:13 pm every 15 minutes (24) #939: 5:27 am to 1:26 am every 8 minutes (150) #953: 5:15 am to 9:56 am and 2:53 pm to 7:39 pm every 12 minutes (47)					

		#954: 6:26 am to 8:54 am and 3:20 pm to 6:47 pm every 10 minutes (39) #968: 6:08 am to 9:54 am and 3:00 pm to 6:28 pm every 15 minutes (29) #986: 6:02 am to 9:02 am and 3:32 pm to 6:56 pm every 6 minutes (64) #995: 6:00 am to 6:38 pm every 13 minutes (58)					
Durham (l)	Uxbridge	<u>On Demand:</u> On demand connects you to the nearby main bus stop from 6:00 am to 12:00 am <u>Fleet:</u> D40LF (39 people), XD40 (42 people) Average: 41.25				#70: 5:43 am to 9:40 pm 14 times connects Uxbridge, Whitchurch Stouffville and Markham #71: 6:43 am to 2:43 pm 6 times connects Old Toronto, Markham, Whitchurch Stouffville and Uxbridge	Route 905 connects: Whitby, Oshawa, Scugog and Uxbridge
	Pickering	<u>Routes:</u> #101: 5:50 am to 8:46 am and 2:53 pm to 6:24 pm every 30 minutes (13) #103: 5:15 am to 7:13 pm every 20 minutes (42)			<u>LE:</u>	#41: 5:00 am to 10:10 pm 41 times connects Pickering, Scarborough, Richmond Hill, Vaughan, Brampton, Mississauga,	Routes N1, 900 and 920 connect: Oshawa, Whitby, Ajax, Pickering and Scarborough Routes 211 and 291 connect: Ajax and Pickering

		#110: 5:50 am to 9:25 pm every 30 minutes (31) #112: 5:21 am to 7:49 pm every 30 minutes (29) #120: 6:01 am to 9:37 pm every 30 minutes (31) #900: 4:56 am to 10:55 pm every 15 minutes (72) <u>On Demand:</u> On demand connects you to the nearby main bus stop from 6:00 am to 12:00 am				Oakville, Burlington and Hamilton #52: 3:30 pm and 4:30 pm connects Vaughan, Richmond Hill, Markham, Pickering,Whitby and Oshawa #56: 3:40 am to 10:30 pm 35 times connects Oshawa, Whitby, Pickering, Markham, Richmond Hill, Vaughan, Brampton, Mississauga and Oakville #92: 4:00 am to 1:30 am 26 times connects Oshawa, Whitby, Ajax, Pickering, Scarborough and North York #94: 5:30 am to 6:35 pm 14 times connects Pickering, Scarborough, North York	Routes 916 and 917 connect: Oshawa, Whitby, Ajax and Pickering

						and Mississauga	
	Ajax	<u>Routes:</u> #211: 6:00 am to 6:45 pm every 30 minutes (26) #216: 5:20 am to 9:28 pm every 20 minutes (48) #222: 5:52 am to 8:50 am and 4:10 pm to 6:25 pm every 45 minutes (7) #224: 5:14 am to 9:22 pm every 30 minutes (32) #291: 9:48 am to 3:40 pm every 2 hours (3) #915: 3:45 am to 11:15 pm every 20 minutes (59) #917: 4:35 am to 11:52 pm every 30 minutes (39) <u>On Demand:</u> On demand connects you to the nearby main bus stop from 6:00 am to 12:00 am			<u>LE:</u>	#92: 4:00 am to 1:30 am 26 times connects Oshawa, Whitby, Ajax, Pickering, Scarborough and North York #96: 6:10 am to 12:05 am 22 times connects, North York, Scarborough, Ajax, Whitby and Oshawa	Routes N1, 900 and 920 connect: Oshawa, Whitby, Ajax, Pickering and Scarborough Routes 211 and 291 connect: Ajax and Pickering Route 915 connects: Ajax, Whitby and Oshawa Routes 916 and 917 connect: Oshawa, Whitby, Ajax and Pickering

	Whitby	<u>Routes:</u> #302: 5:06 am to 11:31 pm every 30 minutes (37) #319: 6:12 am to 9:05 am and 3:56 pm to 7:08 pm every 30 minutes (12) #392: 7:02 am to 7:02 pm every 30 minutes (24) #905: 5:36 am to 10:09 pm every 15 minutes (66) <u>On Demand:</u> On demand connects you to the nearby main bus stop from 6:00 am to 12:00 am			<u>LE:</u>	#52: 3:30 pm and 4:30 pm connects Vaughan, Richmond Hill, Markham, Pickering,Whitby and Oshawa #56: 3:40 am to 10:30 pm 35 times connects Oshawa, Whitby, Pickering, Markham, Richmond Hill, Vaughan, Brampton, Mississauga and Oakville #81: 9:08 am and 5:08 pm connects Whitby, Scugog and Brock #92: 4:00 am to 1:30 am 26 times connects Oshawa, Whitby, Ajax, Pickering, Scarborough and North York #96: 6:10 am to 12:05 am 22 times connects, North York,	Routes N1, 900 and 920 connect: Oshawa, Whitby, Ajax, Pickering and Scarborough Routes 302, 392, 403 and 409 connect: Whitby and Oshawa Route 905 connects: Whitby, Oshawa, Scugog and Uxbridge Route 915 connects: Ajax, Whitby and Oshawa Routes 916 and 917 connect: Oshawa, Whitby, Ajax and Pickering

						Scarborough, Ajax, Whitby and Oshawa	

	Oshawa	Routes: #N1: 24/7 every 30 minutes (48) #N2: 11:57 pm to 4:52 am every 30 minutes (10) #403: 5:53 am to 10:23 pm every 30 minutes (33) #405: 6:05 am to 10:05 pm every 30 minutes (32) #407: 5:30 am to 9:30 pm every 30 minutes (32) #409: 6:45 am to 6:45 pm every 30 minutes (24) #410: 5:50 am to 11:20 pm every 30 minutes (35) #411: 6:09 am to 8:09 pm every 30 minutes (28) #423: 6:03 am to 7:13 pm every 30 minutes (26) #901: 5:33 am to 11:27 pm every 15 minutes (36) #916: 4:32 am to 10:31 pm every 15 minutes (72) #920: 5:07 am to 8:55 pm every 15 minutes (63)			LE:	#52: 3:30 pm and 4:30 pm connects Vaughan, Richmond Hill, Markham, Pickering,Whitby and Oshawa #56: 3:40 am to 10:30 pm 35 times connects Oshawa, Whitby, Pickering, Markham, Richmond Hill, Vaughan, Brampton, Mississauga and Oakville #88: 5:40 am to 12:43 am 14 times connects Oshawa, Clarington and Peterborough #92: 4:00 am to 1:30 am 26 times connects Oshawa, Whitby, Ajax, Pickering, Scarborough and North York #96: 6:10 am to 12:05 am 22 times	Routes N1, 900 and 920 connect: Oshawa, Whitby, Ajax, Pickering and Scarborough Routes 302, 392, 403 and 409 connect: Whitby and Oshawa Routes 411 and 902 connect: Oshawa and Clarington Route 905 connects: Whitby, Oshawa, Scugog and Uxbridge Route 915 connects: Ajax, Whitby and Oshawa Routes 916 and 917 connect: Oshawa, Whitby, Ajax and Pickering

		<u>On Demand:</u> On demand connects you to the nearby main bus stop from 6:00 am to 12:00 am				connects, North York, Scarborough, Ajax, Whitby and Oshawa	
	Clarington	#502: 4:40 am to 11:46 pm every 30 minutes (38) #902: 5:12 am to 10:35 pm every 15 minutes (70) <u>On Demand:</u> On demand connects you to the nearby main bus stop from 6:00 am to 12:00 am				#88: 5:40 am to 12:43 am 14 times connects Oshawa, Clarington and Peterborough	Routes 411 and 902 connect: Oshawa and Clarington
	Scugog	<u>On Demand:</u> On demand connects you to the nearby main bus stop from 6:00 am to 12:00 am				#81: 9:08 am and 5:08 pm connects Whitby, Scugog and Brock	Route 905 connects: Whitby, Oshawa, Scugog and Uxbridge
	Brock	<u>On Demand:</u> On demand connects you to the nearby main bus stop from 6:00 am to 12:00 am				#81: 9:08 am and 5:08 pm connects Whitby, Scugog and Brock	

Table 0. Raw data collection of times and frequency of each route in the GTA

(a) https://www.triplinx.ca/en/schedules/23
(b) https://www.burlington.ca/en/transit/transit.aspx
(c) https://www.gotransit.com/en/see-schedules
(d) https://www.milton.ca/en/living-in-milton/schedules-and-maps.aspx
(e) https://www.haltonhills.ca/en/residents/activan-accessible-transit.aspx#Review-policies-and-passenger-charter
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(g) https://www.mississauga.ca/miway-transit/maps/miway-route-maps/
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(j) https://www.yrt.ca/en/schedules-and-maps/service-schedules.aspx
(k) https://www.ttc.ca/routes-and-schedules/listroutes/streetcar
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