



STAFF REPORT ACTION REQUIRED

Ridership Growth Strategy 2018-2022 – Preliminary Report

Date:	December 11, 2017
To:	TTC Board
From:	Chief Executive Officer

Summary

The Ridership Growth Strategy (RGS) 2018-2022 – Preliminary Report is divided into two main sections. Section A analyzes the current state of TTC ridership within the context of the overall North American transit agencies, the unique characteristics of Toronto, and the changing customer behaviour trends in how public transit is used.

Section B of the report outlines strategies to address the issues summarized in Section A. It includes three strategic critical paths that support the 2018-2022 Corporate Plan aimed at delivering dual objectives of growing future ridership and mitigating ridership loss. These strategic critical paths are:

1. Move more customers, more reliably
2. Make taking public transit seamless
3. Innovate for the long term

Staff will present the recommended RGS Action Plan 2018-2022, recommended 2018 Work Plan, and the RGS Consultation Plan at the January 25, 2018 Board Strategy session, which is a public meeting..

Recommendations

It is recommended that the Board:

1. Receive the Ridership Growth Strategy 2018-2022 - Preliminary Report for information
2. Endorse the next steps, which include staff presenting the recommended RGS Action Plan 2018-2022, recommended RGS 2018 Work Plan, and the RGS Consultation Plan for discussion at the January 25, 2018 Board Strategy Session.

Financial Impact

This report has no financial impact on the 2017 or the 2018 operating budgets.

Subsequent Board reports will include a financial impact assessment of any initiatives required to deliver the RGS.

The Chief Financial Officer has read this report and agrees with its content.

Decision History

This work builds on the initial Ridership Growth Strategy, which was developed in 2003.

https://www.ttc.ca/PDF/Transit_Planning/ridership_growth_strategy_2003.pdf

At the March 2016 meeting, the TTC Board received a Ridership Update 2016 Report

http://www.ttc.ca/About_the_TTC/Commission_reports_and_information/Commission_meetings/2016/March_23/Reports/2016_Ridership_Update.pdfv

Commissioner Carroll moved a motion:

That TTC staff report back to the Commission by the third quarter of 2016 with a development plan for a comprehensive multi-year strategy to address current ridership stagnation and to achieve a steady rate of ridership growth annually thereafter.

http://www.ttc.ca/About_the_TTC/Commission_reports_and_information/Commission_meetings/2016/March_23/Reports/Decisions/5_2016_Ridership_Update.pdf

At the July 2016 meeting, the TTC Board received a Ridership Update 2016 Report

http://www.ttc.ca/About_the_TTC/Commission_reports_and_information/Commission_meetings/2016/July_11/Reports/3_2016_Ridership_Update.pdf

At the November, 2017 meeting, the TTC Board received the Subway Closures 2017 Year in Review and 2018 Forecast report

https://www.ttc.ca/About_the_TTC/Commission_reports_and_information/Commission_meetings/2017/November_13/Reports/10_Subway_Closures_2017_Year_in_Review_and_2018_Forecast.pdf

Issue Background

The last five years have seen significant improvements and modernization efforts in all areas of the TTC. This transformation has been acknowledged by customers, who report a significantly improved satisfaction score, and the organization's APTA peers who awarded the Transit of the Year Award to the TTC in 2017.

While the highly visible improvements the TTC continues to make have been recognized by the organization's stakeholders, the ridership growth trajectory, except for off-peak bus ridership, leveled in the past three years. This trend is expected to continue in 2018.

Accessibility and Equity Matters

The TTC is working towards making Toronto's transit system barrier free by implementing changes that will make its services and facilities accessible to everyone. Its current initiatives will increase the number and geographic coverage of accessible transit services and facilities as well as satisfy AODA requirements.

Initiatives outlined in this report support the accessibility plan as well as the City's Poverty Reduction Strategy (2015), and the Ontario Human Rights Code with a strong push to bring the TTC closer to the objective of being a barrier free transit system.

Comments

Section A – Ridership Analysis

The TTC is the third largest transit system in North America. Its vision is to provide a high quality, reliable, efficient and accessible transit service where what customers need and what is delivered is what matters most.

The benefits of the transformation and modernization at the TTC over the last five years are reflected in the daily service, including:

- 21 per cent reduction in delay minutes to subways
- 6.5 per cent reduction in subway delay incidents
- 86 per cent reduction in short turns to buses and streetcars.

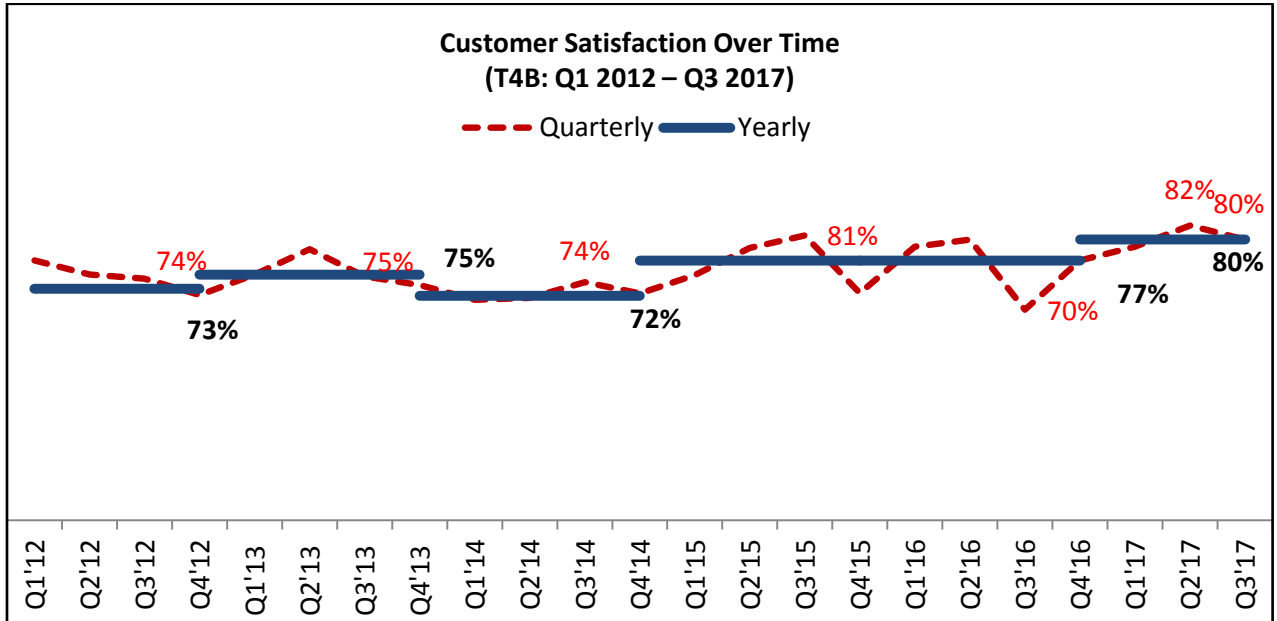
In addition, service improvements designed to attract new customer rides were introduced. This includes:

- introducing new periods of operation (all-day, every-day network)
- introducing new express bus services
- improving off-peak crowding standards
- introducing a 10-minute-or-better network.

The organization's efforts have not gone unnoticed. The American Public Transportation Association named the TTC Transit System of the Year 2017 and, more importantly customers have noticed, with customer satisfaction rising consistently, trending now at 80

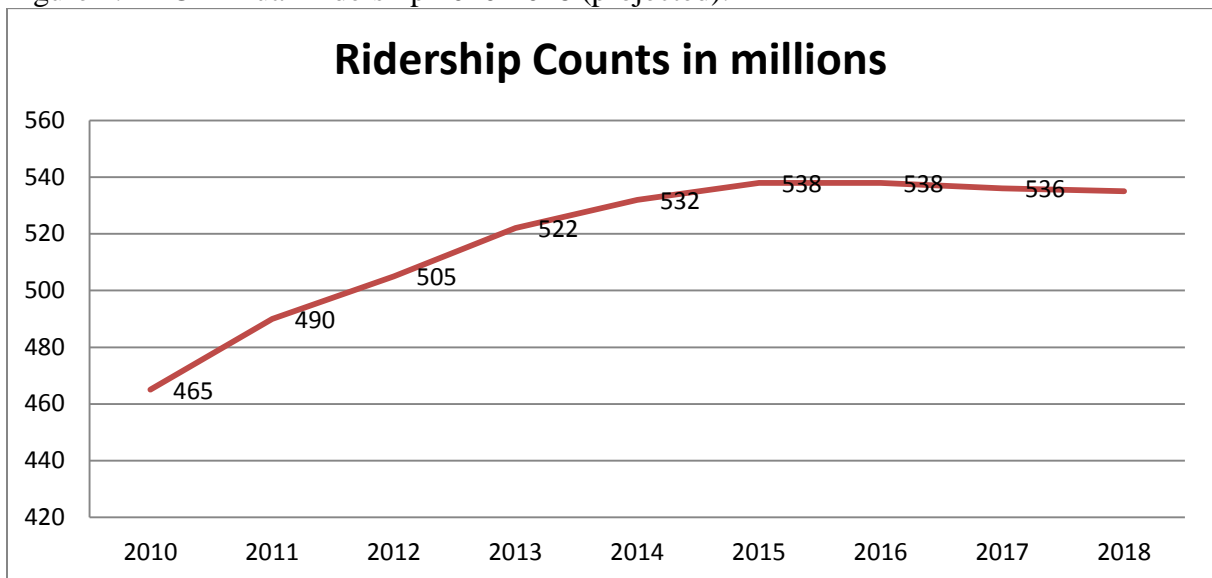
per cent (Q3, 2017), up five percentage points in just five years, a statistically significant improvement and one that reflects customers' increasing satisfaction with virtually every aspect of the TTC's service.

Figure 1: Customer Satisfaction Scores 2012 to 2017:



While the highly visible improvements the TTC continues to make have been recognized by the organization's stakeholders, the ridership growth trajectory, except for off-peak bus ridership, leveled in the past three years. This trend is expected to continue in 2018.

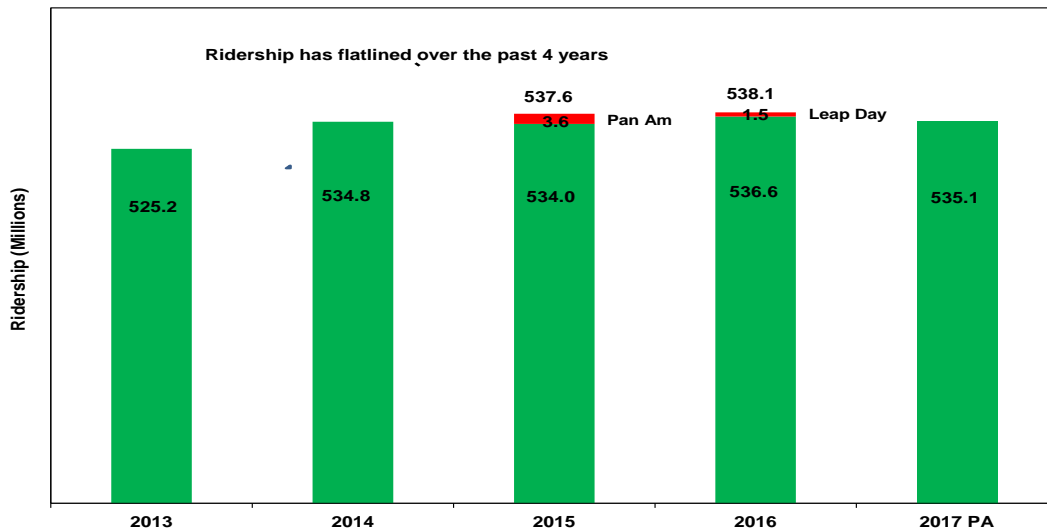
Figure 2: TTC Annual Ridership 2010-2018 (projected):



TTC Ridership Trends

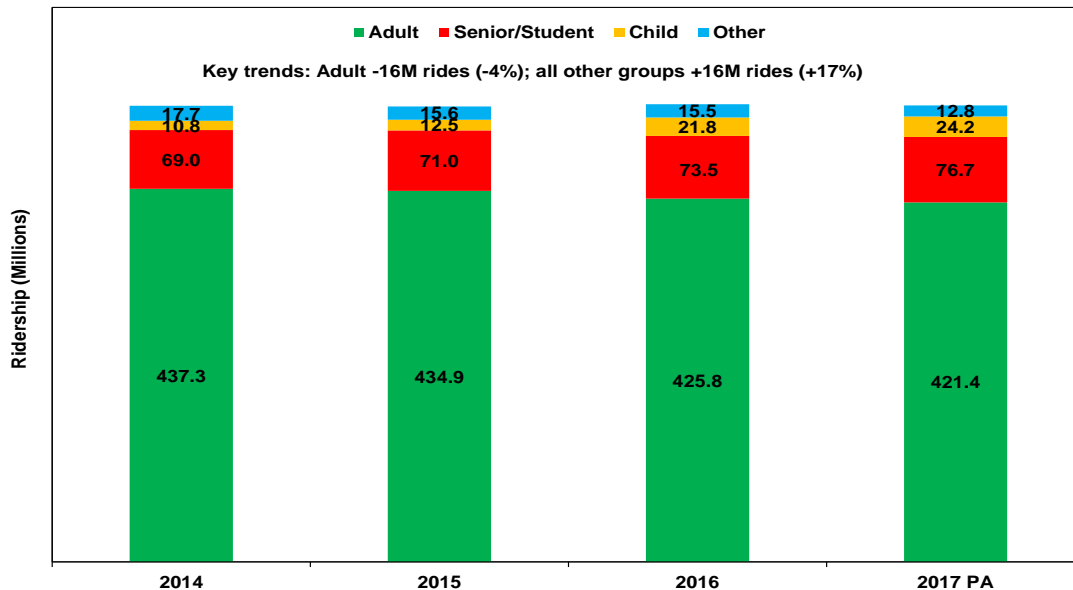
The most recent year with any significant ridership growth was in 2014 (+1.8%). Excluding the additional ridership from the Pan Am Games in 2015 and the extra day in 2016 (leap year), ridership has stabilized over the past three years (2014 to 2017).

Figure 3: TTC Ridership Growth 2014-2017:



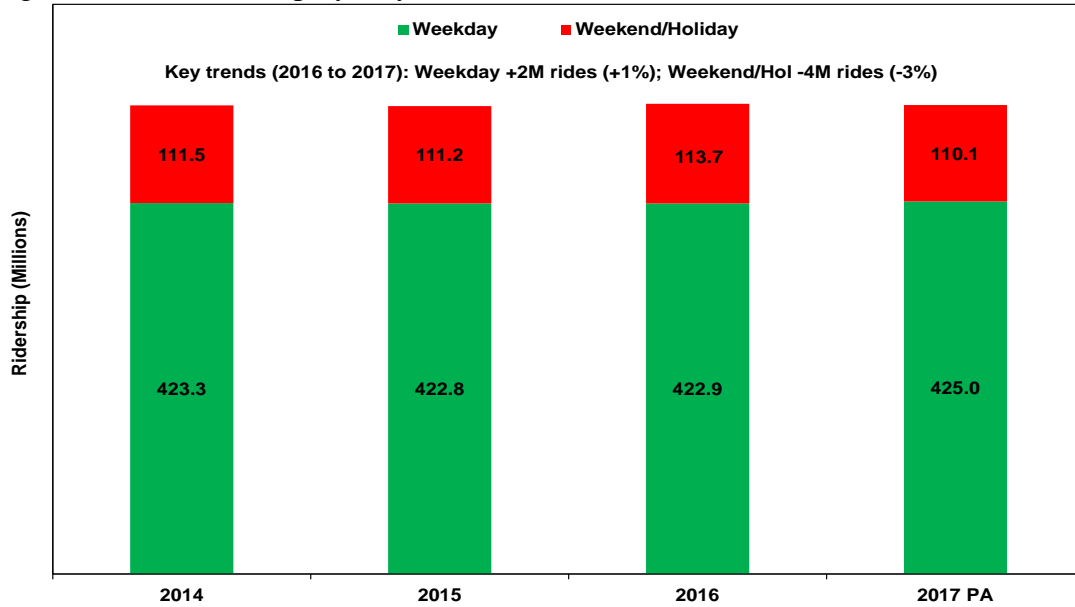
Adult ridership has seen the sharpest decline since 2014. In total, 16 million yearly rides have been lost, while the Adult Metropass has seen a significant decrease of 14% (403,000 passes) in annual sales over the same period.

Figure 4: TTC Ridership by Customer Group 2014-2017:



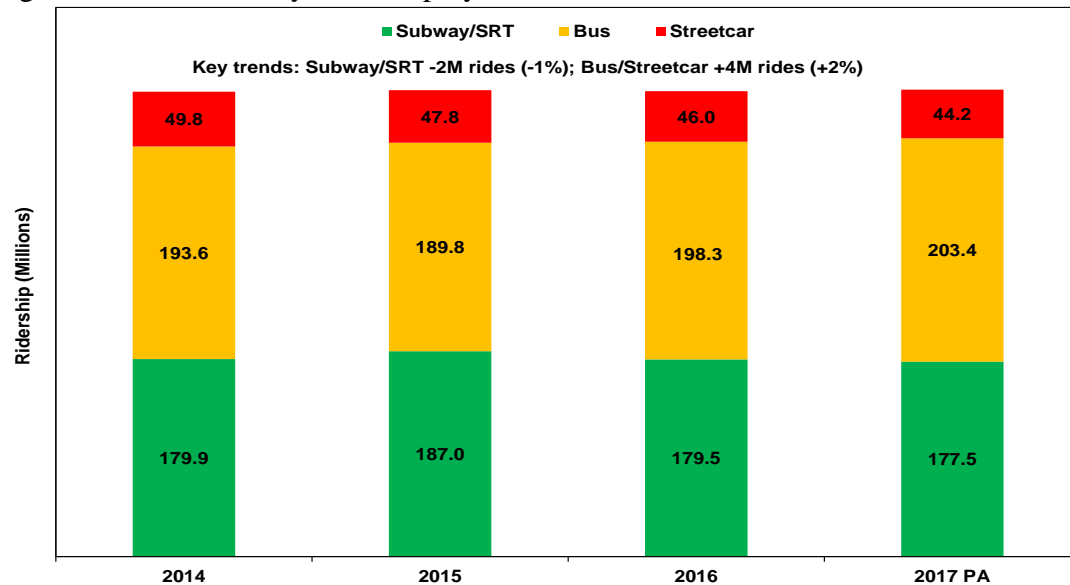
Weekday ridership has been stable while weekend/holiday ridership has decreased by 3% (4 million) in the past year.

Figure 5: TTC Ridership by Day of Week 2014-2017:



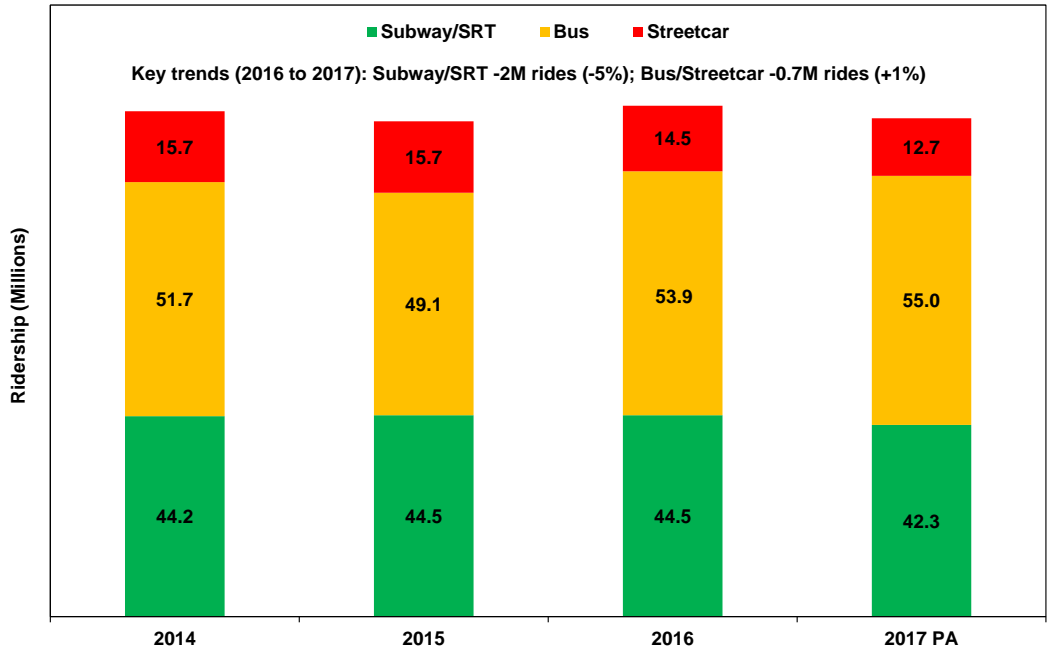
Ridership has been stable on weekdays with a 2% (4 million) increase in bus/streetcar use offsetting a small 1% (2 million) decrease in subway/SRT rides.

Figure 6: TTC Weekday Ridership by Vehicle Mode 2014-2017:



Weekend subway/SRT ridership has seen a 5% decline, which may be attributable to the necessary weekend closures to modernize the system.

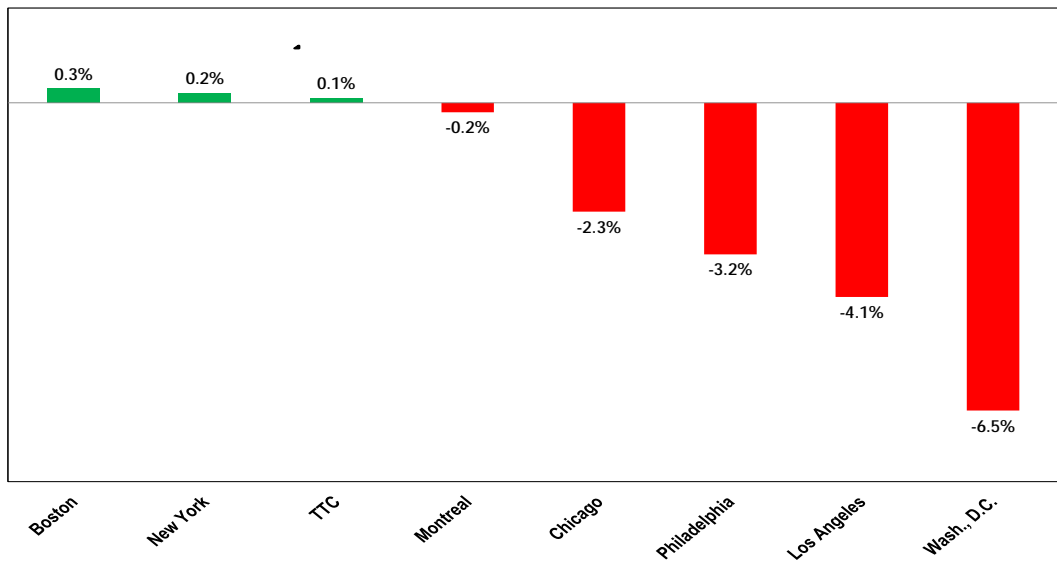
Figure 7: TTC Weekend/Holiday Ridership by Vehicle Mode 2014-2017:



Beyond the TTC

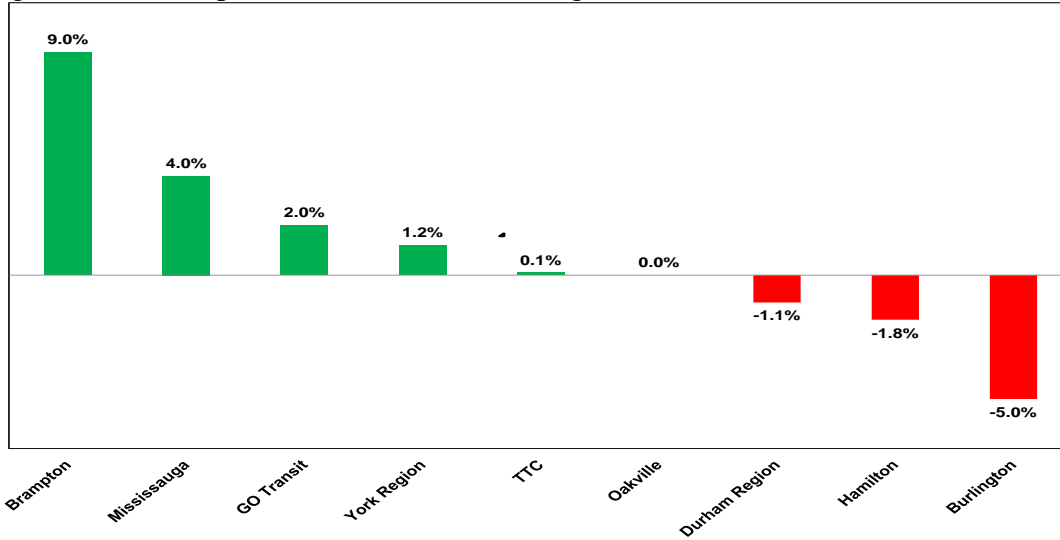
The current soft ridership trends are not unique to the TTC; similar results are occurring across the GTHA, Canada, and the United States. Ridership trends for eight large-scale, multi-modal (combinations of heavy rail, light rail, bus) transit agencies in Canada and the U.S., the most relevant comparators to the TTC, show growth rates ranged from 0.3% to -6.5%, with an unweighted average of -2.0%; the TTC ranked third-highest with positive growth of 0.1%.

Figure 8: 2016 Ridership Growth Rates – Major Multi-Modal Agencies:



In 2016, growth rates ranged from 9% to -5%. The TTC ranked fifth-highest at 0.1%. Of note is that the municipal transit agencies (Brampton, Mississauga, York Region) with higher growth rates than the TTC are also expanding their rapid service networks with Zum, Transitway, and VivaNext respectively.

Figure 9: Ridership Growth Rates – GTHA Agencies 2016:

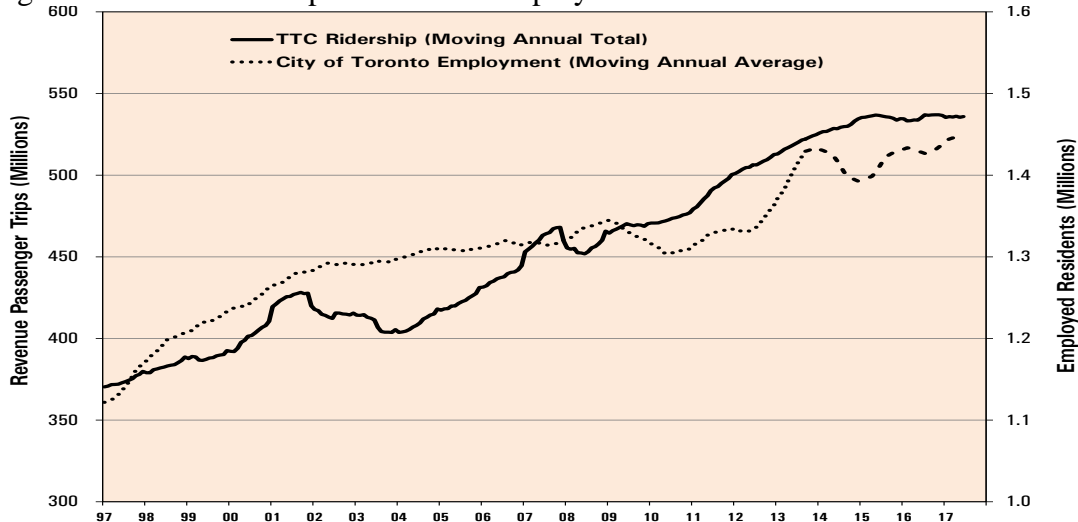


External Factors impacting transit in Toronto

Economic factors

Historically, city of Toronto employment levels have had the most significant impact on ridership, as can be seen in the following chart of the past 20 years:

Figure 10: TTC Ridership vs. Toronto Employment 1997-2017:



In recognition of the employment-ridership relationship, the TTC uses economic forecasts from the Toronto Census Metropolitan Area (CMA) that are produced by the Conference Board of Canada (CBoC) to establish its ridership forecasts. These forecasts, which include predicted growth in employment, Gross Domestic Product (GDP), population, and inflation, are subject to ongoing refinement by the CBoC.

This is illustrated in the following table, which compares the CBoC’s three most recent economic forecasts for 2018:

TORONTO CMA ECONOMIC FORECASTS FOR 2018			
MEASURE	AS AT WINTER 2017	AS AT SPRING 2017	AS AT AUTUMN 2017
Employment	+2.2%	+2.3%	+1.1%
GDP	+2.5%	+2.5%	+2.5%
Population	+1.5%	+1.4%	+1.5%
CPI	+1.9%	+2.0%	+2.0%

Of note is that employment growth has been lowered significantly in the most recent forecast. The predicted growth of 1.1% is reflective of the average annual employment growth of 1.4% from 2014 to 2017, which, in turn, was much lower than the average annual growth of 2.4% from 2010 to 2013.

The slowing employment growth rates are mirrored in the TTC’s ridership growth.

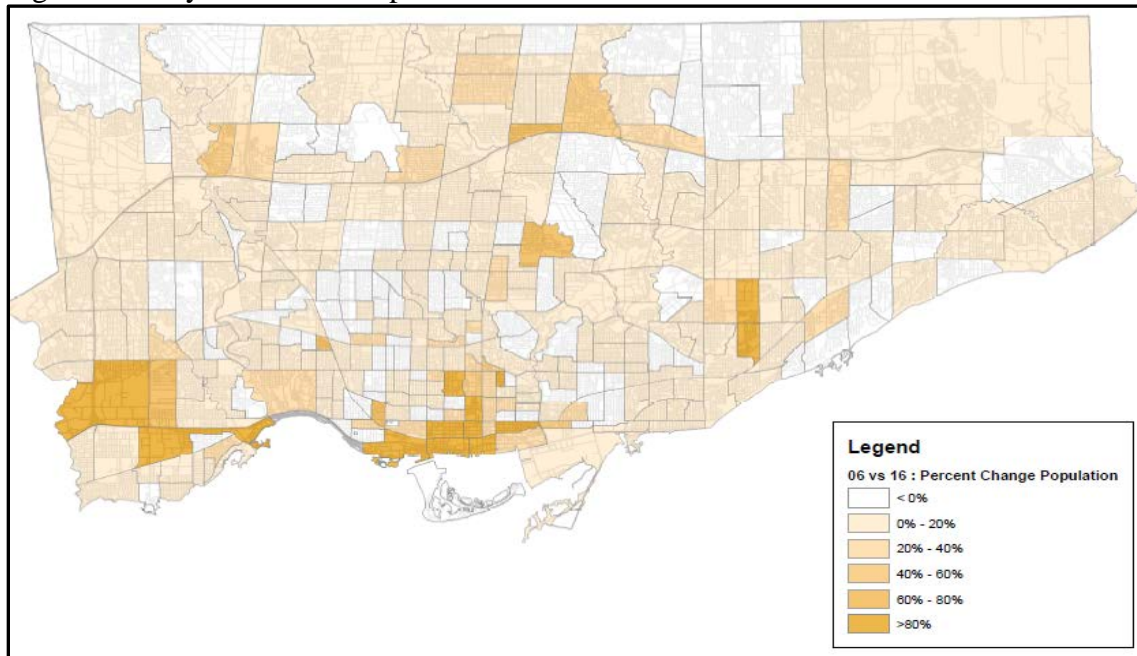
City Growth & Congestion

The 2016 population of Toronto is 2,731,571, a nine percent increase over the last decade, which saw the city’s population grow by 228,290.

Year range	Growth	% change	Total
2006 - 2011	111,779	4.5%	2,651,060
2011-2016	116,511	4.5%	2,731,571

The majority of the growth (~ 50%) occurred south of Line 2 along major streetcar routes between Victoria Park Avenue in the east and the Humber River in the west. Of note are Liberty Village and Queen St. W. between Shaw St. and Dovercourt, which saw their populations grow by 175% and 109% respectively. Figure 11 below highlights the highest population growth areas across the city.

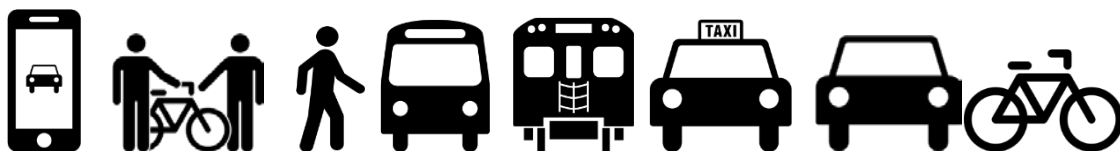
Figure 11: City of Toronto Population Growth 2006-2016:



With the abundance of personal vehicles and the overall ease of parking across the city, especially downtown, the population growth has likely contributed to the increased congestion and slower traffic in Toronto, which, in turn, has affected the TTC's surface transit (bus and streetcar) network.

Changes in mobility

Over the past decade, major shifts in demographics, travel behaviour, and technology have changed how people travel in cities. Millennials, the aging population, etc. are driving trends and causing changes to the transportation system. A multitude of mobility options, including cycling, walking, bike and car sharing, in Toronto have been growing rapidly and are becoming more and more tailored to the individual and trip type. The transportation system has shifted from a traditional model of owning a car or using public transit, to a "mobility as a service" system where one either owns their car or accesses a shared-car/bike alternative. People are choosing the best (based on trip time, cost, comfort, convenience, etc.) mobility option based on the trip they need to make at any given time.



While further review of the recently released 2016 Census data is required, initial reviews show Torontonians are commuting to work via public transit (37%), cycling (2.75%) or walking (8.6%) than they did ten years ago, while fewer are using a personal vehicle (46%).

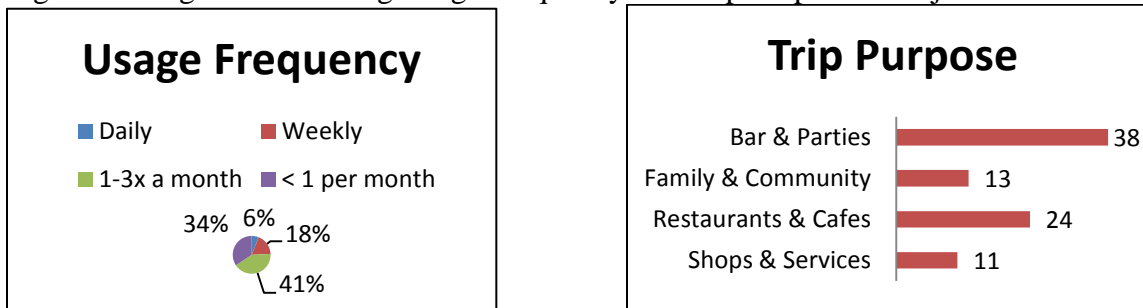
The TTC is committed to supporting this shift to more sustainable travel and will continue to work on facilitating first and last mile multi-modal integration.

The impact of digital ride-hailing

A strong example of this new travel behaviour is the rise of digital ride-hailing as a travel option, which has a direct negative effect on intra-city transit. Data from a recent study, *Disruptive Transportation: The Adoption, Utilization, and Impacts of Ride-Hailing in the United States*, of seven major U.S. cities confirmed that within cities, digital ride-hailing is used as a substitute to conventional transit.

Although there is a lack of available data from ride-hailing companies, according to the study results 21% of urban Americans used the service. The figures skew higher for city dwellers (29%), younger adults (36%), college-educated (53%) and higher-income individuals (58%). A Pew Research Centre survey in 2016, *Shared, Collaborative and On Demand: The New Digital Economy*, found that 18 to 29 year-olds are seven times as likely to use these services as are those age 65 and older. According to the survey, digital ride-hailing usage frequency and trip purpose are as follows:

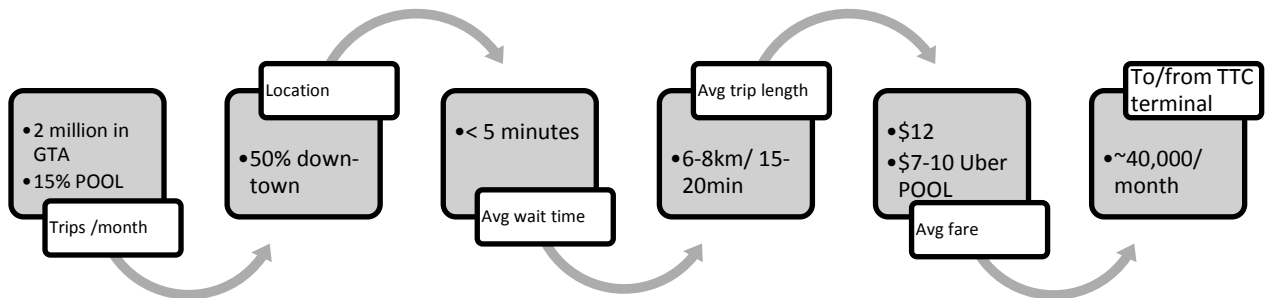
Figure 12: Digital ride-hailing Usage Frequency and Trip Purpose in major US cities:



49%-61% of these trips are net new or replacing transit, walking, or cycling. This has had an overall negative impact on conventional transit with a 6% decline in transit use (surface ridership -6% and light rail -3%) from survey respondents. On the contrary, the service serves to complement commuter rail, which saw a 3% increase in use.

Digital ride-hailing in Toronto

Initial Uber data from February 2017 shows the following trends:



This data seems to suggest the following:

1. Uber trips are spread across the city, and are aligned with population growth data
2. Average wait-time and trip cost are competitive advantages for the company

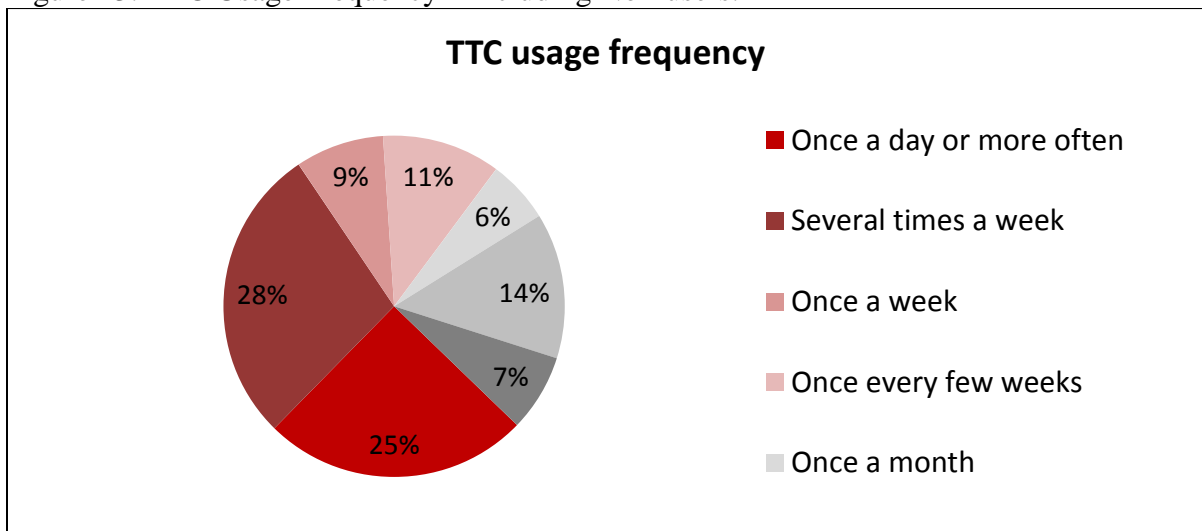
However, TTC staff need to review this in more detail with Uber before firm insights can be made. The company has expressed willingness to work with TTC staff so they and the TTC can gain further understanding of Toronto-specific digital ride-hailing trends.

With Lyft, the other major North American digital-ride hailing provider, recently choosing Toronto as its first international city for expansion, the TTC will also engage with them in understanding mobility trends.

Customer insights

A recent study conducted by the TTC to understand reasons individuals choose not to use the transit service found that 73% of the Torontonians surveyed use the TTC regularly, with the remaining 27% considered non-users. Below is a breakdown of the respondents' usage of the TTC with users in red and non-users in grey.

Figure 13: TTC Usage Frequency – including Non-users:



While TTC customers reflect the diversity of Toronto and cannot be lumped into a single group, there are common key factors that influence customers' and non-users' decisions to take a trip using the TTC.

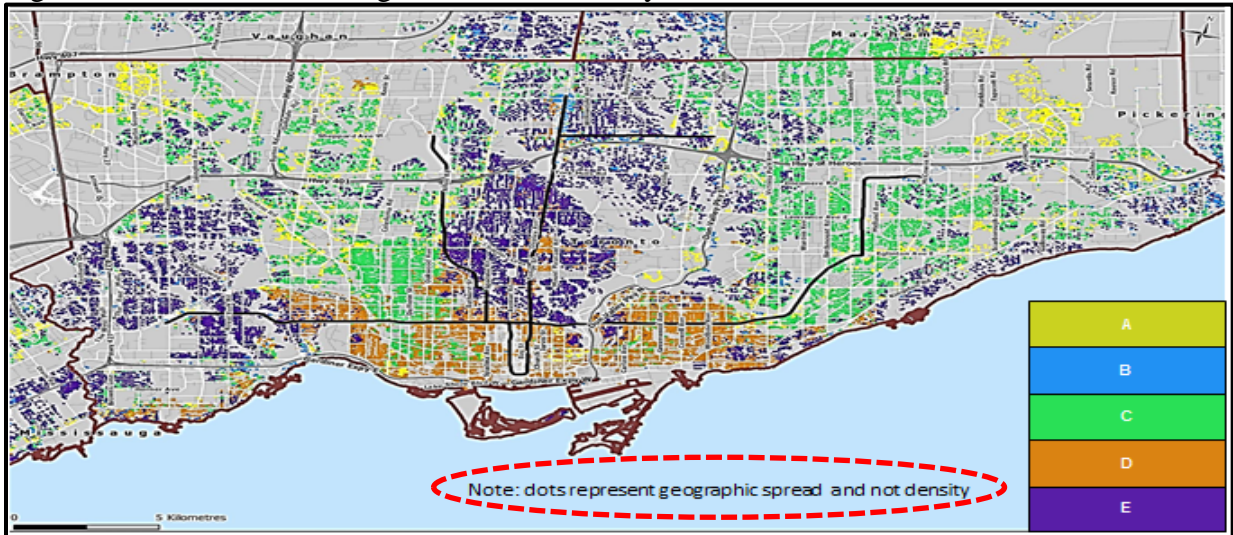
Customer Segments

The TTC customer base, which is widespread throughout the city, can be categorized into five groups, each with unique characteristics and needs.

Figure 15: TTC Customer Segments – Demographics & Implications:

	A	B	C	D	E
Life stage	Diverse families new to Toronto with younger children at home	University-educated diverse couples and singles	Middle-aged, diverse, families with older children at home	Younger singles and couples, some with young children at home	Higher income middle-aged and older families with older children at home
Ridership	Frequent bus riders	Frequent bus & subway riders	Frequent bus & subway riders	Frequent streetcar & subway riders	Occasional subway riders
Overall satisfaction	73%	72%	74%	77%	80%
Value for money	61%	61%	60%	65%	67%
Pride	79%	72%	73%	70%	68%
Key Characteristics	<ul style="list-style-type: none"> • Trips are most likely off-peak • Recent immigrants who may not speak English • Tend to have young families • Financially prudent 	<ul style="list-style-type: none"> • Live outside of core and have long commutes • Recent immigrants who may not speak English • Appreciate accessible information • Interested in a healthy lifestyle and cultural events 	<ul style="list-style-type: none"> • Likely to own a car • Busy families who like to plan ahead • Heavy consumers of online content • Financially prudent 	<ul style="list-style-type: none"> • Hyper-local riders who use the TTC during all hours • Spontaneous and enjoy attending cultural activities • Mobile savvy • Value creativity • Will use cabs/ride-hailing if it is more convenient 	<ul style="list-style-type: none"> • Use the TTC the least out of all groups • Established in the City and community • Invested in improving the image of Toronto

Figure 16: TTC Customer Segment Distribution by Postal Code:



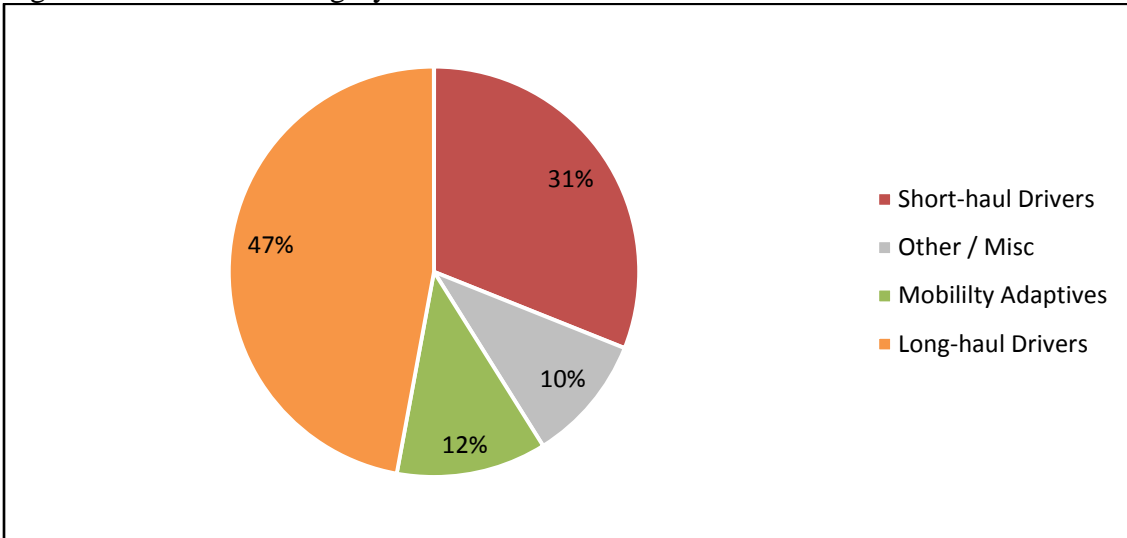
Non-user categories

The 27% of survey respondents who do not use the TTC tend to be older (24 to 59 – 23%; 55 and above – 38%) and have higher household income (\$85K or more – 44%). They can be further segmented as:

Figure 17: Non-user Categories – Demographics & Needs

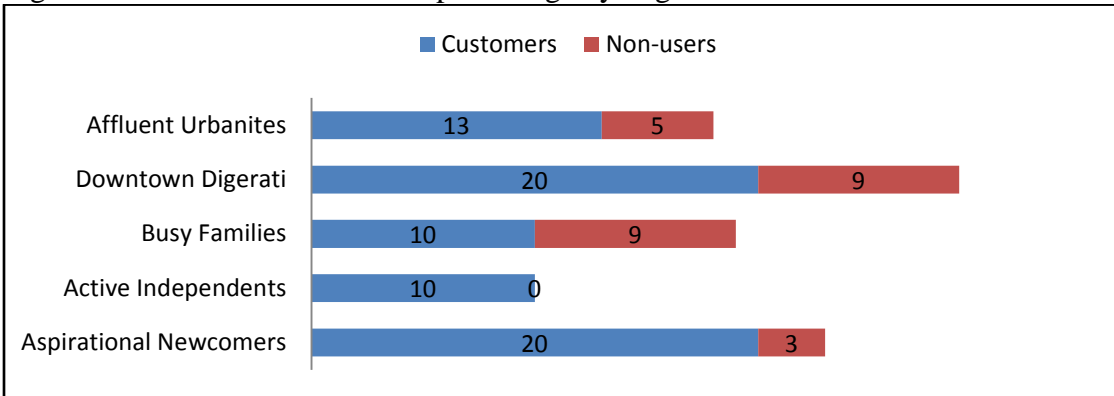
	Long-haul drivers	Short-haul drivers	Mobility adaptives
Life stage	Middle-income families	Higher House Hold Income / Employed Full Time	Younger, tech savvy / Lower House Hold Income
Travel time	25 - 30 min travel time (work, leisure, appointments)	< 25 min travel time (work or leisure)	> 30 min travel time (work, leisure, errands)
Travel mode	Personal vehicle	Personal vehicle	More likely to walk, bike, taxi/ride-hail
Key Characteristics	<ul style="list-style-type: none"> Always been infrequent TTC users Poor perceptions of Value for Money Perceive TTC as not flexible enough for their trip type Almost four in ten (37%) have used the TTC more frequently in the past five years 	<ul style="list-style-type: none"> Always been infrequent TTC users Poor perceptions of Value for Money Perceive TTC as not flexible enough for their trip type Low awareness of PRESTO One third (32%) have used TTC more frequently in the past 5 years 	<ul style="list-style-type: none"> Downtown dwellers Most travel within the core See TTC as an important option in their mobility toolkit One half (52%) has used the TTC more frequently in the past five years

Figure 18: Non-user Category Breakdown



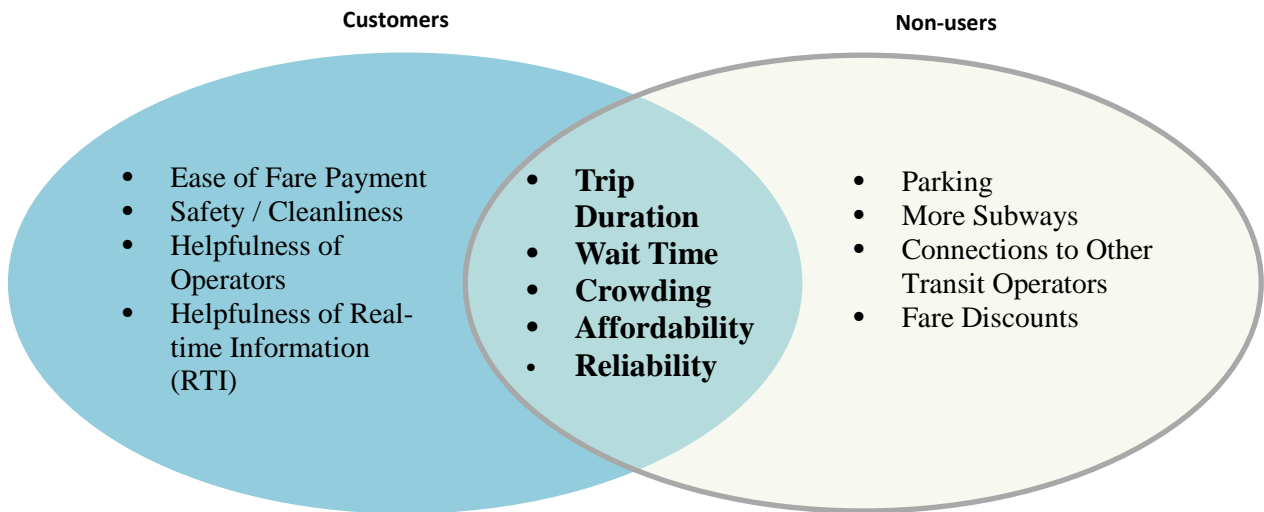
There is overlap in each segment between customers and non-users. Based on survey results, almost 50% of Segment C (middle-aged families) are non-users, while only 13% of Segment A (diverse families new to Toronto) do not use the TTC.

Figure 19: Customer & Non-user percentage by Segment



With multiple travel options available, Torontonians, including non-TTC users, continuously evaluate each trip based on the following question: What is the fastest, cheapest, and most convenient way for me to get from A to B and back? In general, the main needs and drivers of customer satisfaction of both groups overlap, as per Figure 14 below.

Figure 14: Customer and Non-user Needs & Drivers of Customer Satisfaction:



Section B - Strategies to Increase Ridership

Toronto's Official Plan considers transit investment as foundational to Toronto's growing economy. To meet the City's objectives, the TTC's RGS will put forward opportunities that are critical to *both* increase transit ridership in Toronto *and* prevent ridership loss over the next five years. It will enable the TTC to provide a high quality public transit service to customers in an increasingly competitive environment with multiple travel alternatives.

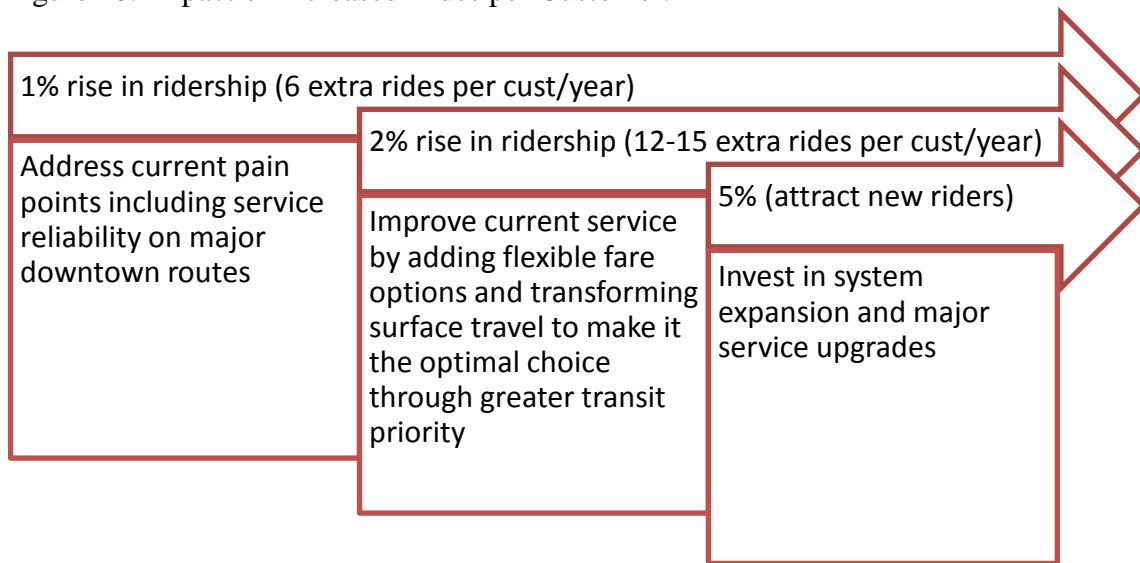
Based on customer needs and expectations, industry standards, as well as organizational and public priorities, there are three key strategies the TTC will focus the RGS on:

1. Move more customers, more reliably
2. Make taking public transit seamless
3. Innovate for the long term

The initiatives under each strategy range in complexity of implementation and expected impact. In general, current frequent customers are the most likely to increase their use of the TTC. The less frequently someone relies on the TTC, the more difficult it will be to encourage them to use the TTC more often.

With approximately 850,000 unique customers, the TTC has an opportunity to positively impact ridership growth by addressing current pain points, such as service reliability and flexibility, to encourage existing customers to choose the TTC for more of their travel in and around the city. Figure 20 illustrates the type of initiatives that will likely be required to increase ridership by 1%, 2% and 5% or more.

Figure 20: Impact of Increased Rides per Customer:



Overview of the next 5 years

Major Projects

The current RGS is developed in the context of already planned infrastructure and expansion projects designed to expand the TTC’s rapid transit capacity, improve current operations, and modernize the organization over the next five years. These major capital projects include new Light Rail Transit (LRT) lines (Line 5 Eglinton, Line 6 Finch West), full migration to PRESTO, and the replacement of the current Collector role to a modern, Customer Service Agent. Figure 21 illustrates the major projects that will increase system capacity or transform the customer experience over the next five years.

Figure 21: Major Projects 2018-2022

2018	2019	2020	2021	2022
<ul style="list-style-type: none"> • Line 1 extension • Stations Transformation • Full PRESTO implementation • Markham Rd Garage (Add. 50 buses) 	<ul style="list-style-type: none"> • ATC on Line 1 • Electric Bus Pilot • New streetcar delivery complete 	<ul style="list-style-type: none"> • McNicoll Garage (Add. 100+ buses) 	<ul style="list-style-type: none"> • Line 5 Eglinton 	<ul style="list-style-type: none"> • Line 6 Finch West

Fleet capacity constraints

The unreliability of the aging streetcar fleet, coupled with the delayed deliveries of new accessible streetcars, is causing the TTC to pull buses from bus routes to replace failing legacy streetcars on streetcar routes. In addition, the current lack of storage space for

additional buses until the McNicoll Garage opens limits the organization's ability to expand its fleet. See Figure 21 for how capacity and availability will change over the next five years.

Next Steps

The preliminary RGS and recommended RGS Action Plan, which outlines specific initiatives to deliver the RGS, are aligned to the new Corporate Plan and should be considered together. Staff will present the TTC Board with its new Corporate Plan 2018-2022, as well as the following, at its January 25, 2018 Board Strategy session, which is open to the public:

- Recommended RGS Action Plan 2018-2022
 - Updated ridership measurement approach
 - Alignment with Corporate Plan
 - Initiatives mapped to Customer Segments
- Recommended RGS 2018 Work Plan
 - Detailed schedule of 2018 activities to deliver Action Plan
- RGS Consultation Plan to develop all aspects of the RGS further.
 - Who, how, when we will engage with key stakeholders

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