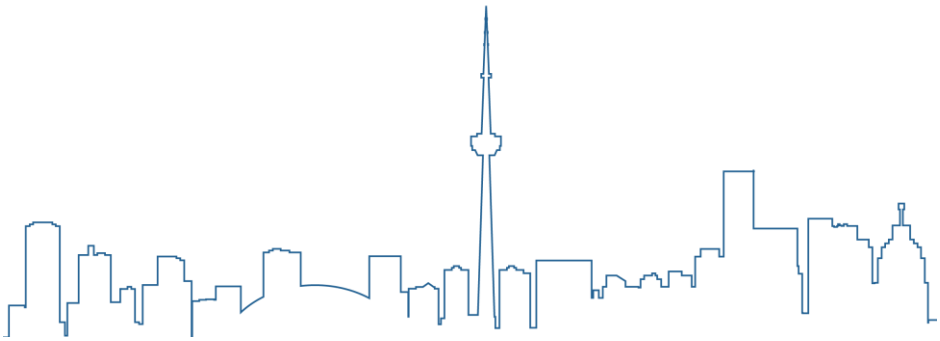
TORONTO



TRANSIT SERVICES

PROGRAM MAP

Toronto Transit Commission

Shaded boxes reflect the activities covered in this report

Transit services in the City of Toronto are delivered through the Toronto Transit Commission (TTC), which provides and maintains transit infrastructure and service including the operation and maintenance of an integrated transit system and a multi-modal fleet that includes buses, subways, streetcars and light rail transit.

The TTC is the third largest transit system in North America based on ridership after New York City and Mexico City. The TTC also provides special door-to-door transit service (Wheel-Trans) for persons with the greatest need for accessible transit as established by eligibility criteria based upon an individual's level of functional mobility. However, the results reported here exclude Wheel-Trans.

SUMMARY OF PERFORMANCE MEASUREMENT RESULTS

Question	Indicator/Measure	Internal Comparison of Toronto's 2016 vs. 2015 Results	External Comparison to Other Municipalities (MBNC) By Quartile for 2016	Chart & Page Ref.
Service Level Indicators				
How many vehicle hours of transit service are provided?	Transit In-Service (Revenue) Vehicle Service Hours per Capita (Service Level)	**Increase** **Vehicle hours of transit provided increased (service level indicator)**	**1** **Higher rate of transit vehicle hours per capita compared to others (service level indicator)**	33.1 33.2 pg. 5/6
Community Impact Measures				
How many transit passenger trips are taken by an average person in a year?	Number of Conventional Transit Trips per Capita in Service Area (Community Impact)	**Stable** **Transit usage was stable**	**1** **Higher rate of transit usage by residents compared to others**	33.3 33.4 pg. 7/8
Efficiency Measures				
What does it cost to operate a transit vehicle for an hour?	Operating Cost for Conventional Transit per In-Service Vehicle Service Hour (Efficiency)	**Decrease** **Operating cost per in-service vehicle hour decreased**	**4** **Higher operating cost per in-service vehicle hour compared to others (impacted by multi-modal fleet)**	33.5 33.6 pg. 9/10
What does it cost to operate a transit vehicle for an hour?	Total Cost for Conventional Transit per In-Service Vehicle Service Hour (Efficiency)	**Stable** **Total cost per in-service vehicle hour increased**	**3** **Higher total cost per in-service vehicle hour compared to others (impacted by multi-modal fleet)**	33.5 33.6 pg. 9/10
How well are transit vehicles used to move people?	Passenger Trips per In-Service Vehicle Hour (Efficiency)	**Decrease** **Number of transit trips per in-service vehicle hour (utilization) decreased**	**N/A**	33.8 pg. 11
What does it cost to provide one passenger trip?	Operating Cost for Conventional Transit per Regular Service Passenger Trip (Efficiency)	**Stable** **Operating cost to provide a passenger trip was stable**	**1** **Lower operating cost to provide a passenger trip compared to others**	33.7 33.9 pg. 11/12

Question	Indicator/Measure	Internal Comparison of Toronto's 2016 vs. 2015 Results		External Comparison to Other Municipalities (MBNC) By Quartile for 2016		Chart & Page Ref.
What does it cost to provide one passenger trip?	Total Cost for Conventional Transit per Regular Service Passenger Trip (Efficiency)	**Increase** **Total cost to provide a passenger trip increased**		**N/A**		33.7 pg. 11
Overall Results		**Service Level Indicators (Resources)** 1- Increase 0- Stable 0-Decrease 100% increased or stable	**Performance Measures (Results)** 2- Favourable 3- Stable 1 -Unfavourable 83.3% favourable or stable	**Service Level Indicators (Resources)** 1- 1st quartile 0- 2nd quartile 0- 3rd quartile 0- 4th quartile 100% in 1st and 2nd quartiles	**Performance Measures (Results)** 2- 1st quartile 0- 2nd quartile 1- 3rd quartile 1- 4th quartile 50% in 1st and 2nd quartiles	

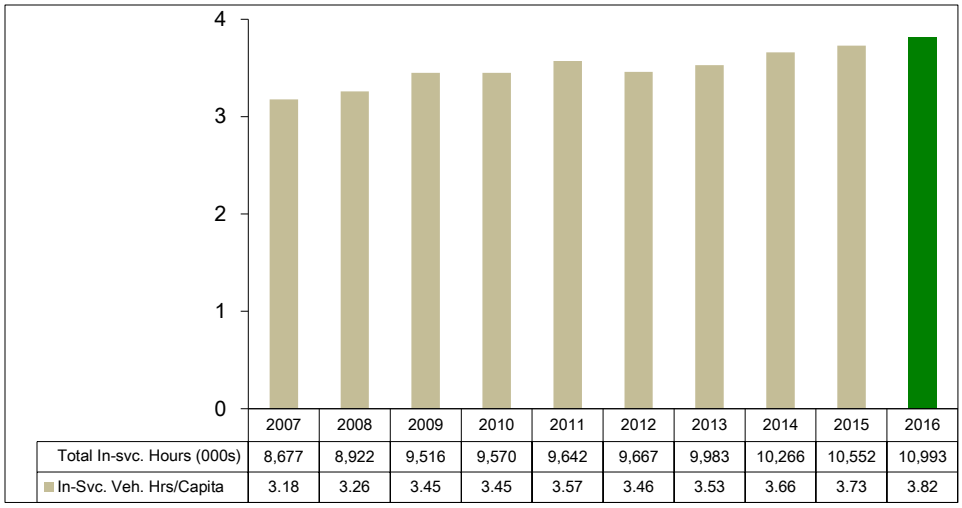
For an explanation of how to interpret this summary and the supporting charts, please see the Guide to Toronto's Performance Results. These quartile results are based on a maximum sample size of 12 municipalities.

SERVICE/ACTIVITY LEVELS

The number of in service transit vehicle hours available in a year for residents to use provides an indication of service levels. It can also influence how often residents use public transit.

An in-service vehicle hour refers to any hour a transit vehicle accepts paying passengers. It does not include other activities such as school contracts, charters and cross-boundary service, or vehicle hours devoted to road tests or maintenance activities.

33.1 - HOW MANY VEHICLE HOURS OF TRANSIT SERVICE ARE PROVIDED IN TORONTO?



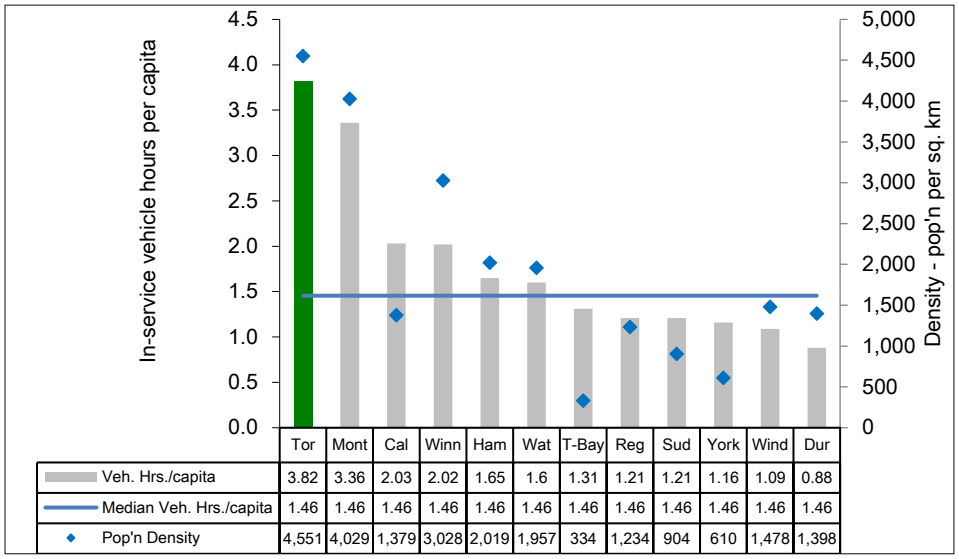
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total In-svc. Hours (000s)	8,677	8,922	9,516	9,570	9,642	9,667	9,983	10,266	10,552	10,993
In-Svc. Veh. Hrs/Capita	3.18	3.26	3.45	3.45	3.57	3.46	3.53	3.66	3.73	3.82

Chart 33.1 provides Toronto's total number and rate of in-service vehicle hours per capita. The results for 2010 and prior years are not based on the revised population estimates.

Chart 33.1 (City of Toronto) In-Service (Revenue) Transit Vehicle Hours per Capita

Over the past decade, Toronto's total in-service transit vehicle hours has grown each year, as has Toronto's population. In 2016 total in-service vehicle hours increased by 4.2 %, and by 2.4% percent on a per capita basis.

33.2 - HOW DO TORONTO'S IN- SERVICE TRANSIT VEHICLE HOURS COMPARE TO OTHER MUNICIPALITIES?



	Tor	Mont	Cal	Winn	Ham	Wat	T-Bay	Reg	Sud	York	Wind	Dur
Veh. Hrs./capita	3.82	3.36	2.03	2.02	1.65	1.6	1.31	1.21	1.21	1.16	1.09	0.88
Median Veh. Hrs./capita	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46
Pop'n Density	4,551	4,029	1,379	3,028	2,019	1,957	334	1,234	904	610	1,478	1,398

Chart 33.2 compares Toronto's 2016 in-service transit vehicle hours per capita with other Ontario municipalities, shown as bars relative to the left axis.

Chart 33.2 (MBNC 2016) In-Service (Revenue) Transit Vehicle Hours per Capita & Population Density

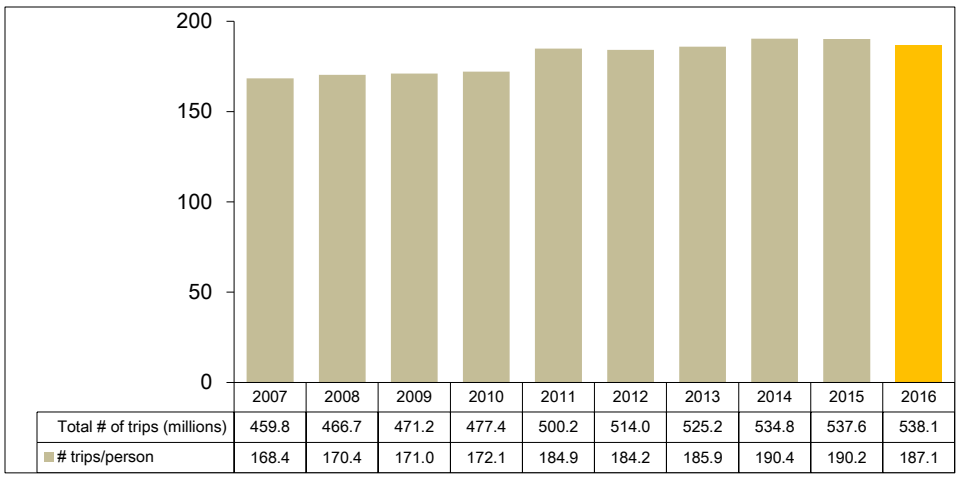
Toronto ranks first of twelve municipalities (first quartile), with the highest number of transit vehicle hours per capita. As service levels are primarily set based on observed ridership, the number of trips taken per capita is the largest determinant of the number of in-service hours per capita required to carry passengers (see Chart 33.4 below).

Population density (persons per square kilometre) can have a large impact on the number of passengers attracted to the service and therefore the need for, and extent of, transit systems. Population density is plotted as a scattered plot graph relative to the right axis in Chart 33.2. Toronto's density is related to the extent of its transit system, with approximately 96 percent of Toronto residents living within 400 metres of at least one stop of the TTC's multi-modal services.

COMMUNITY IMPACT

One of the primary goals of a transit system is to maximize use by residents.

33.3 –HOW MANY PASSENGER TRIPS PER PERSON ARE TAKEN IN A YEAR IN TORONTO?



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total # of trips (millions)	459.8	466.7	471.2	477.4	500.2	514.0	525.2	534.8	537.6	538.1
# trips/person	168.4	170.4	171.0	172.1	184.9	184.2	185.9	190.4	190.2	187.1

Chart 33.3 provides a summary of the total number and rate of transit trips taken in Toronto per person, which has grown on a per capita basis since 2007, in part as a result of the Ridership Growth Strategy.

Chart 33.3 (City of Toronto) Number of Transit Passenger Trips per Person

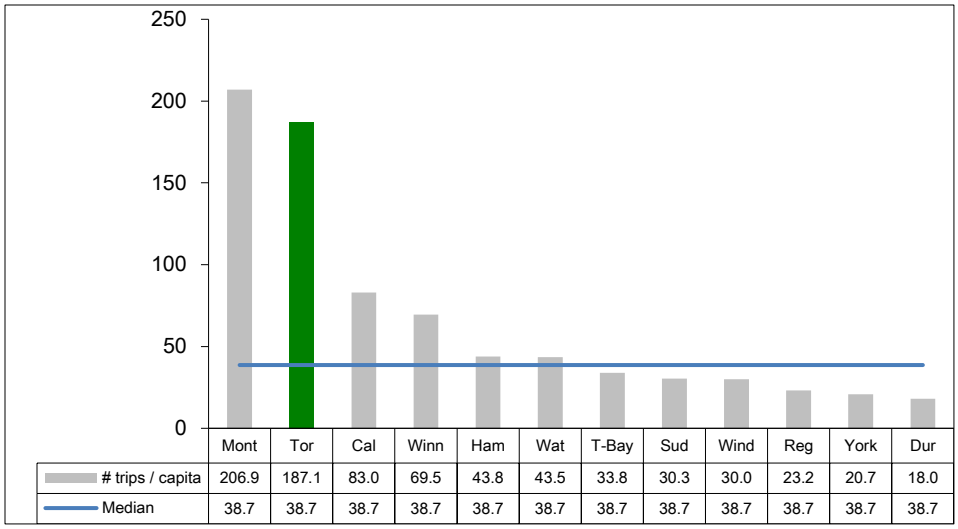
In 2016, the numbers of trips per person was relatively stable with a slight increase compared to 2015.

Toronto's population over this period has grown at an annual rate of approximately 1 percent. It should also be noted that this measure reports on the Total Regular Service Passenger Trips per Capita based on the definition of the Canadian Urban Transit Association (CUTA).

Highlights of the changes in ridership over the past ten years are:

- 2005-2007 – Ridership grew each year by more than 3 percent.
- 2008 – Increase of +1.5 percent due to increased sales of monthly passes (federal income tax credit) and rising automobile vehicle fuel prices.
- 2009 – total ridership increased due to increases in the system capacity from the Ridership Growth Strategy
- 2011 – ridership grew to over 500 million
- 2014 – total ridership grew by 1.8% to over 534 million trips
- 2016- total ridership grew to over 538 million trips

33.4 - HOW DOES TORONTO'S ANNUAL TRANSIT USE PER PERSON COMPARE TO OTHER MUNICIPALITIES?



	Mont	Tor	Cal	Winn	Ham	Wat	T-Bay	Sud	Wind	Reg	York	Dur
# trips / capita	206.9	187.1	83.0	69.5	43.8	43.5	33.8	30.3	30.0	23.2	20.7	18.0
Median	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7

Chart 33.4 compares the number of public transit passenger trips in Toronto in 2016 to other municipalities.

Chart 33.4 (MBNC 2016) Number of Conventional Transit Passenger Trips per Person

Toronto ranked second of twelve (first quartile) for the highest transit usage per capita. Toronto's high population density and extensive multi-modal transit system are the primary factors behind high transit use by Toronto residents in relation to other municipalities. A comprehensive list of all active transit stops on the TTC is provided by route on the TTC's web site at: http://www.ttc.ca/.

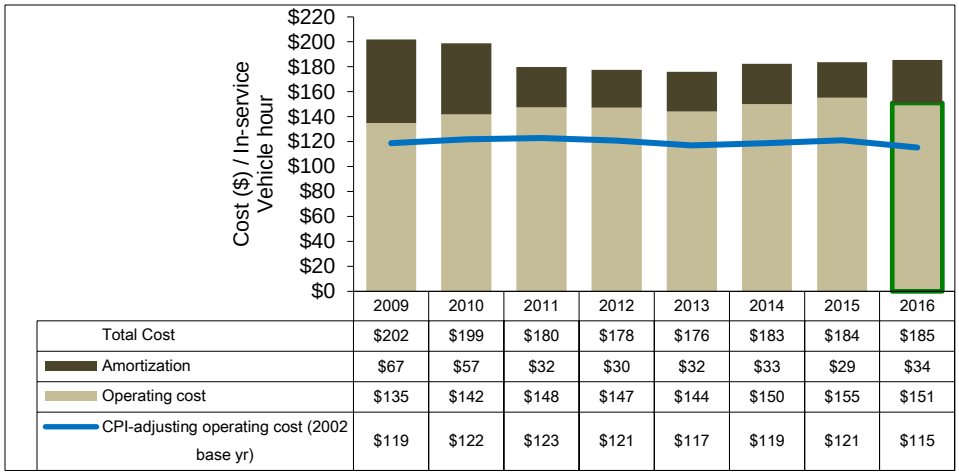
EFFICIENCY

In terms of efficiency, it is important to examine two aspects of service delivery:

- The cost per hour to make a transit vehicle available (in-service) in order to accept passengers.
- The cost to provide a passenger trip, which takes into consideration actual use of the available transit supply.

The second aspect of efficiency is from the utilization perspective, where the transit cost to provide a passenger trip is considered. This indicator should not be confused with the cost of purchasing a transit ticket.

33.5 - WHAT DOES IT COST IN TORONTO TO OPERATE A TRANSIT VEHICLE FOR AN HOUR?



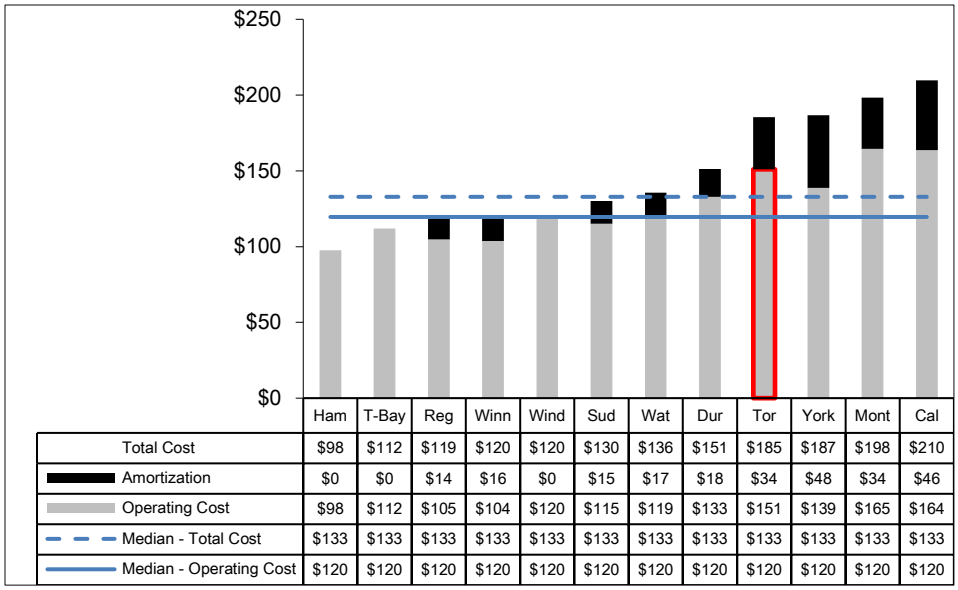
	2009	2010	2011	2012	2013	2014	2015	2016
Total Cost	$202	$199	$180	$178	$176	$183	$184	$185
Amortization	$67	$57	$32	$30	$32	$33	$29	$34
Operating cost	$135	$142	$148	$147	$144	$150	$155	$151
CPI-adjusting operating cost (2002 base yr)	$119	$122	$123	$121	$117	$119	$121	$115

Chart 33.5 (City of Toronto) Operating and Total Costs for Conventional Transit per In-Service Vehicle Hour

Chart 33.5 provides Toronto's operating cost and total cost (operating cost plus amortization but excludes interest) per in-service vehicle hour, and shows that operating cost slightly decreased and total cost remained relatively stable compared to 2015.

To reflect the impact of inflation, Chart 33.5 also provides Consumer Price Index (CPI) adjusted operating costs, which are plotted as a line graph. This adjustment discounts the actual operating cost result for each year by the change in Toronto's CPI since the base year of 2002.

33.6 –HOW DOES TORONTO'S TRANSIT COST PER VEHICLE HOUR COMPARE TO OTHER MUNICIPALITIES?



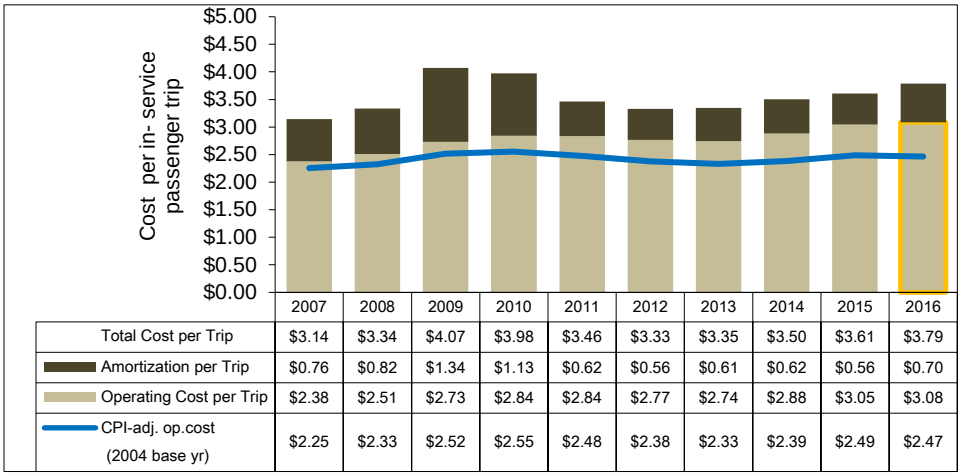
	Ham	T-Bay	Reg	Winn	Wind	Sud	Wat	Dur	Tor	York	Mont	Cal
Total Cost	$98	$112	$119	$120	$120	$130	$136	$151	$185	$187	$198	$210
Amortization	$0	$0	$14	$16	$0	$15	$17	$18	$34	$48	$34	$46
Operating Cost	$98	$112	$105	$104	$120	$115	$119	$133	$151	$139	$165	$164
Median - Total Cost	$133	$133	$133	$133	$133	$133	$133	$133	$133	$133	$133	$133
Median - Operating Cost	$120	$120	$120	$120	$120	$120	$120	$120	$120	$120	$120	$120

Chart 33.6 compares Toronto's 2016 result to other municipalities for both the operating and total cost per in-service vehicle hour.

Chart 33.6 (MBNC 2016) Operating and Total Costs for Conventional Transit per In-Service Vehicle Hour

Toronto ranks ninth of twelve municipalities (third quartile) in terms of lowest total cost per in service vehicle hour. Toronto ranks tenth of twelve municipalities (fourth quartile) in terms of lowest operating cost per in service vehicle hour. Toronto's costs are high among MBNC municipalities due to a number of factors that are unique to Toronto, such as the use of many modes of transit (subway, streetcars and light rapid transit) that are more expensive to operate on an hourly basis than buses.

33.7 –WHAT DOES IT COST TO PROVIDE ONE PASSENGER TRIP IN TORONTO?



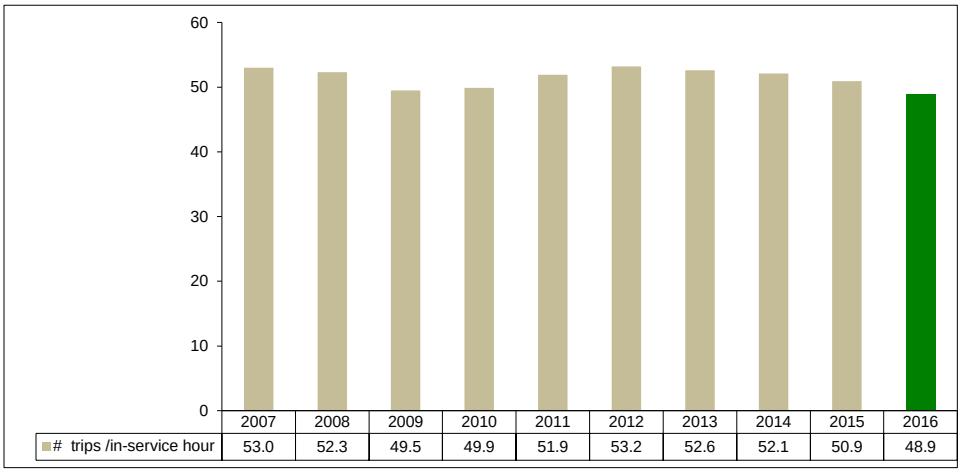
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Cost per Trip	$3.14	$3.34	$4.07	$3.98	$3.46	$3.33	$3.35	$3.50	$3.61	$3.79
Amortization per Trip	$0.76	$0.82	$1.34	$1.13	$0.62	$0.56	$0.61	$0.62	$0.56	$0.70
Operating Cost per Trip	$2.38	$2.51	$2.73	$2.84	$2.84	$2.77	$2.74	$2.88	$3.05	$3.08
CPI-adj. op.cost (2004 base yr)	$2.25	$2.33	$2.52	$2.55	$2.48	$2.38	$2.33	$2.39	$2.49	$2.47

Chart 33.7(City of Toronto) Operating and Total Cost for Conventional Transit per Regular Service Trip

Chart 33.7 illustrates Toronto's transit operating cost and total cost (operating cost plus amortization, but excludes interest) per passenger trip.

In 2016, total cost per trip increased by 5% to $3.79 per trip. The operating cost per trip was relatively stable with a slight increase in 2016.To reflect the impact of inflation, Chart 33.7 also provides Consumer Price Index (CPI) adjusted results for operating costs, using 2004 as the base year.

33.8 – HOW WELL ARE TRANSIT VEHICLES BEING UTILIZED TO MOVE PEOPLE?



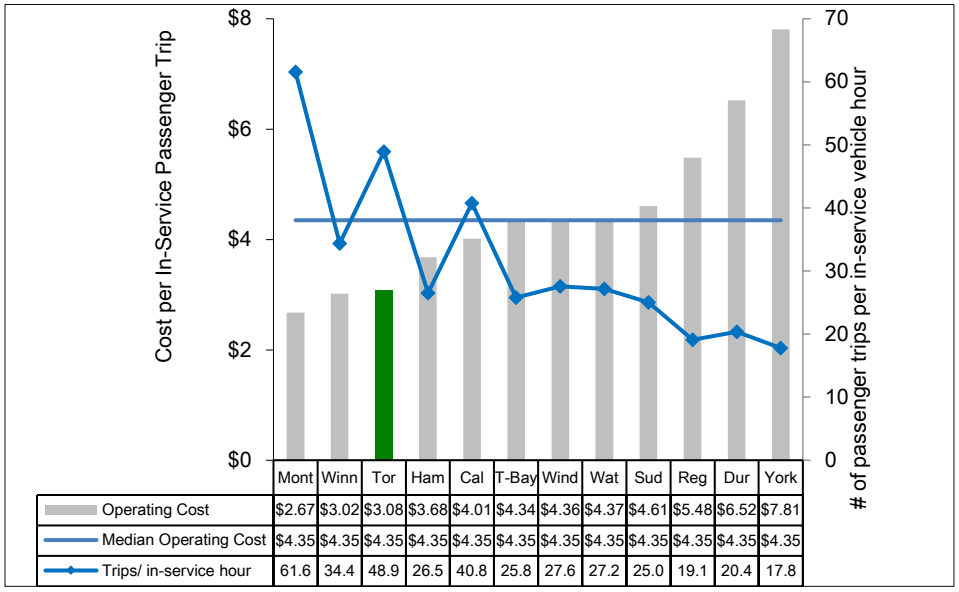
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
# trips /in-service hour	53.0	52.3	49.5	49.9	51.9	53.2	52.6	52.1	50.9	48.9

Chart 33.8(City of Toronto) Passenger Trips per In-Service Vehicle Hour

Chart 33.8 provides this utilization data for Toronto expressed as the number of passenger trips per vehicle hour.

In 2016, Toronto's utilization of transit vehicles reduced slightly to 48.9 trips per service. The degree of passenger utilization of transit vehicles is a primary factor in the cost per passenger trip, as higher usage rates allow fixed and variable costs to be spread over a larger number of riders.

33.9 – HOW DO TORONTO'S TRANSIT COST PER PASSENGER TRIP COMPARE TO OTHER MUNICIPALITIES?



	Mont	Winn	Tor	Ham	Cal	T-Bay	Wind	Wat	Sud	Reg	Dur	York
Operating Cost	$2.67	$3.02	$3.08	$3.68	$4.01	$4.34	$4.36	$4.37	$4.61	$5.48	$6.52	$7.81
Median Operating Cost	$4.35	$4.35	$4.35	$4.35	$4.35	$4.35	$4.35	$4.35	$4.35	$4.35	$4.35	$4.35
Trips/ in-service hour	61.6	34.4	48.9	26.5	40.8	25.8	27.6	27.2	25.0	19.1	20.4	17.8

Chart 33.9 displays the operating cost per transit trip, and the average number of passenger trips per hour that a transit vehicle is in service on the line graph relative to the right axis.

Chart 33.9 (MBNC 2016) Operating Cost of Conventional Transit per Passenger Trip and Average Number of Passenger Trips per In-Service Vehicle Hour

Toronto has the eleventh of twelve in highest utilization rate (quartile four), and ranks third of twelve municipalities (first quartile), in terms of lowest operating cost per passenger trip.

2016 ACHIEVEMENTS AND 2017 PLANNED INITIATIVES

The following initiatives have improved or are expected to further improve the efficiency and effectiveness of Transit Services:

2016 Initiatives Completed/Achievements

- PRESTO enabled system-wide
- Faregate installation ongoing
- WI-FI enablement ongoing
- LRVs rollout continues (expect 30 in revenue service by year-end)
- One Person Train Operation (OPTO) pilot on Line 4
- Overall customer satisfaction: a high of 80% in Q2 2016
- Customer perception of value for money: a high of 92% of telephone respondents received average, good or excellent value
- Start subway service on Sundays one hour earlier, at 8:00 a.m.
- Introduce five new express services to reduce crowding and provide faster bus service
- Introduce new streetcar service on Cherry Street to the West Donlands, to serve a growing new neighbourhood
- Install an external route announcements system on all streetcars, subway trains and buses

2017 Planned Initiatives

- Introduce Wheel-Trans Family of Services pilot
- Launch Anti-harassment campaign
- Launch Safety and Security app
- Install time-saving signal priority technology at 15 intersections
- All entrances at 43 subway stations will have new PRESTO-enabled fare gates
- Install new high-capacity bike parking racks at 25 subway stations
- Open the Line 1 Toronto-York Spadina Subway Extension
- 300+ new buses in service to replace aging buses
- Continue to bring elevators into service at various stations
- Wi-Fi available at 100% of stations

TTC Conventional Service:

- Provide transit service to an anticipated 544 million riders, representing an 8 million, or 1.6% decrease over the 2016 ridership "stretch target" of 553 million rides.
- Provide rail, streetcar and bus service spanning 247 million kilometers and 9.5 million hours of service.

Wheel-Trans Service:

- Carry 1.033 million more passengers, increasing from 3.690 million in 2016 to 4.7 million in 2017.

- Improve customer service telephone performance by reducing wait times and call abandonment rates to industry standards.
- The 2017 Operating Budget includes the impact of expanded service capability to include redefined eligibility in accordance with Accessibility for Ontarians with Disabilities Act (AODA) legislation and business/technology changes required to meet future needs and transform the customer experience.

Factors Influencing the Results of Municipalities

The results of each municipality included in this report can be influenced to varying degrees by factors such as:

- Size and population density of the service area.
- Socio-economic factors such as income levels, population age, energy prices, etc. which impact transit usage.
- Transit policies such as fare levels, parking rates, park and ride, etc.
- Service design and delivery (e.g., diversity and the number of routes, frequency of service, hours of service, fare structures, etc.).
- Composition of the fleet and the different modes of transit.
- The number of transit trips taken by non-residents, since these results are based on the total number of passenger trips in the municipality (by residents and non-residents) divided by the municipality's population.