



COVID-19 Response and Recovery Update

Date: May 12, 2021
To: TTC Board
From: Chief Executive Officer

Summary

The TTC has provided several reports to the Board outlining the health and safety measures taken to safeguard customers and employees, changes in transit demand, transit demand forecasts, 2021 service plan, customer experience through COVID-19 and the financial outlook for both conventional transit and Wheel-Trans. The purpose of this report is to provide the TTC Board with an update on the TTC's ongoing COVID-19 Response and Recovery activities.

As of May 1, 2021, Ontario is under a Stay-at-Home Order. Ontarians should only go out for necessities, such as the grocery store, pharmacy, health care services (including medical appointments or getting vaccinated), outdoor exercise or walking pets, work that cannot be done remotely, or child care or school (elementary and secondary schools are currently closed to in-person learning). As of the week of April 26, revenue ridership is 26% of normal pre-pandemic levels.

In response to the COVID-19 pandemic, the TTC continues to assess ridership demand, implement health and safety measures, and advance key policy initiatives as outlined in the 2018-2022 Corporate Plan. There are four key areas in this report:

- **COVID-19 Effects on Ridership** – this provides the current and projected ridership to year end on conventional and Wheel-Trans services.
- **TTC's COVID-19 Response** – this provides an update on health and safety measures being undertaken, including helping residents as they travel to and from their vaccination appointment.
- **Towards Recovery** – this provides an update of the key policy initiatives that advance the Corporate Plan and are also outlined in the Phase 2 Safe Restart Agreement (SRA).
- **Financial Update** – this provides an update on the incurred and anticipated financial impacts of COVID-19 to the end of 2021, including the \$1.3 billion in available relief funding and the remaining \$126-million estimated funding gap. TTC staff continue to work with our funding partners to address the remaining funding gap.

The TTC acknowledges the great benefits of the funding that has been provided by our federal, provincial and municipal partners. The COVID-19 pandemic has presented many

challenges and we continue to respond by working with Toronto Public Health leaders to continuously assess levels of service to ensure we meet the highest level of safety for our customers and employees.

Recommendations

It is recommended that the TTC Board:

1. Request the provincial and federal governments to continue providing ongoing operating funding support for public transit to address the impact of COVID-19.
2. Request that staff forward this report to the Ministry of Transportation for information.

Financial Summary

The financial impact of COVID-19 has, to date, been primarily offset by financial support received from our Federal and Provincial partners through the Safe Restart Agreement (SRA) and the Municipal Transit Enhanced Cleaning program (MTEC). In all, including the most recent March 3, 2021 Provincial announcement, \$1.312 billion in funding has been made available to the TTC to offset operating shortfalls due to the financial impacts of COVID-19 in 2020 and 2021. Total available SRA funding is \$74.5 million below the \$1.386 billion funding requirement based on 2020 final results and the planned impact included in the 2021 Operating Budget.

Program	Time Period	(\$M)
Available Funding		
MTEC	Apr 2020 - Dec 2020	\$7.4
SRA – Phase 1	Apr 2020 - Sept 2020	\$437.4
SRA – Phase 2	Oct 2020 – Mar 2021	\$472.1
SRA – Phase 3	Apr 2021 - Dec 2021	\$395.2
Total Available Funding		\$1,312.1
Funding Required		
2020 City Funding Shortfall		\$590.2
2021 Budgeted COVID-19 Impact		\$796.4
Total Funding Required		\$1,386.2
Funding Shortfall, Based on 2021 Budget		\$74.5+*

* Additional funding required may increase due to the factors noted below.

While the TTC's 2021 budgeted funding gap has been reduced to \$74.5 million based on COVID-19 impacts anticipated in the 2021 Operating Budget, there are two factors likely to increase this shortfall.

- a) **SRA Funding:** Phase 2 funding is available for eligible financial impacts until March 31, 2021. Based on current expenditures, the TTC will be unable to claim

approximately \$31.8 million in funding under Phase 2 of the program. This results in increasing the total funding gap to \$106.3 million. The TTC and the City have engaged the Province of Ontario to request the roll-over of Phase 2 funding, as one approach to support the ongoing fiscal impacts of COVID-19 on the TTC and public transit in general.

- b) **2021 COVID-19 Budget Impact:** As discussed later in this report, the 2021 COVID-19 financial impact may exceed the amount reflected in the 2021 Operating Budget by approximately \$20 million by year-end. This potential shortfall is driven by passenger revenue results that are projected to trend a \$70 million unfavourable variance by year-end due to the implementation of Stay-at-Home Orders. This underachievement of passenger fare revenue will be mitigated by projected under-expenditures of \$50 million by year-end.

By taking into account the SRA funding risk to the end of 2021, estimated at \$106.3 million, with the additional \$20 million COVID-19 budget impact based on current revenue and expenditure trends, the potential shortfall to year-end is projected to be \$126.3 million, as summarized in the following table.

2021 Estimated Funding Shortfall (\$M)	
SRA Funding Shortfall: Available Funding vs 2021 Budgeted COVID-19 Impacts	\$74.5
Add: Unused Phase 2 funding	\$31.8
Subtotal: SRA Funding Shortfall, including unused Phase 2 funding	\$106.3
2021 Budget Impact, net of under-expenditures	\$20.0
Total Estimated Finding Shortfall	\$126.3

TTC staff continue to both effectively manage non-COVID-19 expenditures and work with City, Provincial and Federal counterparts to ensure net-COVID-19 financial impacts are fully addressed. Staff will continue to update the Board as further developments occur and noted risks are mitigated or resolved.

Equity/Accessibility Matters

The TTC strongly believes that all customers should enjoy the freedom, independence and flexibility to travel anywhere on its transit system. The TTC is currently working towards making Toronto's transit system barrier-free by implementing changes, which will make all of its services and facilities more accessible.

The TTC continues to work with the Advisory Committee on Accessible Transit (ACAT) to ensure that customers with disabilities and seniors can be accommodated on the TTC's transit system. The TTC will bring all projects that impact the accessibility of TTC's transit

service and facilities to ACAT or to one of the ACAT subcommittees for consultation. This includes, but not limited to: vehicle design (during the procurement of new vehicles), Five-Year Service Plans, Annual Service Plans, and the plans for the automated vehicle shuttle pilot, integrating Microtransit service, fare integration and service integration.

The TTC is also committed to supporting residents as they travel to their vaccination appointments by adding additional wayfinding measures, accepting transit vouchers and prioritizing Wheel-Trans applications.

Decision History

On May 13, 2020, the TTC Board approved the Preliminary COVID-19 Financial Impacts for the TTC. This report outlines the preliminary impact of the COVID-19 pandemic on the TTC.

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2020/May 13/Reports/5 Preliminary COVID 19 Financial Impacts for the TTC.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2020/May%2013/Reports/5%20Preliminary%20COVID%2019%20Financial%20Impacts%20for%20the%20TTC.pdf)

On June 14, 2020, the TTC Board approved the COVID-19 – Transitioning from Response to Restart and Recovery report. This report outlines how the TTC is responding to the COVID-19 pandemic.

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2020/June 17/Reports/4 COVID 19 Transitioning from Response to Restart and Recovery.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2020/June%2017/Reports/4%20COVID%2019%20Transitioning%20from%20Response%20to%20Restart%20and%20Recovery.pdf)

On September 24, 2020, the TTC Board approved the COVID-19: Restart and Recovery Update. This report provided an update on the impact of COVID-19, and how the TTC continued to respond to the pandemic.

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2020/September 24/Reports/5 COVID 19 Restart and Recovery Update.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2020/September%2024/Reports/5%20COVID%2019%20Restart%20and%20Recovery%20Update.pdf)

On September 30, 2020, City Council adopted the COVID-19 Financial Update. This report provided a financial update on the impact of COVID-19, results of implemented mitigation strategies, details on the City's allocation of initial Safe Restart Agreement funding and the requirements for Phase 2 Safe Restart funding.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.CC24.2>

On December 21, 2020, the TTC Board approved the 2021 TTC and Wheel-Trans Operating Budgets. This report discussed the funding received through the Safe Restart Agreement.

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2020/Dec 21/Reports/1 2021 TTC and WheelTrans Operating Budgets.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2020/Dec%2021/Reports/1%202021%20TTC%20and%20WheelTrans%20Operating%20Budgets.pdf)

Issue Background

On March 11, 2020, the World Health Organization (WHO) declared COVID-19 a global pandemic. By March 17, the Province of Ontario declared a state of emergency, followed by the City of Toronto declaring a state of emergency on March 23. All non-essential work places were ordered closed and gatherings restricted.

The TTC, as an essential service, has continued to operate throughout the pandemic to serve customers making essential trips to work, shopping, medical appointments and family support visits. Near the early stages of the pandemic, monthly ridership had fallen to 14% of the April 2020 monthly budget, reaching a weekly low in April 2020 of 12% of budget.

In July 2020, as part of the Federal-Provincial Safe Restart Agreement, the Ontario Government announced up to \$2 billion for Ontario's municipalities to address transit pressures from the COVID-19 pandemic. This agreement outlined a two-phased approach to funding Ontario's transit financial pressures. A third phase of this agreement was announced in March 2021 adding an additional \$150 million to support transit financial pressures across Ontario transit systems.

Public transit is a critically important service in our city, with the TTC moving an average pre-pandemic daily ridership of up to 1.8 million to work, school, leisure and other activities driving Toronto and the region's economy. The TTC will continue to play an important role, providing service to essential workers throughout the pandemic and providing sustainable transportation options to help the City's pandemic recovery.

Comments

The TTC's leadership in the COVID-19 response has ensured levels of service remain constant so that the needs of our customers and the public are fully supported. Our response to the COVID-19 pandemic can be seen in the following four key areas of this report: COVID-19 Effects on Ridership, TTC's COVID-19 Response, Towards Recovery, and a Financial Update.

1. COVID-19 Effects on Ridership

There are multiple factors that will influence the TTC's ridership recovery, with the return to the office likely having the largest impact on the TTC's ridership.

TTC Conventional Customer Use Ridership

Customer use as measured by weekday average boardings for the week ending April 24 is provided in Table 1 below. Buses remain the busiest mode with 502,000 boardings, which is 36% of pre-COVID-19 levels, while the subway has maintained the largest decrease from pre-COVID-19 levels with 19%. It is expected that this pattern will generally hold until COVID-19 restrictions are substantially lifted, and downtown office work, in particular, returns.

Table 1: Weekday Average Boardings for the Week Ending April 24

Customer Boardings/Day	Week ending April 16	Pre-COVID-19	% pre COVID-19
Bus	502,000	1,381,000	36%
Streetcar	81,000	350,000	23%
Subway	286,000	1,492,000	19%
Total	869,000	3,223,000	27%

The waterfall graph in Figure 1 below illustrates the key drivers¹ to transit demand. This graph also illustrates the estimated decrease in demand associated with changes in each driver as of November 2020 (which is the most stable period just prior to recent sets of Stay-at-Home Orders).

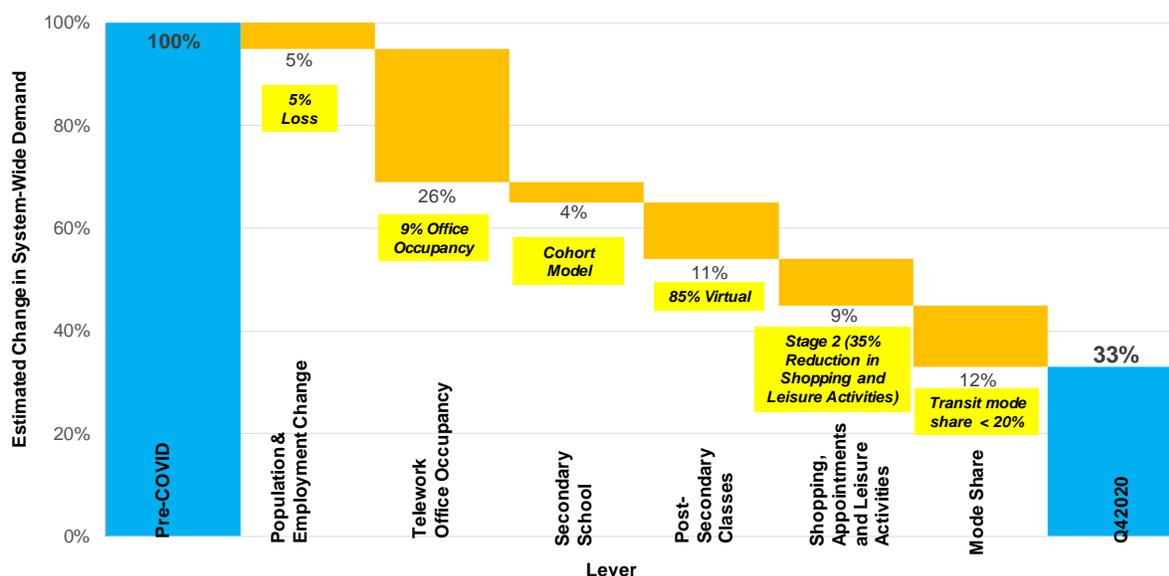


Figure 1: Estimated Change in System-Wide Demand due to COVID-19 Impacts and Restrictions

The largest impact to transit demand is that nearly all office workers are working from home, which we estimate accounts for a loss of 26% of pre-COVID-19 demand. This lever will have the biggest impact on demand recovery. There is an expectation that there will be a “return to office” once it is deemed safe to do so. However, based on insights gathered from Statistics Canada’s Canadian Survey of Business Conditions, it is expected that many employers will offer increased flexibility with respect to working from home, which will have some long-term effect on transit demand. Once office workers return to work, there will be a significant uptake in subway demand.

The second largest change is with respect to the loss of transit’s modal share. According to the 2016 Transportation Tomorrow Survey, 27% of all pre-COVID trips made by city of Toronto residents were conducted on the TTC. While travel has decreased across the city for all modes, it is estimated that current transit mode share is between 15-20%. It is believed that some customers have reverted to driving, walking or cycling during the pandemic possibly due to concerns about safety or that the other modes are more conducive to their current travel needs. This has reduced system-wide demand by approximately 12%.

Forecasting initiatives continue to monitor all available data sources to help inform projections for post COVID-19 ridership recovery.

TTC Wheel-Trans Customer Use Ridership

In June 2020, ridership was at 20% of budgeted levels and gradually increased to 35% in September, which equates to approximately 147,000 passengers per month. For the remainder of the year, ridership started to decrease as more restrictions were put in place in November and as the Provincial lockdown was initiated as of December 26, bringing ridership levels down to 30% of normal pre-pandemic levels.

The graph below (Figure 2) compares 2021 actual and projected ridership to the 2021 budget, as well as 2020 pre-COVID-19 budget to illustrate the true impact of ridership decrease since the onset of the pandemic and provincial lockdown measures that followed. However, given the vaccine rollout and the anticipated recovery, it is estimated that Wheel-Trans ridership will increase to 55% of pre-COVID-19 levels by the end of the year.

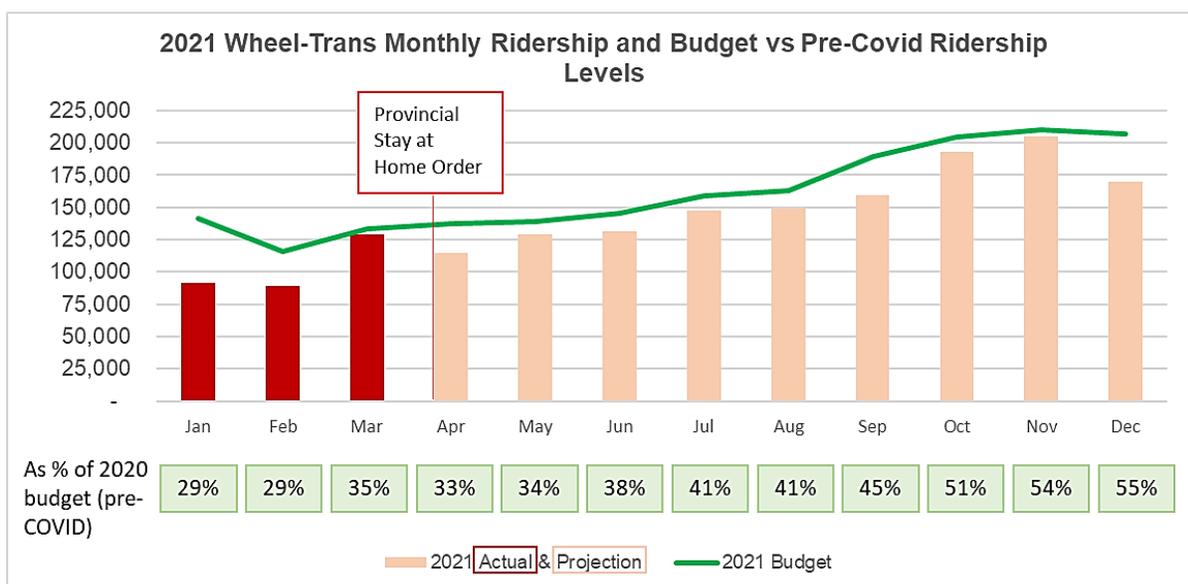


Figure 2: 2021 Wheel-Trans Monthly Ridership and Budget vs Pre-COVID-19 Ridership Levels

Note: Figure 2 shows a projection of April ridership as actual data was not yet available at the time of publishing this report.

In consideration of ridership levels, Wheel-Trans Reservations call volumes continue to trend at approximately 1,000 calls per day, which is below the pre-COVID-19 call volumes of approximately 3,200 calls per day in 2019.

2. TTC's COVID-19 Response

a. Health and Safety

The TTC has implemented various health and safety measures throughout the pandemic, and will continue to do so in accordance with public health guidance.

The TTC continues to follow the guidance of the City of Toronto's Medical Officer of Health and regularly engages with Toronto Public Health to ensure timely communications and implementation of new or revised requirements. The TTC has developed a Pandemic and Infectious Disease Emergency Response Plan that outlines the response processes, governance and key responsibilities as well as accountabilities throughout the organization. A corresponding Pandemic and Infectious Disease Health and Safety Plan has also been developed that provides the approach to implementing health and safety control measures.

The TTC continues to work with Hatch LTK (formerly LTK Engineering) to identify and investigate mitigation measures for COVID-19 that may be applied to transit vehicles. To assist with this investigation, Hatch LTK performed both a market scan and outreach to the TTC's peer agencies to evaluate new technologies available for application on the bus, subway, streetcar and Wheel-Trans fleets. In addition, Hatch LTK, performed air flow studies on each mode to better understand the air movement under various vehicle and heating, ventilation, and air conditioning (HVAC) conditions and settings.

New technologies that have been reviewed, implemented or are currently being investigated as air and surface mitigation measures include:

Air Mitigation:

- HVAC Ultraviolet-C (UVC) Lighting
- HVAC Photocatalytic Oxidation
- Minimum Efficiency Reporting Value (MERV) Filter Upgrades

Surface Mitigation:

- Chemical Disinfecting
- Copper Coating Surface

For the purpose of in-service efficacy testing, Hatch LTK collected test samples from high-touch surfaces. In addition to results obtained from in-service testing, information on laboratory tests was gathered from the industry. Results indicate the efficacy of UVC lighting in HVAC systems is ineffective due to the exposure time required to eliminate the virus.

HVAC Photocatalytic Oxidation pilot testing is currently being finalized on the TTC's streetcar fleet. In-service efficacy test results and peer agency data from similar pilots are still pending for this technology.

As part of the TTC's efforts to mitigate airborne transmission, TTC staff have also commenced upgrades to the vehicle filter systems. The goal is to upgrade to MERV 13 filters, which are currently recommended by professional organizations, such as American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), for reducing airborne aerosol exposure to COVID-19. Typically, transit vehicles are designed to use

HVAC filters in the range of MERV 5 to MERV 8. Table 2, shown below, details the status of filter upgrades for each mode.

Table 2: Status of Filter Upgrades by Mode

Mode	Status of Filter Upgrades
Bus	98% has been upgraded to MERV 13
Streetcar	Scheduled to be upgraded to MERV 11 and testing is commencing to determine if MERV 13 can be applied
Subway	Is in process of being upgraded to MERV 9 and testing has commenced to move towards MERV 13
Wheel-Trans	Pilot testing to upgrade the Wheel-Trans bus fleet with a standalone filtration device that accommodates the vehicle's compact HVAC design, is ongoing and is targeted for completion in Q3 2021

With respect to surface disinfection, the TTC continues to follow guidelines established by the Province of Ontario and is disinfecting vehicles twice daily while evaluating other available surface treatments. As a pilot, the TTC has engaged a third party supplier to investigate the use of copper coating material as a means for surface treatment for COVID-19. Phase 1 testing has already been completed between this vendor and Vancouver's Translink agency. Phase 2 testing is scheduled to commence in July with the inclusion of TTC's subway fleet.

Customer Mask Use and Distribution

The TTC declared masks are mandatory on July 2, 2020, and initiated the Customer Mask Program to build awareness with customers and ensure there are no barriers to using transit with this policy.

Over 2.1 million masks have been distributed to customers to date along busy routes, in Wheel-Trans vehicles and in all stations, including 500,000 masks to community shelters and schools. Just over 900,000 masks remain in inventory for distribution throughout the rest of 2021. The TTC monitors mask use, taking on average 13,000 observations per week as customer board/disembark buses at random stations, and as they enter/depart subways. Mask adoption amongst customers has been consistently 97-99% since November 2020. Mask compliance (properly over mouth, nose and chin) has been 94-95% since February 2021, and less compliant locations are targets for subsequent mask distribution. In March 2021, the TTC has launched a media campaign for customers focused onboard vehicles and in stations reminding them about proper usage of masks.

b. Supporting Ontario's COVID-19 Vaccination Plan

The TTC is supporting residents as they travel to and from their vaccination appointment.

Vaccine Equity Transportation Plan

The TTC is working with the City to distribute 15,000 TTC ride vouchers through a network of partner community agencies across Toronto to provide to people who cannot afford transit fare, with no-cost rides to and from vaccination sites. To assist, the TTC is configuring and loading the PRESTO cards with two adult fares each, costs are covered by the City of Toronto. The PRESTO cards will then be distributed to eligible clients through the City and partnering community agencies.

In addition, Torontonians who are not Wheel-Trans customers, but qualify for Wheel-Trans service, and would like to arrange a trip to and from their vaccination appointment, have been invited to apply by calling Wheel-Trans Customer Service. These applicants may be eligible for Wheel-Trans service if their disability prevents them from using the TTC's conventional transit for all or part of their trip. These applications are being prioritized so service is granted in time for their vaccination appointment.

Supporting Vaccination Plan on Conventional Transit

The TTC has added additional supports to help residents access the mass vaccination clinics as they are expected to vaccinate a larger number of people. These supports include:

- In-vehicle stop announcements for stops serving a mass vaccination clinic (expected by end of May);
- In-station announcements for stations connecting to a mass vaccination clinic;
- Wayfinding at stations directing customers to the appropriate walking path or bus;
- Temporary express stop on 952 Lawrence West Express to serve the Toronto Congress Centre; and
- Temporary express stop on 925 Don Mills Express to serve the East York Town Centre.

Crowding is monitored on all routes with a focus on routes serving mass vaccination clinics. If overcrowding does arise, the TTC will deploy flexible demand-responsive buses to supplement scheduled service as needed.

c. Customer Use and Occupancy Analysis

Customer use and occupancy information allows the TTC to match service levels with demand and allows customers to plan their trip according to number of customers on board best suited to the customer's comfort level.

The TTC uses modern technologies to collect ridership information via Automatic Passenger Counting system (APC) on surface vehicles and weighting technology on the TTC's TR subway trains. In 2019, nearly 100% of the TTC's bus fleet was equipped with APC. At the onset of COVID-19, the APC reporting processes were modified to accelerate monitoring, reporting and analysis of customer use from a quarterly to a daily basis.

In April 2021, the TTC launched real-time bus occupancy information on two leading mobile transit apps, Rocketman and Transit, to help customers better plan their journeys. The apps display information based on data from Automatic Passenger Counting (APC) devices in real time. Customers using the apps are able to see the volume of passengers on buses approaching their stop — indicated by one, two or three icons — to help them choose which bus they are most comfortable boarding. Since the information was launched, Rocketman, Transit and our Customer Service Centre have received positive feedback. There were more than 400,000 unique uses of the apps in the first five days.

Train weight technology on TR cars (on Lines 1 and 4) have also been leveraged to report customer use, by time of day enabling next-day monitoring of customer use, and manage changing demand.

APC technology is being rolled out to 50% of streetcars over the next three years, and we are researching further technologies to support occupancy analysis across all modes and lines.

d. Bicycle Parking Infrastructure

Enabling more Torontonians to cycle safely around the city is a key part of the City's Restart and Recovery plan.

During the pandemic, the City expanded and accelerated its Cycling Network Plan as part of the ActiveTO program, with 40 kilometres of bike routes. In close alignment with the City's plans, the TTC is nearing the completion of a project aimed at modernizing and expanding bicycle parking infrastructure at stations to improve the integration of cycling and transit. With the project's completion this summer, we will have installed more than 700 new bicycle parking spaces at TTC stations, including seven shelters — increasing our parking supply by about 75%. Figure 3 depicts one of the new high-capacity bicycle racks installed at Pape Station. Our existing repair station network, which allows cyclist to make minor repairs to their bicycles on-the-go, will also be expanded from 29 to 54 stations.



Figure 3: Photo of High-Capacity Bicycle Rack at Pape Station

e. Customer Research

Since the outset of the pandemic, the TTC has developed and collaborated on several research initiatives to better understand changing customer perceptions, travel behaviour and how ridership may recover in the future.

Customer COVID-19 Research

The TTC worked closely with the University of Toronto on its COVID-19 Household Interrupted Travel Survey (COVHITS), a travel behaviour survey carried out in partnership with the Ministry of Transportation, City of Toronto and other regional municipalities in the GTA. This survey interviewed about 1,000 households per municipality in October 2020 on their travel behaviour before and during the pandemic. A second round of the survey is planned for fall 2021.

Since March 2020, the TTC has conducted five rounds of its COVID-19 Pandemic Response Survey. This survey is aimed at tracking customer attitudes and perceptions during the pandemic on topics ranging from transit safety measures to future travel plans as restrictions are lifted and vaccines are distributed. In addition, we continue to track satisfaction with our services and perceptions of safety and confidence in using the system through our quarterly Customer Satisfaction Survey.

Wheel-Trans Customer Behaviour and Feedback

Wheel-Trans customers have been surveyed on the COVID-19 Pandemic Response in mid-June 2020 and the beginning of November 2020:

- Significantly fewer customers **abstained** from using Wheel-Trans: 15% in June vs 8% in November;
- 68% of customers **reduced their usage** in June, compared to 62% in November, which is likely a reflection of the ongoing pandemic settling in and becoming a “new normal” in the near future
 - Travel for medical appointments increased by 8% based on November survey results;
- **Feeling of safety** had improved in November with 78% of customers feeling safe using Wheel-Trans compared to 62% in June;
- **Vaccine** availability and the **number of new cases** continue to be the key factors that impact customers’ feeling of safety; and
- Significant **increase in awareness** of TTC safety measures was evident in November survey results.

Prior to the pandemic (February 2020), Wheel-Trans customers made approximately seven monthly trips vs four monthly trips on average in June and October 2020. November survey results, shown in Figure 4 below, indicate the following trip reasons for customers still taking Wheel-Trans:

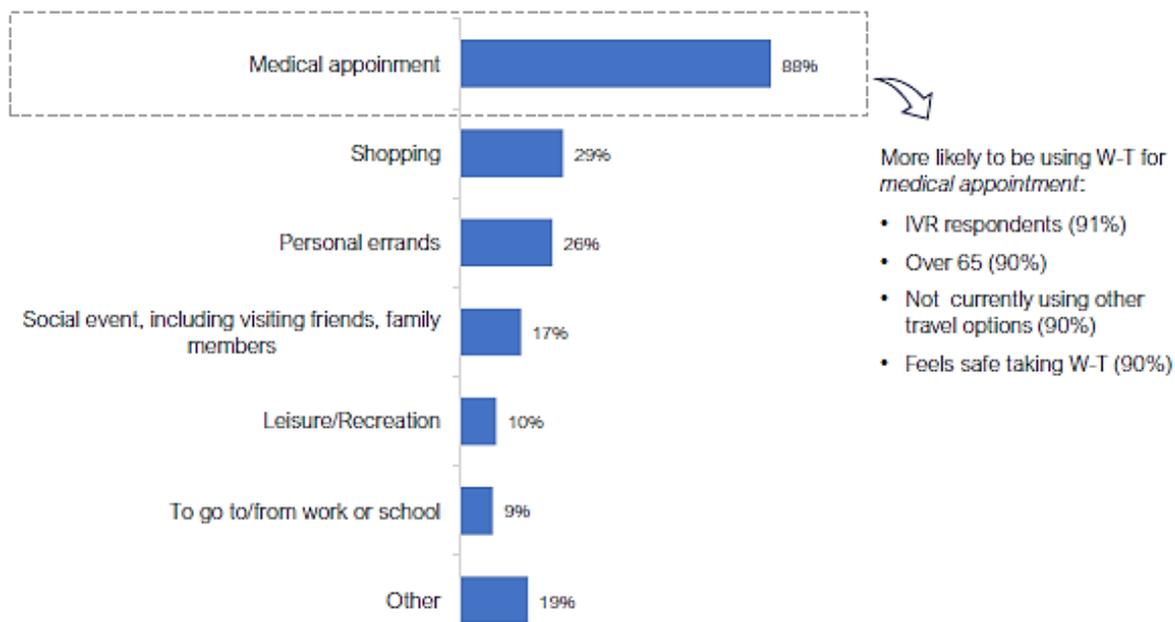


Figure 4: November 2020 Wheel-Trans Customer Survey Results

It is evident that ridership increase will be reflected through the successful vaccine roll-out, reduced case numbers, reopening of shopping, recreation and other social activities. Unlike the conventional TTC service, work commutes are not a significant proportion of trips.

3. Towards Recovery

Throughout the pandemic and as the organization prepares for recovery, the TTC has continued to implement initiatives under the TTC's 5 Year Corporate Plan that advance the key critical paths of fiscal sustainability and providing a safe and reliable service for customers. This includes, but is not limited to, assessing opportunities for consolidated procurement; implementing service innovations (i.e. Microtransit), advancing cross-boundary service integration; and engaging provincial and municipal partners on opportunities for fare integration. These key initiatives also align with current policy objectives of the provincial government identified as part of the Safe Restart Funding Program.

a. TTC Joint Procurement

The TTC continues to leverage municipal and provincial partnerships when procuring PPE as well as new vehicles.

The TTC has been proactively managing the supply of critical Personal Protective Equipment (PPE), and collaborates through the City of Toronto's Emergency Operations Centre with other City agencies. This allows the TTC to leverage the City's buying power and ensures that the TTC's inventory levels were reported to support other City divisions or agencies struggling with supply.

In addition to PPE procurement, the TTC entered into a Multi-Year Governance Agreement (in July 2016) established by Metrolinx enabling the TTC to join the Metrolinx's Transit Procurement Initiative (TPI). The TPI is one of North America's most innovative

transit procurement programs. The TPI has helped small, medium and large transit systems across the province save money through joint procurements.

Since joining, the TTC has used the TPI to procure 148, six-metre, low-floor Wheel-Trans mini-buses, with the last of these vehicles being planned for delivery by the end of Q1 2021. In addition, a pilot seven-metre, low-floor Wheel-Trans mini-bus has also been procured with the intention of ordering an additional 110 of these vehicles to be delivered by the end of 2022. The TTC will continue to use Metrolinx's TPI when feasible to procure its Wheel-Trans vehicles.

The TTC is also engaged with other peer transit agencies in the province, including Brampton Transit, Mississauga Transit, York Region Transit, and others through the Ontario Public Transit Association, on the first inter-agency co-operative procurement of eBuses. The aim of this collaboration is to develop a single zero-emissions bus procurement specification with the immediate benefit of reducing cost through economies of scale. The long-term benefit is through the optimization and standardization of customer experience, operations and maintenance throughout the GTHA and beyond.

b. Service Optimization

The TTC continuously monitors, analyzes and adjusts service levels to match capacity with demand.

The TTC performs frequent reviews of route performance in line with Board-approved service guidelines. The performance reviews are completed formally as part of the 5-Year Service Plan and the Annual Service Plan processes and informally "in-year" to respond to fluctuations in ridership.

The 2021 Annual Service Plan's focus is to continue to respond to customers' dynamic and evolving demand for public transit service. In 2021, a key priority is to improve regular scheduled service by reallocating and restructuring services. Of the 2021 Annual Service Plan's 22 initiatives, five initiatives advance this priority of service optimization. These initiatives include:

- Optimize capacity by rebalancing service levels;
- Improve route productivity and performance by modifying schedules;
- Implement service changes in Scarborough East;
- Restore most Express bus services; and
- Improve weekday schedules by reflecting actual operating conditions.

To date, the TTC has advanced each of these five initiatives with additional improvements planned throughout the year.

With respect to optimizing capacity, we have reallocated service on all modes based on demand. On bus services specifically, we are executing schedule changes in all periods of operation to optimize resources from low utilization (fewer than 25 customers i.e. <50% capacity) to high utilization services (more than 35 customers i.e. >70% capacity). For example, in May additional resources have been allocated to the 924 Victoria Park, 989 Weston, 165 Weston Rd North, 102 Markham Rd and 35 Jane routes. These resources, for example, have been reallocated from 34 Eglinton East, 32 Eglinton West, 63

Ossington, 106 Sentinel and 12 Kingston Rd routes. The optimization initiative focuses on matching capacity with demand to ensure utilization doesn't fall outside the bands noted above. As of May 2021, we are scheduling 95% of budgeted service system-wide (97% on bus, 95% on streetcar and 87% on subway).

Based on current demand forecasts, we estimate that ridership will exceed 50% of pre-pandemic levels in early 2022. As noted in previous Board reports, at 50% of pre-pandemic ridership, the TTC would increase service levels to 100%. As a result, service levels are expected to gradually increase starting in September and through the remainder of the year with 100% of service budgeted for January 2022.

c. Microtransit

The TTC has been investigating Microtransit opportunities since 2016 as a means to increase mobility options and improve system performance. A recent assessment of Microtransit in the city found the best opportunities would be focusing on automation and facilitating private shuttle operators that complement the regular service network.

Microtransit service is a demand-responsive service that picks up and transports the customer(s) to a destination along either a fixed or flexible route often using passenger vans or small buses. The type of Microtransit service can vary depending on the service attributes (type of vehicle, purpose of service, origin/destination, service area and fixed or flexible routing). Municipalities, such as Innisfil, Oakville and York Region, are using Microtransit as part of their public transit service.

In response to the change in ridership due to the pandemic, TTC staff reassessed Microtransit opportunities using August 2020 ridership and service-hour information. All routes were assessed against Microtransit criteria as well as any planned changes in the 2021 Annual Service Plan, and the potential for ridership to overwhelm Microtransit during Toronto's recovery from COVID-19. The assessment revealed that there were no opportunities for Microtransit to replace low performing TTC routes.

While the COVID-19 pandemic has lowered demand for transit, it also created the need for public health social distancing protocols (less customers per vehicle). Once the demand triggers the same number of vehicles than the fixed-route service, the savings are lost and it is more cost effective to run a fixed-route service.

In 2019, the TTC Board approved the TTC's 5-Year Service Plan 2020-2024, which included a plan to support Microtransit in the city of Toronto. While the efficiency of TTC routes in 2019 did not allow for the wholesale use of Microtransit, the TTC welcomes the use where it can provide innovative and integrated options for our passengers. The 5-Year Service Plan includes two specific initiatives:

- The TTC, the City and Metrolinx work collaboratively with the private sector to launch an autonomous shuttle trial connecting residents of the West Rouge neighbourhood with TTC, Durham Region Transit and GO Transit services at the Rouge Hill GO Station. This uses an autonomous vehicle to test Microtransit in an area that lacks transit service; and

- The TTC to improve connections for customers who use TTC services and private high-occupancy Microtransit shuttle services. This includes integrating schedules for improved trip planning and enhancing wayfinding, as well as piloting physical improvements at Don Mills Station.

The TTC will continue to move forward with the two Microtransit initiatives outlined in the 5-Year Service Plan. As indicated in the 2021 Annual Service Plan, both initiatives were delayed due to the COVID-19 pandemic. The launch of the trial, which will provide a new connection from Rouge Hill GO Station to the neighbourhood of West Rouge via an Olli 2.0 automated transit shuttle, is now planned to occur in fall 2021 if public health conditions permit. Over the coming months, additional planning and community consultation will take place. The improved connections for customers who use TTC services and private high-occupancy Microtransit shuttle services is now planned to be completed by the end of 2021.

d. Fare and Service Integration

The TTC is collaborating with municipal transit agencies in Mississauga, Brampton, York Region and Durham Region to advance service and fare integration.

The TTC 5-Year Service Plan and 10-Year Outlook identified a 20-point action plan including expanding service integration. The ultimate goal is to deliver better transit service and connect residents between their homes and employment, educational and cultural pursuits across the region.

Brampton Transit, Durham Region Transit, Mississauga Transit (MiWay), the TTC and York Region Transit are working on a joint project with an immediate focus of streamlining service on the 24 existing corridors in operation today that cross municipal boundaries. The goal is to improve our customers' experiences, eliminate service inefficiencies and enhance opportunities from a social equity perspective. The municipal partners are in the process of finalizing the business case and an implementation plan, staff will report to the Board in June.

The TTC is also developing a 5-Year Fare Policy and 10-Year Collection Strategy, in partnership with York Region Transit. The mandate of this initiative is to understand the gaps in the current system and find opportunities for improvement in the fare structure, policies and collection practices. York Region Transit has expressed direct interest in collaborating with the TTC, with a goal towards achieving fare and service integration between both agencies. The TTC will also continue to engage with other neighbouring 905 transit agencies. This collaboration will inform the development of fare policy goals and objectives, and will help take a step towards achieving broader fare and service integration across the region.

Engagement with the Province of Ontario, Metrolinx and other municipal transit leaders to explore opportunities to advance fare and service integration is also ongoing. The TTC will report to the Board on advice and recommendations where applicable as a result of engagement.

4. Financial Update

\$1.3 billion in relief funding is available and the estimated remaining funding gap, inclusive of 2021 projected budget variances is \$126.3 million. TTC staff continue to work with our funding partners to address the remaining funding gap.

a. Available Funding for COVID-19 Financial Impacts

To date, the financial impact of COVID-19 has primarily been offset by financial support received from our Federal and Provincial partners through the Safe Restart Agreement (SRA) and the Municipal Transit Enhanced Cleaning program (MTEC). In all, including the most recent March 3, 2021 Provincial announcement, \$1.312 billion in funding has been made available to the TTC to offset operating funding shortfalls due to the financial impacts of COVID-19 in 2020 and 2021.

The funding made available for transit purposes clearly recognizes the role that transit has played during the pandemic to keep essential workers and the economy moving, as well as the key contribution that transit will play in the economy's recovery. The TTC is grateful for the funding that has been provided as it ensured the reliability of transit services when it was needed the most.

The following table, Table 3, summarizes the Federal and Provincial funding, which has been made available to the TTC and compared to 2020 and 2021 funding requirements.

Table 3: 2020-2021 Available and Required Funding

Program	Time Period	(\$M)
Available Funding		
MTEC	Apr 2020 - Dec 2020	\$7.4
SRA – Phase 1	Apr 2020 - Sept 2020	\$437.4
SRA – Phase 2	Oct 2020 – Mar 2021	\$472.1
SRA – Phase 3	Apr 2021 - Dec 2021	\$395.2
Total Available Funding		\$1,312.1
Funding Required		
2020 City Funding Shortfall		\$590.2
2021 Budgeted COVID-19 Impact		\$796.4
Total Funding Required		\$1,386.2
Funding Shortfall, Based on 2021 Budget		\$74.5+*

* Additional funding required may increase due to the factors noted below.

b. Funding Update

As part of the 2021 Operating Budget presented to the Board on December 21, 2020, a \$184.7 million funding shortfall for 2021 was identified based on the then known SRA

funding available to the TTC. This shortfall has since been reduced to \$74.5 million, due to:

- A favourable change of \$19 million in year-end 2020 results, relative to the Q3 projection, primarily due to higher than anticipated cost containment achieved.
- The March 3, 2021 announcement by the Province, which established a third phase under the SRA Agreement and provided an additional \$91.2 million in top-up funding for the City/TTC.

While the TTC's 2021 funding gap has been reduced to \$74.5 million based on COVID-19 impacts included in the 2021 Operating Budget, there are two key factors that are likely to increase this shortfall:

- **SRA Funding:** The inability to carry-over unused Phase 2 funding beyond March 31, 2021 to Phase 3 will result in a reduction of total available funding that can be utilized.
- **2021 COVID-19 Budget Impact:** The 2021 COVID-19 financial impact may exceed the amount estimated in the 2021 Operating Budget based on current events.

These two key factors are described below.

SRA Funding

As shown in the following table, Table 4, Phase 2 eligible impacts are currently estimated at \$440.3 million.

Table 4: Phase 2 Estimated Impacts

Phase 2 Estimated Impacts (\$M)	
Passenger Revenue, Net of PRESTO Commissions	\$423.2
Ancillary Revenues (Advertising, Parking, Subway Concessions)	\$17.8
Incremental Expenses	\$20.9
COVID-19 related savings	(\$21.6)
Total Phase 2 COVID-19 Financial Impact*	\$440.3

*Excludes non-COVID-19 related under-expenditures.

Of the total Safe Restart Agreement funding made available to the TTC, \$472.1 million was specifically assigned to Phase 2 and must be applied to eligible impacts between October 1, 2020 and March 31, 2021. Given that the eligible impacts for this time period are estimated to be \$440.3 million, the TTC will be unable to claim approximately \$31.8 million in Safe Restart funding.

The TTC and the City have engaged the Province of Ontario to request the roll-over of Phase 2 funding, as one approach to support the ongoing fiscal impacts of COVID-19 on the TTC and public transit in general.

c. 2021 COVID-19 Budget Impact

The 2021 COVID-19 financial impact may exceed the amount anticipated in the 2021 Budget, due to passenger revenue trending below budget. As described below, the first quarter's unfavourable passenger revenue variance has been fully offset by under-expenditures. With the latest Stay-at-Home Order enacted, however, revenue shortfalls are likely to exceed projected under-expenditures to year-end.

Passenger Revenue

When the 2021 ridership budget was finalized in early December 2020, passenger revenue had been trending at 30% of pre-pandemic levels. The 2021 Operating Budget's revenue estimate was established on the basis that this ridership level would continue into 2021 with gradual increases in passenger revenue throughout the year that would reach 49% of pre-pandemic levels by Q4 2021, as shown in Figure 5 below.

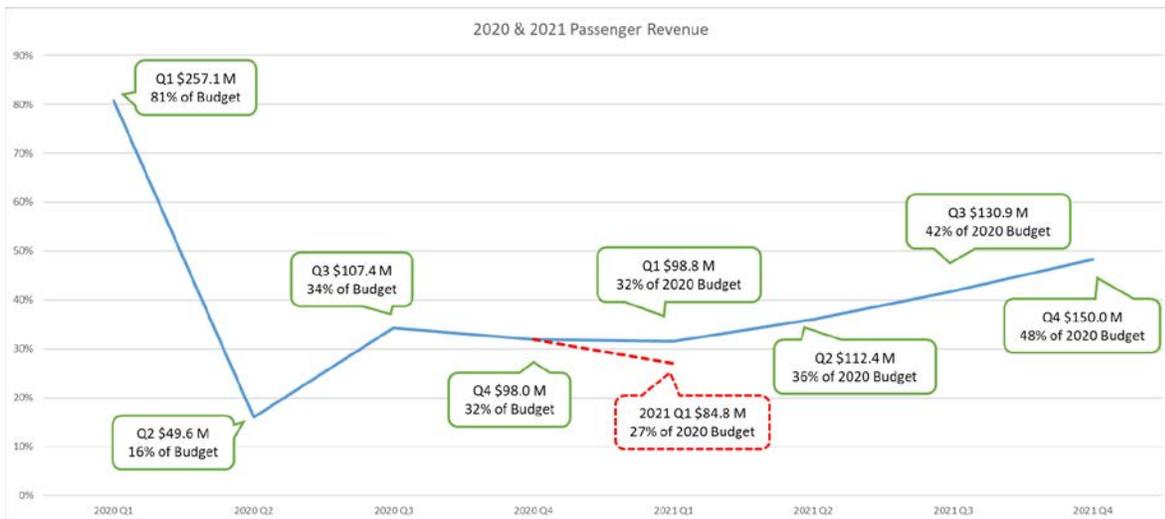


Figure 5: 2021-2021 Passenger Revenue

Shortly after budget approval, Ontario entered a four-week lockdown beginning on December 26, 2020, with a Stay-at-Home Order for Toronto issued on January 14, 2021. TTC passenger revenue fell below budgeted levels throughout January, reaching a low of 24% of pre-pandemic, or normal levels, during the week of January 17.

As schools reopened on February 16, passenger revenue increased to 27% of pre-COVID-19 experience. Entering the Grey zone on March 8, TTC passenger revenue increased to 30% of pre-COVID-19 experience throughout March, and was as high as 31% of pre-COVID-19 experience during the week of March 28. As shown in Figure 6 below, while passenger revenue had trended below budget throughout the first quarter, it had recovered to within 1% of the revenue estimate budgeted for the end of the first quarter, resulting in a cumulative passenger revenue loss of \$14 million.

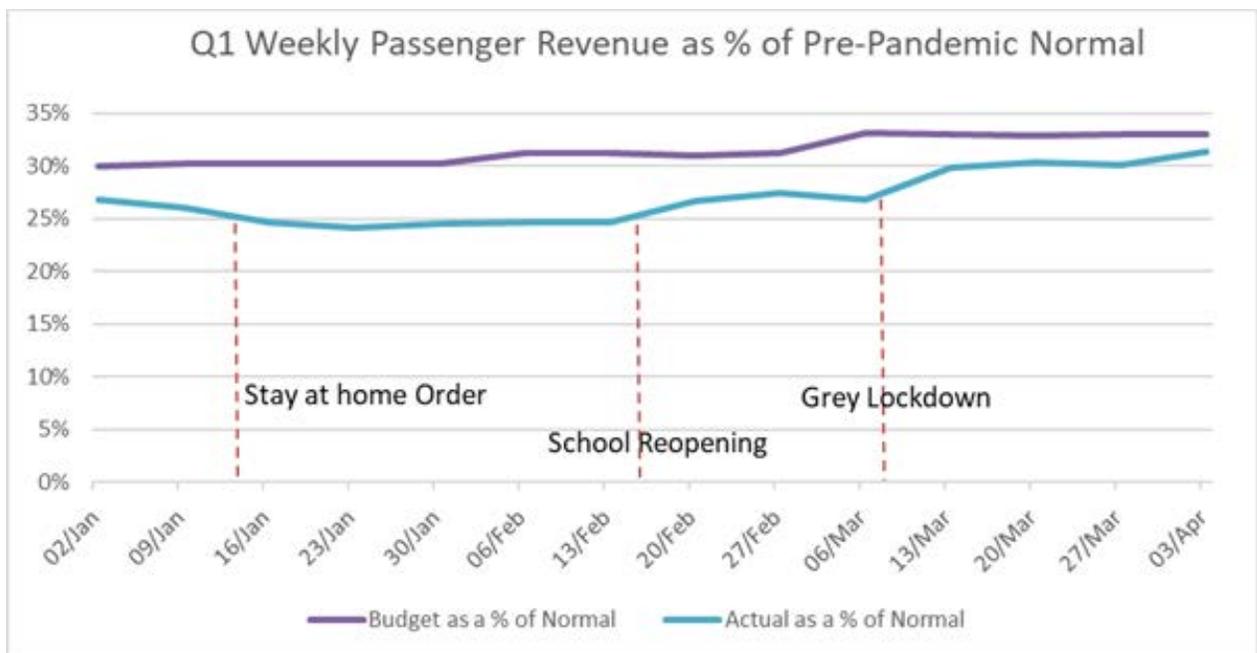


Figure 6: Q1 Weekly Passenger Revenue as % of Pre-Pandemic Normal

Q1 Operating Financial Results

To the end of the first quarter, the shortfall in passenger revenue of \$14 million has been fully offset by under-expenditures, as summarized in Table 5 below.

Table 5: 2021 First Quarter Financial Results

2021 First Quarter Financial Results			
	Actual	Budget	Variance
Revenue			
Passenger Revenue			
TTC Conventional	84.8	98.8	(14.0)
Wheel-Trans	0.7	0.9	(0.2)
Ancillary Revenue	9.0	9.4	(0.4)
Total Revenue	94.5	109.1	(14.6)
Expenses			
TTC Conventional			
Wages & Benefits	365.1	374.6	(9.5)
Energy	36.9	39.0	(2.1)
COVID-19 Incremental Response	11.2	13.8	(2.6)
Materials, Services & Corporate	72.0	79.8	(7.8)
Subtotal TTC Conventional	485.2	507.2	(22.0)
Wheel-Trans	23.1	27.9	(4.8)
Total Expenses	508.3	535.1	(26.8)
Net Shortfall/(Savings)	413.8	426.0	(12.2)

Overall expenditures were 4.3% below budget for TTC conventional service and 17% below budget for Wheel-Trans. Key drivers of these under-expenditures in the first quarter are:

- Continued expenditure management resulting in deferred hiring and material purchases wherever possible.
- TTC conventional service levels operating slightly below budget, resulting in wage and energy under-expenditures.
- Wheel-Trans trip demand being approximately 20% below budgeted levels resulting in reduced contract taxi and reservations costs.

Projection to Year End

With the provincial shutdown effective April 3, 2021 and the subsequent Stay-at-Home Order in place, the revenue shortfall to budget is accelerating in Q2. Passenger revenue is currently 25% of pre-pandemic levels, essentially consistent with January 2021 actual experience. This, however, results in a growing margin between budgeted revenue levels and actual experience, as the budget assumed passenger revenue would be approaching 34% of normal levels in April as part of a gradual recovery through Q2.

At the same time, the pace and extent of under-expenditures is expected to narrow in the coming quarters, as amongst other initiatives, operator hiring has recently recommenced in order to support a full return to pre-pandemic service levels by the start of 2022. When both anticipated revenue and expenditure trends are considered, the margin of revenue loss will exceed under-expenditures to year-end, resulting in a budget shortfall of approximately \$20 million, as shown in Figure 7 below.

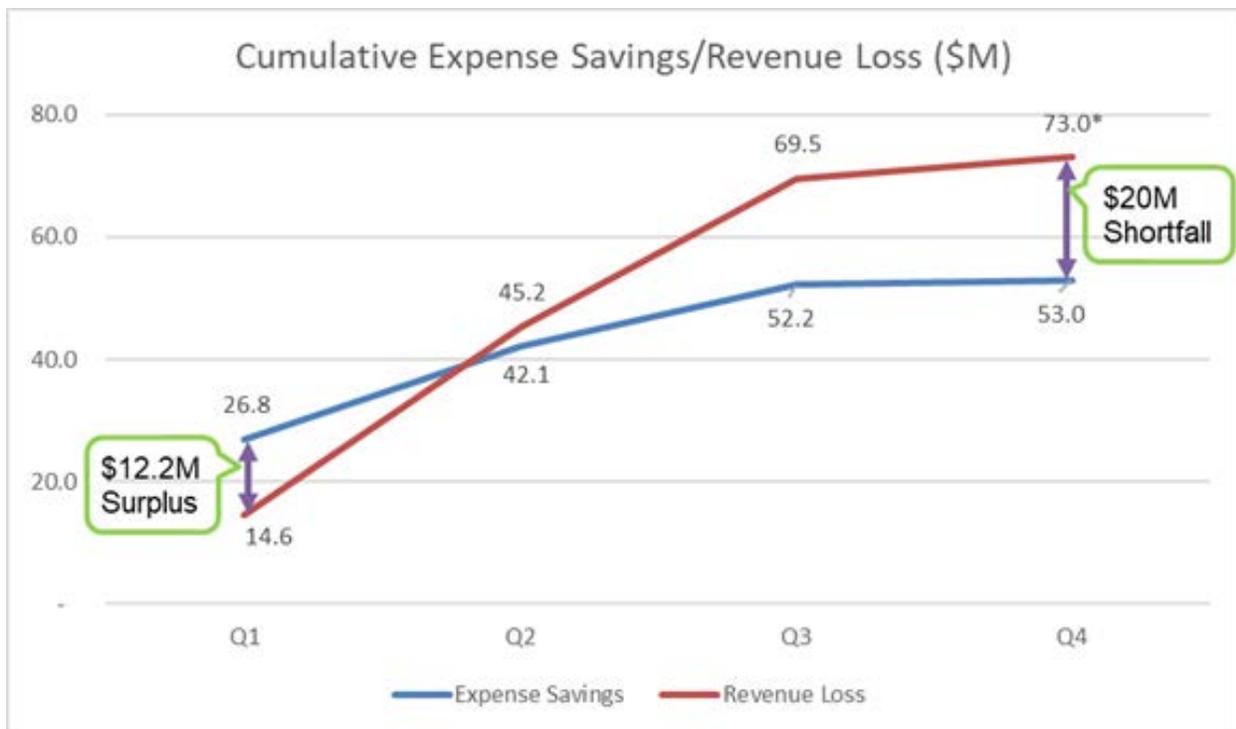


Figure 7: Cumulative Expense Savings/Revenue Loss

*Revenue loss includes approximately \$3 million in shortfalls related to ancillary revenues.

Passenger Revenue Forecast

Given the TTC's current experience, a shortfall in passenger revenue of approximately \$70 million is anticipated by year-end. Key assumptions incorporated into this projection include:

- Expiry of the current Stay-at-Home Order on May 20, as currently scheduled;
- Schools and post-secondary institutions continue exclusive remote learning for the balance of the current school year, with a return to in-person learning in September;
- Substantially all adults are vaccinated by the end of August; and
- Partial return of non-essential trips (office, leisure) in Q4.

It should be noted that, while a passenger revenue variance to budget of \$70 million is currently projected, this variance can be as high as \$95 million if the current emergency orders are extended past May 20 and ridership returns at a slower-than-expected pace through the summer months.

As shown in the following figures, Figure 8 and Figure 9, this budget variance is expected to be concentrated in Q2 and Q3. Q4 is expected to substantially align with budgeted levels, as key assumptions regarding vaccinations, return to school and non-essential trips currently remain consistent with those assumed for the fourth quarter. The TTC will continue to monitor and update forecasts throughout 2021 as new information becomes available.

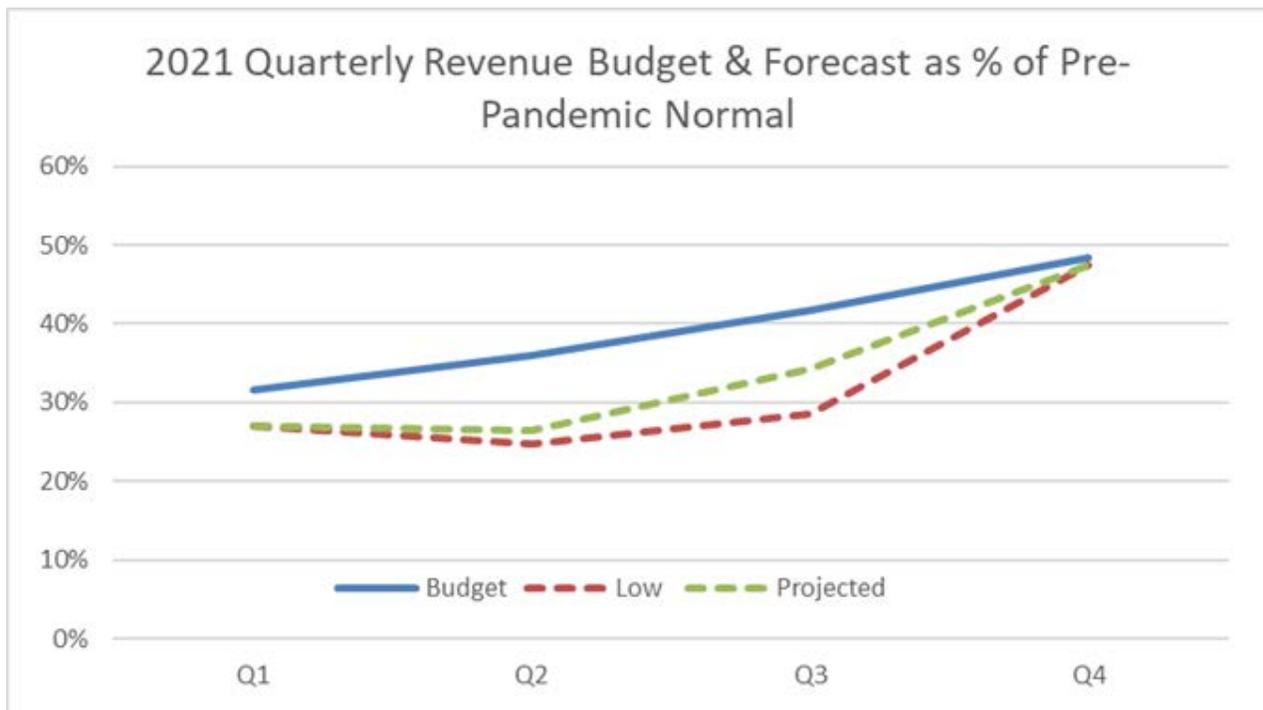


Figure 8: 2021 Quarterly Revenue Budget and Forecast as % of Pre-Pandemic Normal

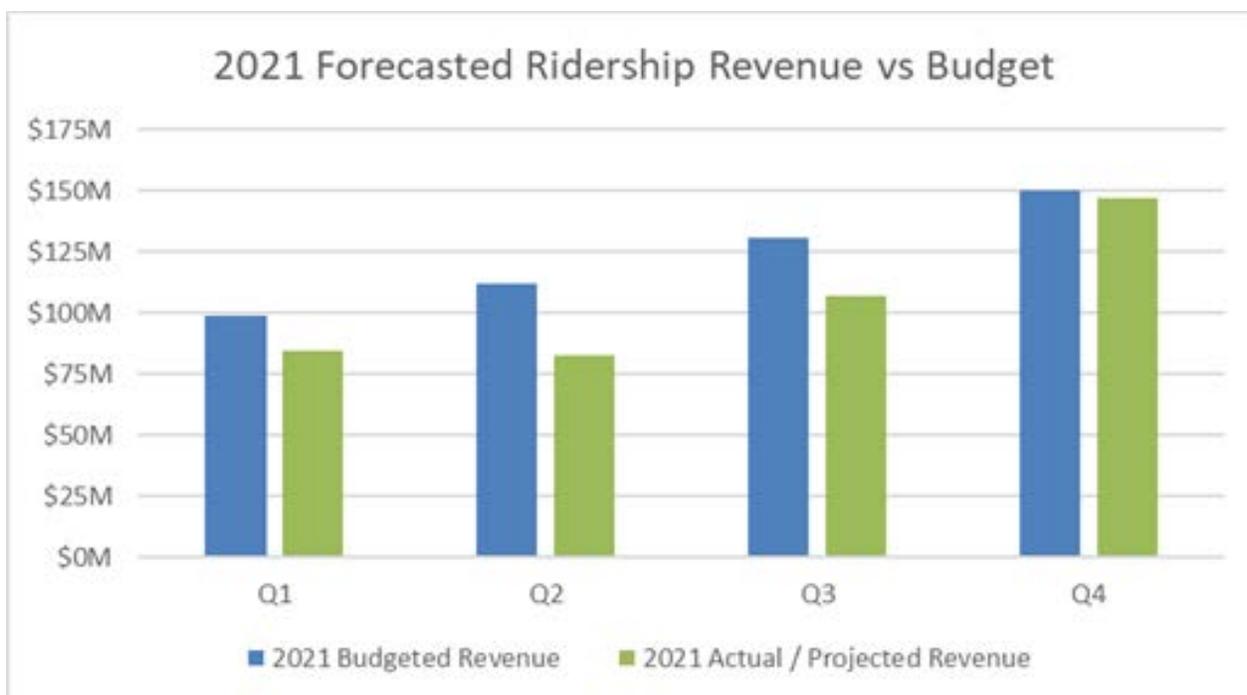


Figure 9: 2021 Forecasted Ridership Revenue vs Budget

COVID-19 Budget Impact: Projection to Year-End

As summarized in Table 6 below, it is anticipated that most of the passenger revenue variance to budget will be absorbed by under-expenditures. A preliminary assessment indicates that a \$20-million unfavourable budget variance is likely by year-end. This will be continually monitored and an update will be provided to the TTC Board's June 16, 2021 meeting as part of the Financial Update report for the four-month period.

Table 6: Total COVID-19 Financial Impact

TOTAL COVID-19 FINANCIAL IMPACT			
	2021 Budget	Preliminary Year-End Projection	Variance Over/(Under)
Passenger revenue, net of PRESTO Commissions	\$725.0	\$792.0	\$67.0
Ancillary Revenues	\$15.9	\$18.9	\$3.0
Incremental Expenses	\$55.5	\$55.5	(\$0.0)
Projected Under-Expenditure	-	(\$50.0)	(\$50.0)
Total	\$796.4	\$816.4	\$20.0

While all COVID-19 financial impacts to end of Q1 2021 have been fully addressed, the SRA funding risk to the end of 2021 is currently estimated at \$106.3 million, with an additional \$20 million COVID-19 budget impact likely based on current revenue and expenditure trends, as shown in Table 7 below.

Table 7: 2021 Estimated Funding Shortfall

2021 Estimated Funding Shortfall (\$M)	
Funding Shortfall identified in 2021 Budget	\$184.7
Favourable 2020 Year-End Results	(\$19.0)
Additional funding announced March 3	(\$91.2)
SRA Funding Shortfall: Available Funding vs 2021 Budgeted COVID-19 Impacts	\$74.5
Add: Unused Phase 2 funding	\$31.8
Subtotal: SRA Funding Shortfall, including unused Phase 2 funding	\$106.3
COVID-19 Budget Impact, net of under-expenditures	\$20.0
Total Estimated Funding Shortfall	\$126.3

TTC staff continue to both effectively manage non-COVID-19 expenditures and work with City, Provincial and Federal counterparts to ensure net-COVID-19 financial impacts are fully addressed. As noted above, additional support has been provided by the Province since the 2021 Budget was approved and staff will continue to update the Board as further developments occur and noted risks are mitigated or resolved.

Contact

Kirsten Watson, Deputy Chief Executive Officer
 416-393-6119
 kirsten.watson@ttc.ca

Betty Hasserjian, Chief Safety Officer (Acting)
 416-393-4574
 betty.hasserjian@ttc.ca

Kathleen Llewellyn-Thomas, Chief Strategy and Customer Officer
 416-475-2334
 kathleen.llewellyn-thomas@ttc.ca

Josie La Vita, Interim Chief Financial Officer
 416-393-3914
 josie.lavita@ttc.ca

Signature

Richard J. Leary
 Chief Executive Officer

ⁱ COVHITS was leveraged with other data sources, including Statistics Canada's Canadian Survey of Business Conditions (CSBC), Strategic Regional Research Associates' Downtown Office Occupancy Index and mobility indicators from Apple and Google, to help develop insights on how transit demand has decreased to the low-to-mid 30% range of pre-COVID-19 levels observed in fall 2020.