



Toronto Student Transportation Group

Annual Report 2019-2020

General Managers Report

It is with pleasure that I provide this annual report on the activities of the Toronto Student Transportation Group over the past school year. This report summarizes the activities and plans that the transportation consortium has undertaken over the past school year. The summary of data, activities, challenges, and successes is reflective of the joint transportation unit that has been supplying transportation services to the Boards for over a decade.

Who could have envisioned in September 2019 how the school year would have ended! No school buses on the road from the March Break to the end of the school year due to the global pandemic Covid-19. The pandemic impacting almost every aspect of our daily lives including how educational services were delivered to our students. We can only imagine how different things would have been had the pandemic hit 20 years earlier or should we be hit again 20 years in the future. Technology and how people interact with the world around us is constantly changing and we need to be prepared to adapt with these changes.

The transportation unit was in a very good position to respond to the pandemic. Working remotely for almost 8 months because of the fire at York Memorial where our offices were located and forcing the transportation team to put in place technologies and processes that allowed us to continue operating despite our dislocation from our work office. No more than two months back in the office after the clean-up and remediation work and we were once again thrown into a remote situation with the onset of the corona virus. No one person or unit really could have met these challenges alone so we are extremely grateful to those staff, departments, and the School Boards in general for the work that was done to ensure that we can continue to deliver student transportation services in a safe and timely manner.

This report highlights some of the issues, challenges, and successes that the Toronto Student Transportation Group has experienced over the past school year.

Sincerely,

A handwritten signature in black ink, reading "Kevin Hodgkinson", followed by a horizontal line.

Kevin Hodgkinson
General Manager

Mission and Vision Statement

Mission Statement

Service: To facilitate the provision of safe, secure, and consistently on-time delivery of student transportation services for those students entrusted in our care.

Cost Effective: To provide adequate, equitable, and fair services to those members that actively look for the best means to achieve cost effective transportation solutions.

Accountable: To provide effective, efficient, and accountable solutions that meets the needs of our stakeholders.

Communications: To actively pursue initiatives that will maximize the level of service provided to our stakeholders.

Responsibility: To actively pursue economic, environmental, and social initiatives that will allow us to lead the way in meeting public demand.

Human Resources: To actively pursue programming and training that will assist staff in delivering a level of service that exceeds our shareholder's expectations.

Vision Statement

To provide and facilitate intermodal transportation solutions so that all school aged children can equally access education.



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INTRODUCTION

The Toronto Student Transportation Group (TSTG) is a consortium formed to manage and facilitate the student transportation services for the Toronto Catholic District School Board (TCDSB) & Toronto District School Board (TDSB). The TSTG provides transportation services for approximately 50,000 students in more than 800 schools and centres throughout the City of Toronto. Seven different school bus operators in eleven divisions provide more than 1800 vehicles to provide transportation services for students with a budget of just over \$100,000,000.

The consortium is physically located at 2 Trethewey Dr with a staff of 28 individuals responsible for the operation, planning, technology, and safety of transported students.

History

The TDSB & TCDSB have been sharing transportation services since 1995. Laidlaw Planning Services was originally hired to implement a computerized routing solution that optimized the TCDSB regular home to school fleet and integrate the TCDSB and North York School Boards special education routes. These two routing solutions removed over 100 buses from the road and saved the Boards over \$3.2M in transportation expenditure. Over the next eight years, the former cities making up the current City of Toronto were systematically introduced into the combined routing solution removing an additional 38 buses from the system.

In 1998 the key planning staff from Laidlaw was recruited to form the nucleus of shared transportation services provided by the Boards. The introduction of new staff was complemented by an introduction of an upgraded transportation planning management software from Education Logistics. With staff and technology in place, the Boards had the key component to managing and maintaining transportation services. Transportation staff from both Boards relocated in 2005 to the TDSB's Trethewey facility where the operations, planning, technology, and safety units work together to facilitate and deliver transportation services. In September of 2011, the two School Boards signed a membership agreement officially creating the 'Toronto Student Transportation Group'.



A Look Back

The 2019 -2020 school year provided the Toronto Student Transportation Group with several challenges that not only provided obstacles but also opportunities to understand and improve the way we do business.

A New Home

Monday May 6th, 2019 may be a day that transportation staff remember for quite a while. On that day, a fire broke out at York Memorial High School which is attached to our administrative building. What first started out like another fire evacuation test quickly turned into shouts and shock at the sight of dark black smoke pouring out of the high school. Thankfully, all staff and students got out of the building safely.

With the arrival of emergency vehicles, many staff were forced to wait as personal vehicles were not accessible. Some staff received lifts home from co-workers and others took transit. Some staff did remain on site and thanks to the TTC had a vehicle available for staff use that was dry and warm. Thanks to technology, a handful of hotspots popped up so some staff could maintain services until others reached home where they could take over



operations. A hardy thanks to all emergency personnel on site that day and a special thank you to the TTC who not only provided the vehicle but food and water for individuals stuck at the site. Some staff who were unable to remove their vehicles that night returned the following day to find cars covered in soot and ash.

The following day we awoke to hear that the fire reignited in the middle of the night and that the facility was on fire again. Looking less and less like re-occupation was possible we enacted our Disaster Recovery Plan to maintain operations. Staff were directed to the Catholic Board's Our Lady of Mount Carmel site which was designated the relocation facility for transportation. Normally used as a training facility the transportation unit took over a room from which to operate out of. Quickly finding that the space was not big enough, we expanded into other rooms so staff had space to work without being on top of one





another. Another round of thanks goes out to all the Board departments both Public and Catholic for assistance while we made this transition. A special thank you to the Information Technology departments who quickly got us set up and connected so that we could carry on transportation duties.

Access to the Trethewey facility was not allowed post fire for several months, however, due to transit tickets and monetary funds on site we were able to have one individual access the site. Outfitted in full safety gear from head to toe including respirator they entered the building to open the safe to access and retrieve these items. Given the possibility of asbestos from the main school building settling on items in the Trethewey facility, no other items were allowed to be removed immediately after the fire. The 2019-2020 school year ended with us continuing to work out of this facility while the Trethewey facility was under repair and cleaning.



The Driver Shortage

We had hoped to start the 2019-2020 school year off on solid footing and it seemed leading up to school start that we would be. All summer long we had reports of school bus driver recruitment well under way to support the driver retention programs that carriers had in place. Media blitzes, job fairs, and personal recruitment were all in place to entice new applicants into the system along with drive retention programs and consistent communication with that group. The assignment of routes to drivers by the school bus companies normally does not take place till just weeks before school starts. It was during these weeks leading up to school start that bus companies informed us that many existing drivers were not returning. When examining the reasons for not returning there were a few common issues like pay, working conditions, and poor behaviour from students and parents, but the number one reason was normally found to be a full-time job was secured by the driver.



So, the 2019-2020 school year started with some routes without drivers assigned and the service covered by other drivers who could fit it into their schedule. September is historically a difficult month for the school bus operators to make headway in recruitment as those drivers coming in are often offset by other drivers leaving during this timeframe. Once you move past the Thanksgiving long weekend the transportation system not only settles down with fewer changes, but the driving force starts to solidify as well.



Logistical issues that spring up each September were compounded by a shortage of drivers making it sometimes difficult to discern what was legitimate logistical issue versus an issue that was breed from companies moving drivers around to ensure serviceability for all students.

New Safety Program

Starting in the winter of 2019-2020 the TSTG moved to a new school bus safety program that was designed to ensure that the curriculum was consistent across the Province. Move over Winnie the Pooh and say hello to Buster the Bus!

Buster is a miniature robotic school bus that interacts with young school aged students as they walk through some of the important school bus safety issues. Buster has visited some of our schools during school bus safety week in October for several years previous but is just now being deployed to all schools. Buster is accompanied by several staff from 'Intertrain' who focus on delivering school bus safety messaging in an



interactive and fun way to ensure students stay engaged.

Older elementary students who may not be as enamored with Buster participate in other interactive style experiences more to their age group level. Family feud style competitions between groups of students helps students participate in the experience and show off what school bus safety knowledge they have learned. Other aspects of the program use animation, music, film, and interactive games

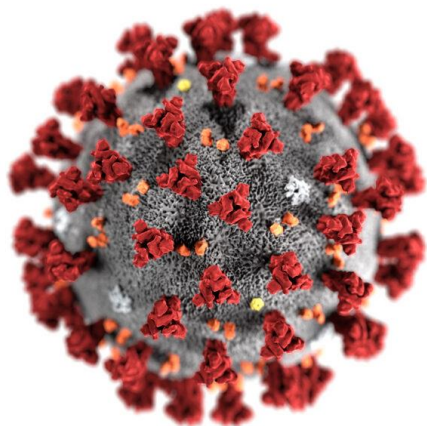
to drive home the safety message. These new programs funded by the Ministry of Education help us reach more students than ever before to ensure that while travelling on a school bus whether it is every day or for a field trip that everyone understands their responsibilities and being safe on the school bus. Student and teacher feedback has been extremely positive.

A Look Ahead

While successfully transporting over 50,000 students to and from school safely each and every day for another year we look ahead to the challenges and opportunities that the upcoming school years will hold for us.

Covid-19

The 2019-2020 school year ended like no other. Since the March Break, the corona virus has forced the suspension of student transportation services right through the remainder of the school year. Questions about what school and student transportation services would look like come September 2020 was extensively discussed and reviewed over the end of the 2019-2020 school year and into the summer. Would schools open, what would that look like, and how would we service those students. All questions that required a significant investment of time and energy to provide decision makers with data and scenarios that would best meet the needs of the Schools Boards and keep our students safe.



You can expect a significant breakdown of how Covid-19 impacted students transportation services in next year's annual report. Questions like how will schools cope if there is an outbreak at the school and what will transportation look like in an environment where distance is the primary means to ensure student safety. Distance being something not readily available on the school bus in many cases if it is still to be used as a means of mass transportation. At least in terms of a cost-effective measure to get students to and from school while ensuring their safety. Questions like how we are going to support our parents while still transporting students will be something that will need to be reviewed and discussed to ensure that we are still able to provide an educational experience for our students.



Cameras on the Bus

Currently in Toronto, we require two percent of our contracted fleet to be equipped with internal cameras. The reason behind cameras on the school bus is no different than where you find them elsewhere in use. To not only provide video evidence where incidents occur on the bus but more importantly to act as a deterrent to unwanted actions on the bus. Buses with cameras are currently rotated through the fleet or assigned to routes where problems have been identified.



There seems to be a convergence of new or updated camera technologies that may provide value on a school bus. Many of these technologies are already in use in passenger vehicles or in other commercial trucking operations.

The 360-degree camera fitted externally allows the driver to see all spaces around the bus. Minimizing those danger zones where they currently cannot see. External cameras mounted on

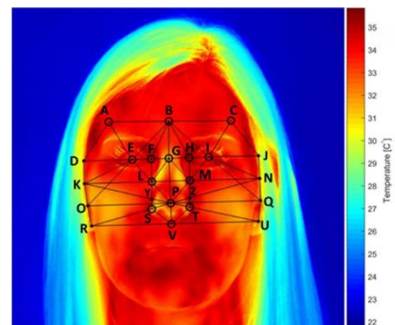


the stop arm to capture vehicles illegally passing a school bus with its lights activated. New legislation in Ontario means that these images could be used in a court of law as evidence of the illegal action and not require the driver to attend to present the data.

Dashboards cameras that are integrated with

the school bus electronics will allow for performance-based training. A hard break or speeding will be captured, and the dashboard footage used to help the driver avoid these issues in the future.

Thermal cameras have been considered as a possibility as a means to try and identify students that may be sick. Although current information suggests they are simply not accurate enough as they only measure skin temperature which may be very different than internal temperature. None the less, even if a handful of students are identified and checked at the school level and kept out of the main school population you may be able to improve the health and well-being of the school community.



Inclement Weather – Risk Analysis

For the past several years a qualitative review of information resources was used to catalogue and assess the viability of running busses on inclement weather days. This meant an early morning scouring of media resources to confirm the amount and severity of snow fall, wind speed, traffic and road conditions, police traffic reports, amongst others along with feedback

from our school bus operators. This provided a snapshot of what the day would look like and Board staff would decide on whether they felt student transportation services could be still run in a safe and timely manner.



either run buses or cancel them would have a better foundation. So, in order to create the matrix, we had to find data sources that provided pertinent and up to date data for this project. More than probably anywhere else in this country, traffic is a major component to moving students. A traffic incident on a stormy day can add several hours to a student's trip to and from school. When dealing with medically fragile students it is important to ensure that we can not only service the students in a safe manner but a timely manner as well.

Although these qualitative resources will still be used, we wanted to bring a level of quantitative data into the evaluation matrix. By using a mixture of qualitative and quantitative data it was felt that a decision to



The Ministry of Transportation has created a site that provides travel times in and around the city that we use as one of the indicators to determine serviceability. This in conjunction with more traditional measure like volume of snow, temperature, and Environment Canada alerts provide further data for review. Since we have seen driver shortages over the last several years it is most important to have a quantitative factor to assess how well our bus operators can deliver services in this environment. Often, some drivers are concerned about driving in such severe conditions and choose not to driver. A calculation on driver availability and how a company can respond in terms of their driver situation is also included as a factor for consideration. Hopefully, this combination of qualitative and quantitative factors will provide a more robust means to evaluate and determine if there is a need to suspend student transportation services on inclement weather days.

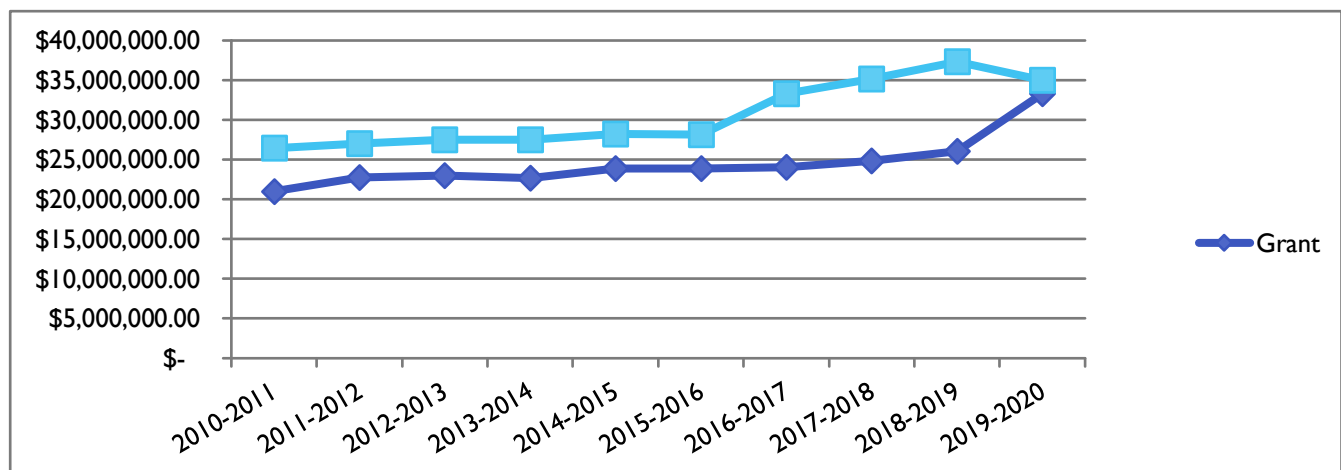
Student Transportation Services

Financial

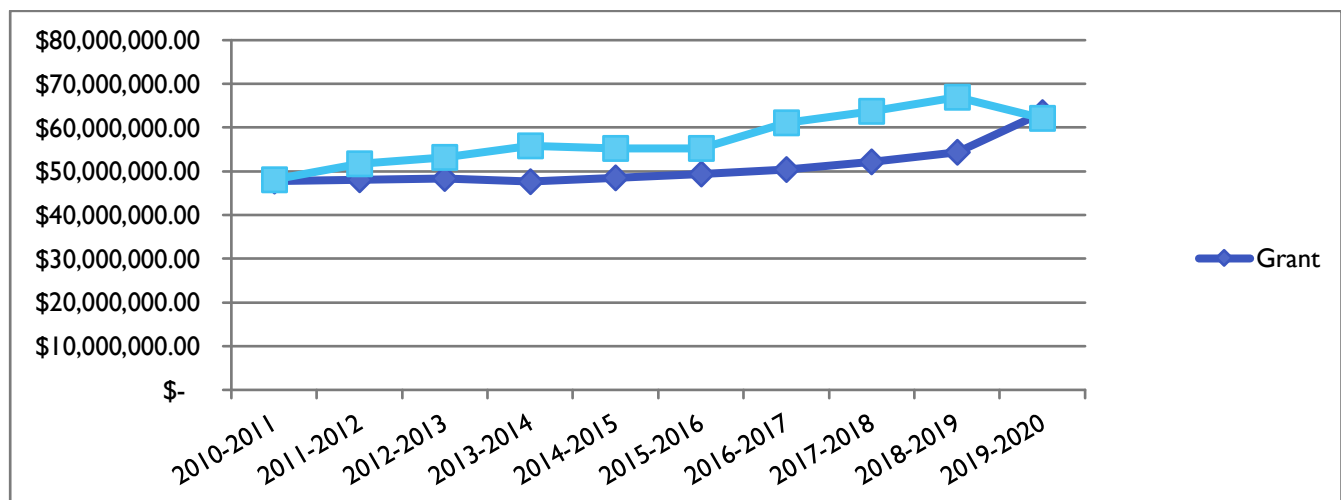
The Toronto Student Transportation Group was to spend about \$106M on transportation services for the TCDSB and TDSB for the 2019-2020 school year. With the onset of Covid-19 however, expenditure reached about \$104M. The Ministry of Education provided a transportation Grant in 2019-2020 of approximately \$33.3M for the TCDSB and \$63.3M for the TDSB. A breakdown of the transportation budget along with a historical summary of the Transportation Grant and Expenditure is displayed below:

1. Historical Transportation Grant vs. Expenditure

TCDSB

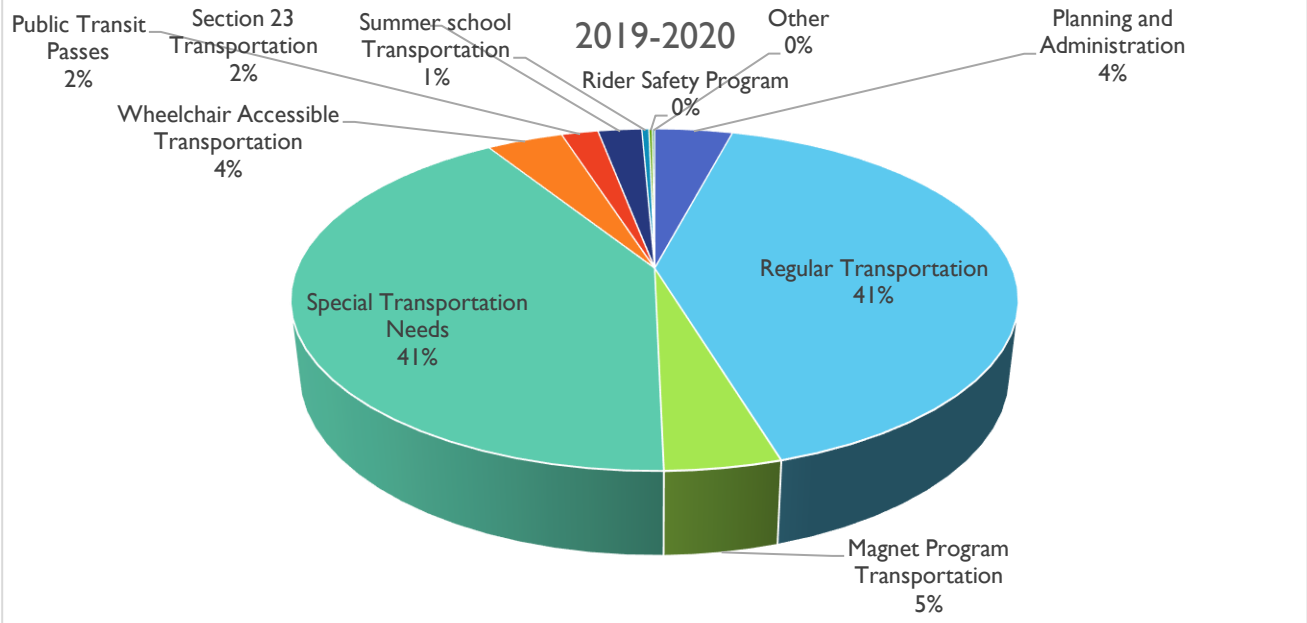


TDSB

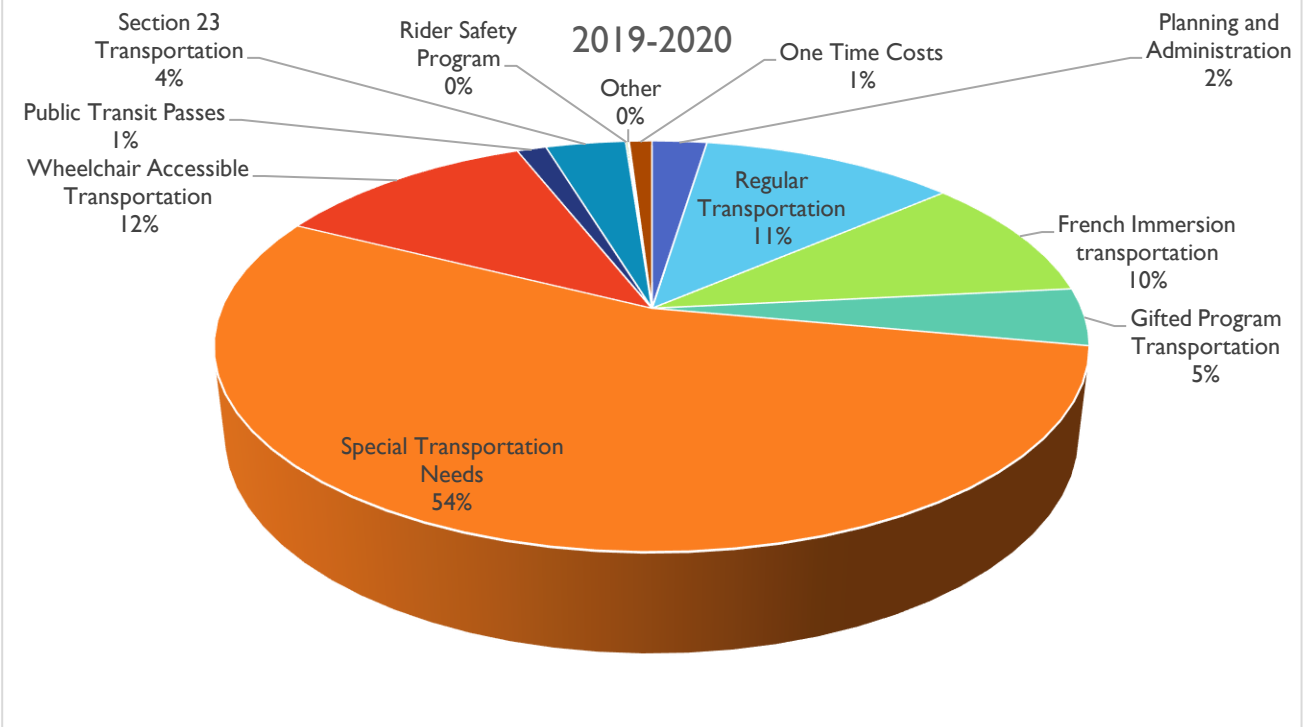


2. Transportation Expenditure by Area

TCDSB



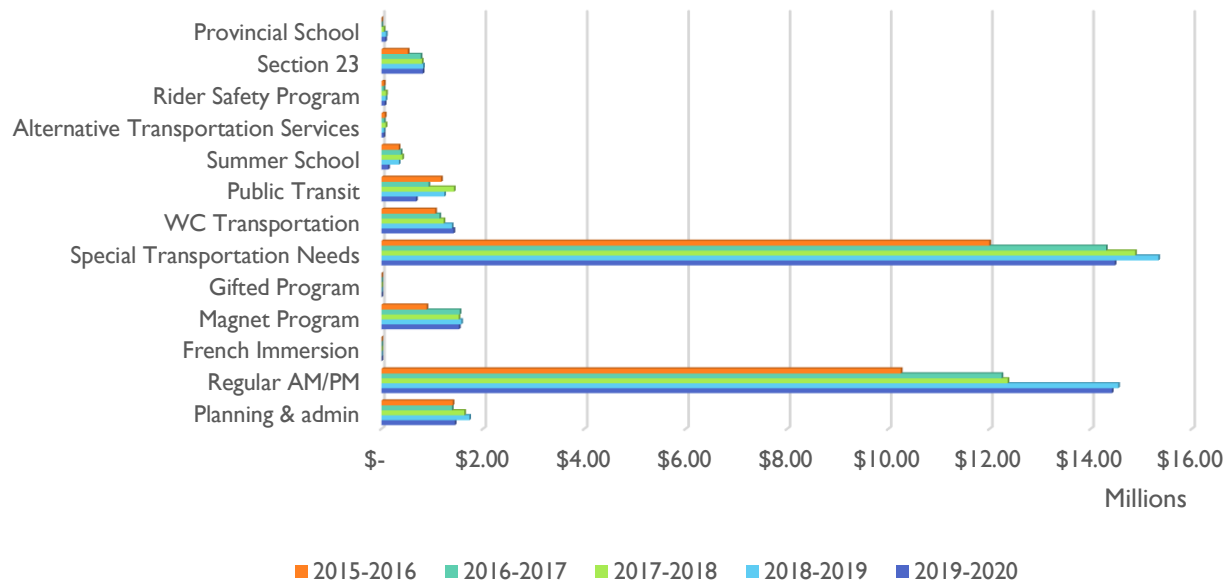
TDSB



3. Historical Summary of Transportation Expenditure 2014 - 2019

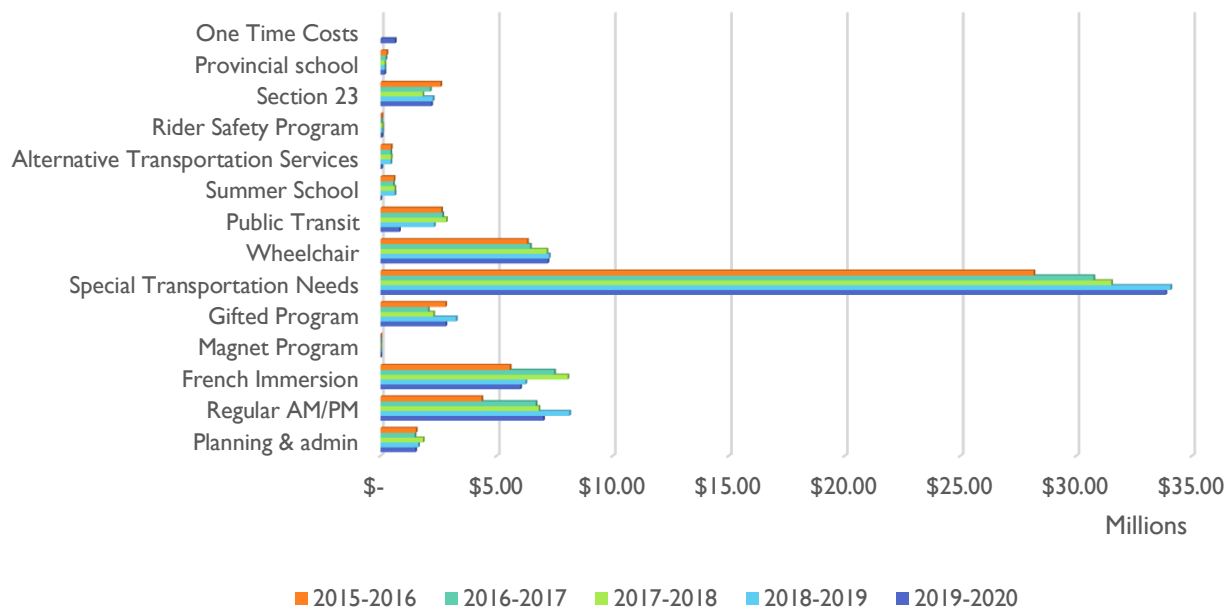
TCDSB

TCDSB Historical Expenditure Level by Service Area



TDSB

TDSB Historical Expenditure Level by Service Area



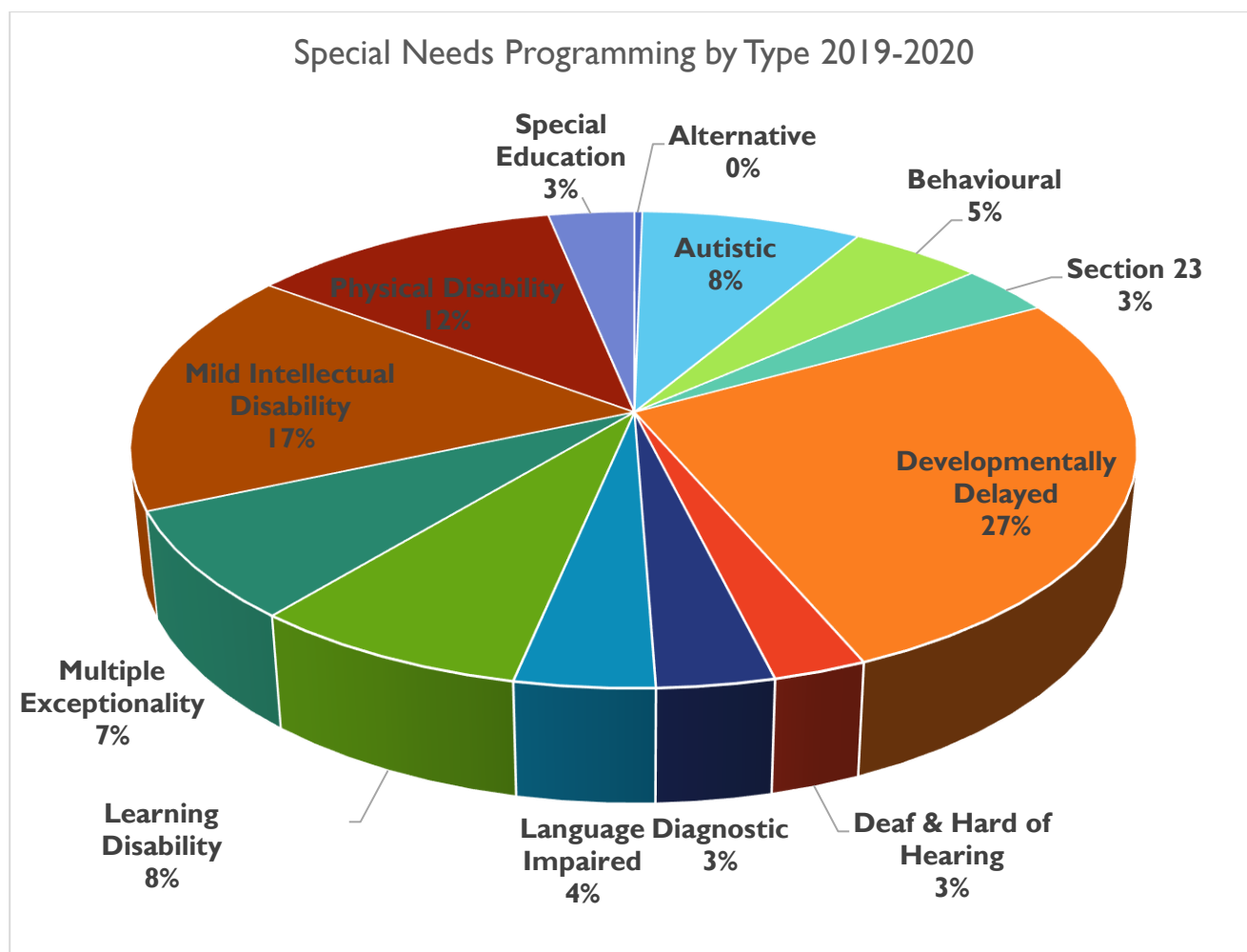
Programming

The TSTG services a large and dynamic student population within the City of Toronto. A majority of funding dollars is directed towards the student transportation services for students with special needs. Unique needs, geography, and modified program hours are just some of the factors impacting the delivery of transportation services for students with special needs. French Immersion, Gifted, and specialized withdrawal programs also contribute to the complexity involved in transporting students.

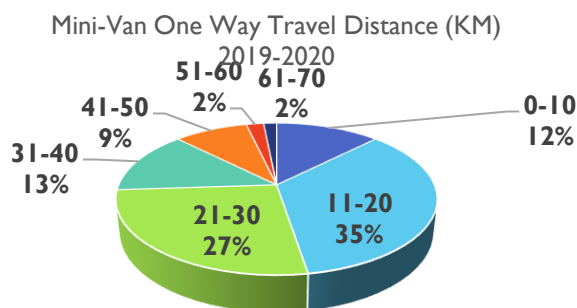
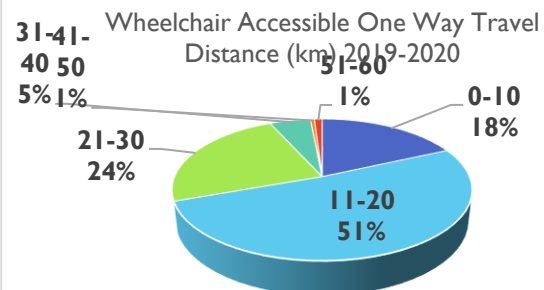
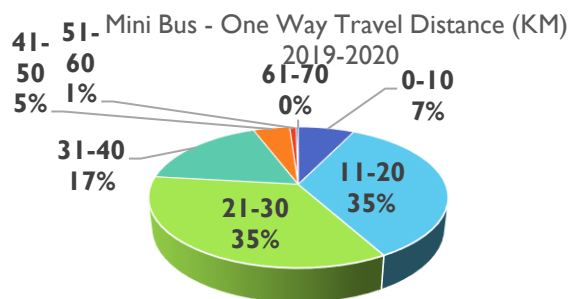
Special Education

Transportation for students with special needs has continued to grow from year to year. Given the geographic diverseness of this student population there is a significant expenditure required to ensure the safe and timely delivery of these students to their program locations. The following graph shows the percentage of students receiving transportation by program.

4. Transportation of special needs students by programming type

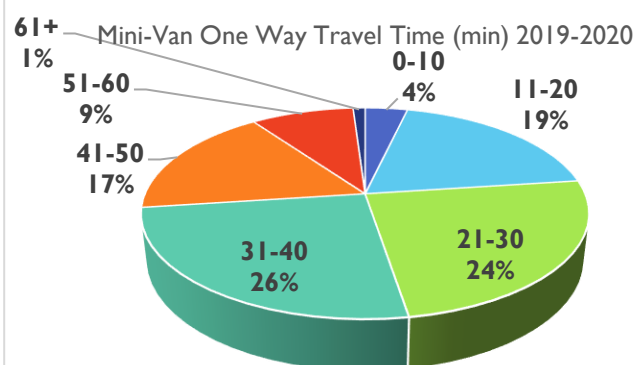
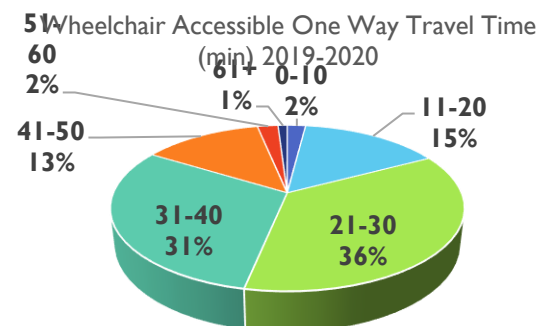
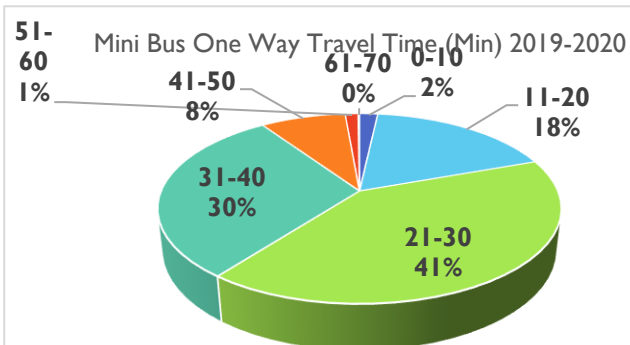


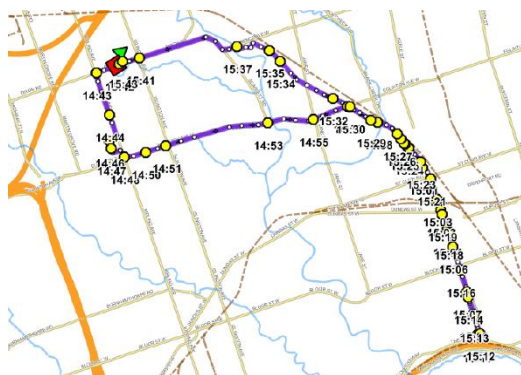
5. Distances that our special needs vehicles travel is a direct result of student location in conjunction with the school they attend along with the path taken to get from point A to point B. The data below shows the various distances our buses carrying students with special needs travel during a one-way trip.



Did you know that we use both Yellow and White Wheelchair Accessible School Buses? White wheelchair accessible buses are used when the bus can leave the roadway, so the overhead lights are not activated stopping traffic.

6. The time that our special needs vehicles travel is not only a result of their geographic location, but the nuances associated with their unique needs. Those needs could cover the time it takes to secure a student into a safety vest or the additional time it takes to load and secure student who uses a wheelchair. You will notice mini-van times on the high-end account for a higher percentage. Mini vans are used to transport our students who attend the school for the deaf at EC Drury in Milton, Ontario.





Operations

The transportation operations unit is responsible for the on-road delivery of transportation services. Staff facilitates the communication of planning changes, monitors school bus operations, evaluate operator qualifications and performance, and resolve operational problems. Operational staff uses several resources to help monitor the integrity of the transportation system and our performance.

Level of Service

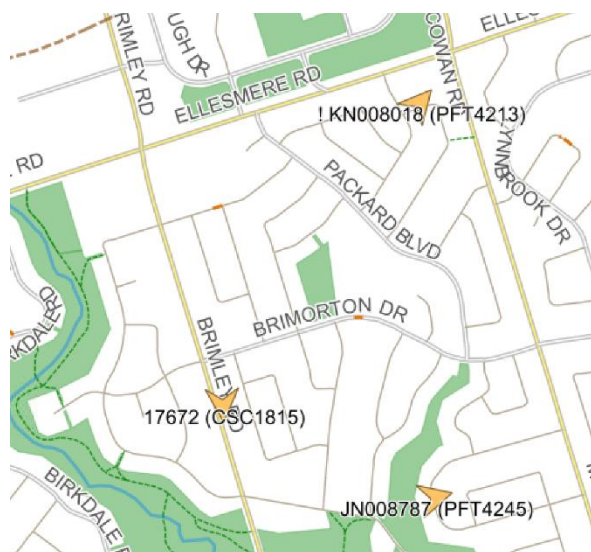
As part of the Consortiums annual review of routes, statistics are collected that identify trends in terms of how well services are provided. The most direct information is from schools and parents through surveys but there are also indicators that can be used to better understand service levels.

7. GPS and On Time Performance

The introduction of GPS technology on the school buses provides for a plethora of options to help monitor and improve services for our families and schools. One of the common complaints we receive is there is no indication of when a bus is late. To date, the bus carriers continue to update the late bus portal manually. However, as we get more familiar and confident that the data is accurate, we will be turning towards more automated forms to not only let our stakeholders know when a bus is late but as a pre-emptive measure to address before it becomes an issue at all. Tools and reports like the one below will allow us to measure how successful our school bus operators are at delivering services.

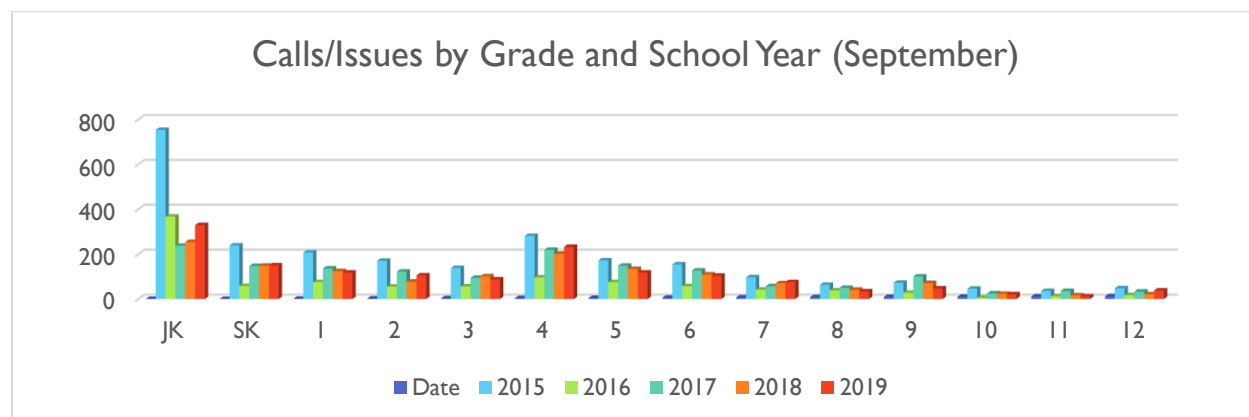
Results																					
	Route ID	Run ID	anned	Total Stop Counts						School Dropoff Stop Counts						School Pickup Stop Counts					
				# On Time	% On Time	# Early	% Early	# Late	% Late	# On Time	% On Time	# Early	% Early	# Late	% Late	# On Time	% On Time	# Early	% Early	# Late	% Late
1	PAR4301	HFLD.801	13	24	66.67%	4	11.11%	8	22.22%	9	90%	-	-	1	10%	-	-	-	-	-	-
2	PAR4301	HFLD.801 (MTF)	14	3	23.08%	10	76.92%	-	-	-	-	-	-	-	3	75%	1	25%	-	-	
3	PAR4301	HFLD.801 (W)	12	-	-	4	100%	-	-	-	-	-	-	-	-	-	1	100%	-	-	
4	PAR4301	HFLD.801 (R)	14	1	14.29%	6	85.71%	-	-	-	-	-	-	-	1	50%	1	50%	-	-	
5	Total			28	46.67%	24	40%	8	13.33%	9	90%	-	-	1	10%	4	57.14%	3	42.86%	-	-

Parents should be familiar with the picture to the right. Once logged into the parent portal they can use the 'Where's My Bus' tool to locate the bus in real time. Currently updated via an e-mail the consortium will be looking into the value of using text messages to send updates as well.

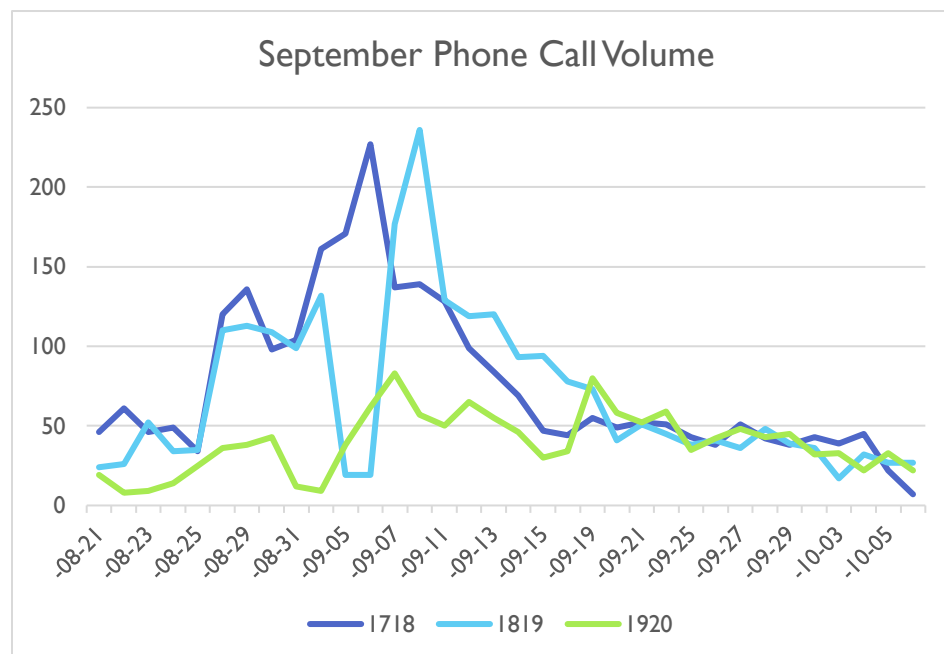


8. Addressing your Issues and Concerns

The consortium collects significant amounts of data as it pertains to the type and number of calls coming into the unit. With this data we can review to see if there are any trends or spikes in any areas that should be given more immediate attention. In the graph below you can see the call volume by grade type during September for the past 5 years. JK, grade 6, and grade 9 spikes are to be expected as they are doorway years to a different transportation policy (grade 6 only for TDSB) Grade 4 spike can be attributed to French Immersion and Gifted programs starting in that year.



By reviewing and addressing concerns we can start to build processes to help minimize those



issues in future years. Almost all call volume each year though seems to be directly tied to the number of bus drivers available to provide service.

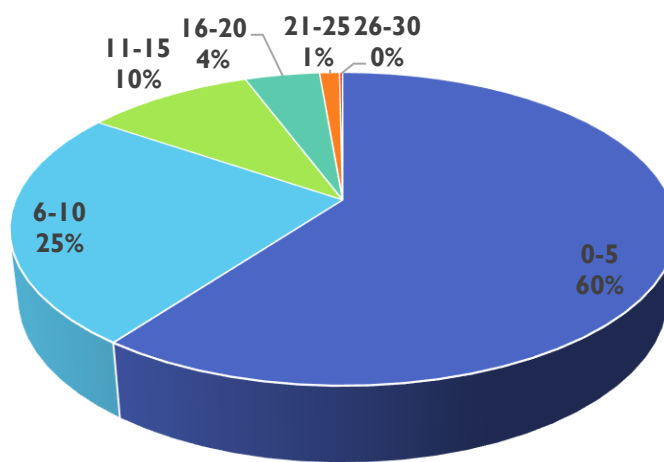
In the graph to the left you can see that call volume was down considerably the first two weeks school before settling into a more consistent pattern from the previous

years.

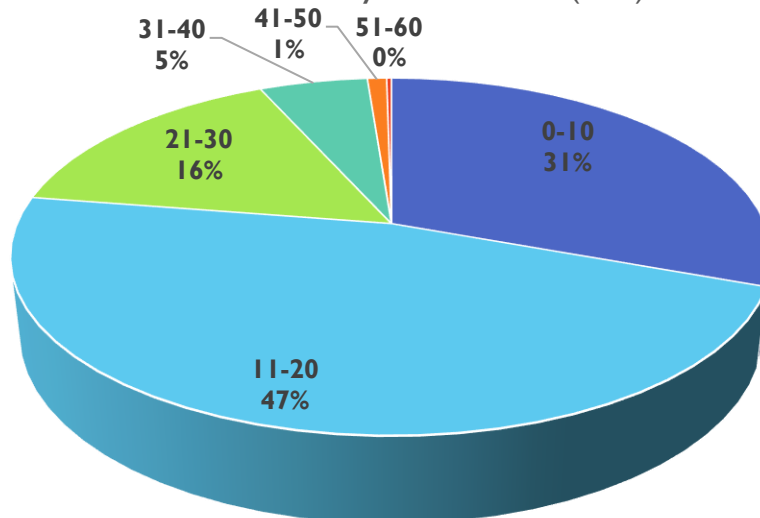
9. Service Level Indicators

As seen earlier in this report, the travel time and distance for students with special needs provides a picture of how services are provided for that group. Although we utilize almost two thirds of our buses to accommodate these students, most students use the large conventional school buses. The ride time and distance for students using this mode of transportation are highlighted below.

Conventional Bus One Way Travel Distance (KM) 2019-2020



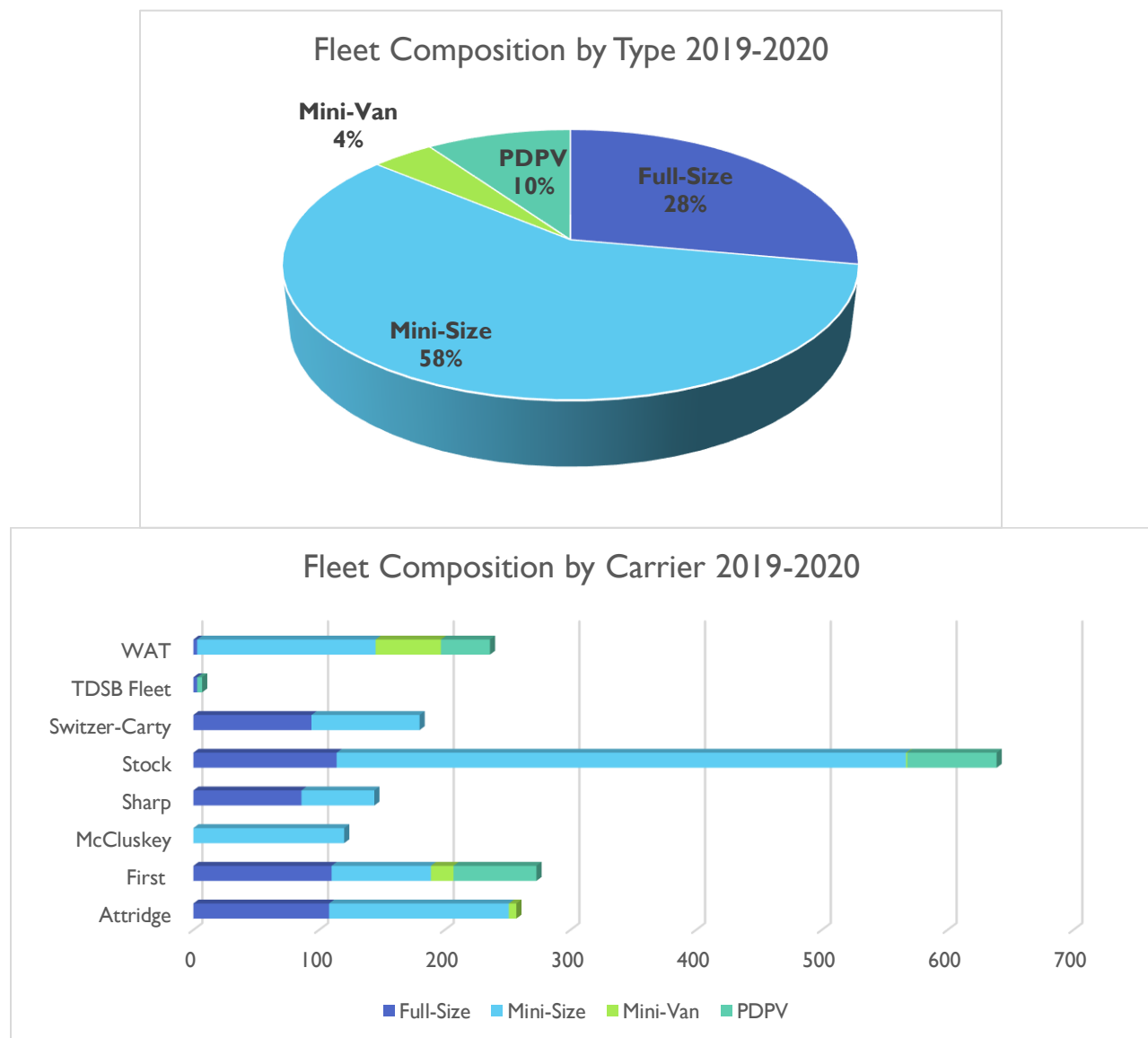
Conventional Bus One Way Travel Time (min) 2019-2020



Operators

The Toronto Student Transportation Group secures transportation through a competitive procurement process. The 2016-2017 school year was the first year of a new contract with a term of six years plus two one-year options. The following chart highlights the number of Operators by division that are providing service for the TSTG in 2019-2020.

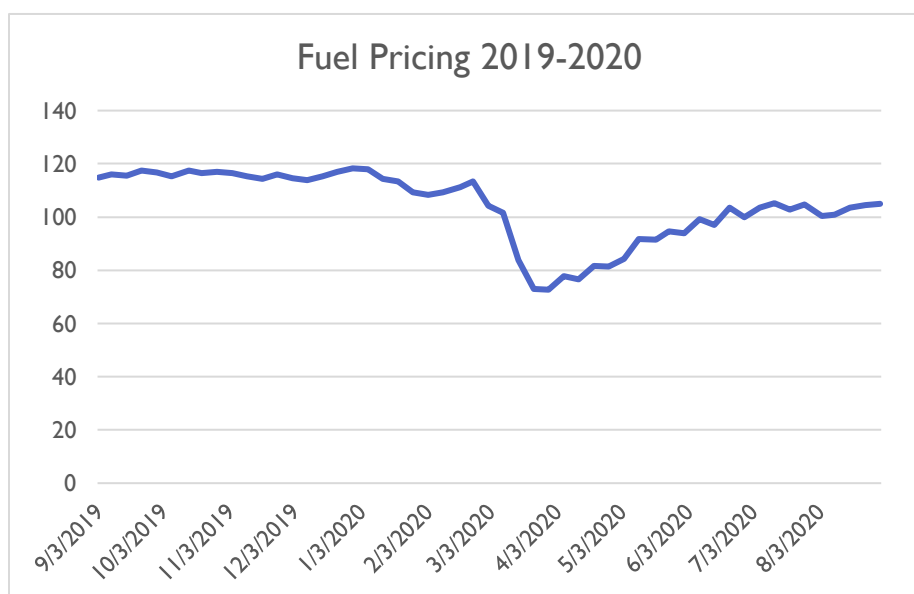
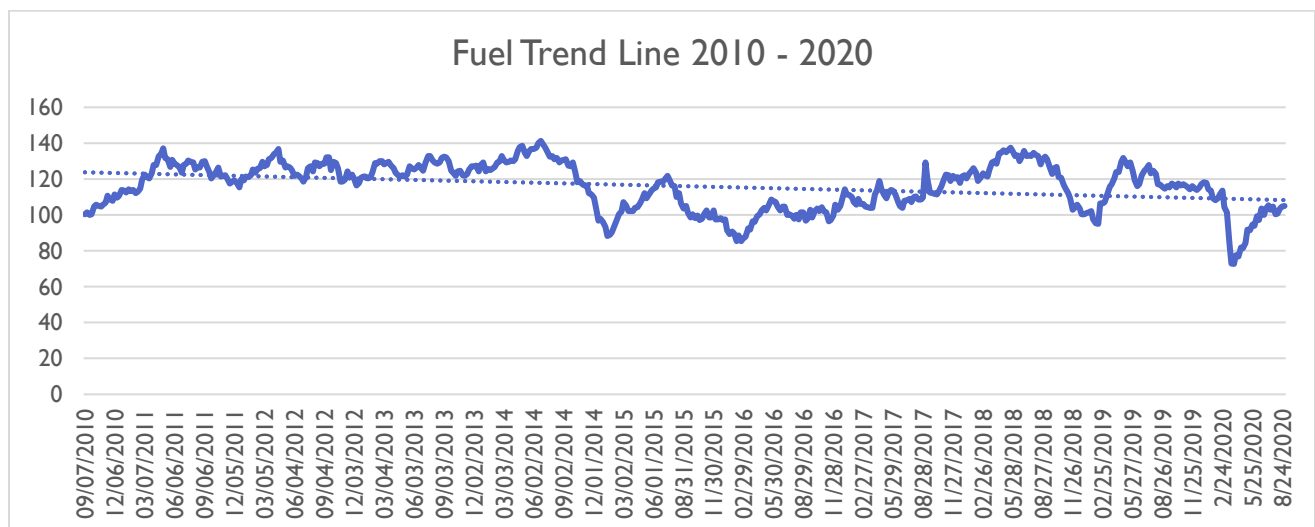
10. Breakdown of contracted fleet



Fuel

One of the most volatile and unpredictable elements to funding transportation services is the costing for fuel. Both gas and diesel type vehicles using various engines with different fuel economy travelling varying distances generate different costs to be funded. Perspective is everything. Looking at fuel trend line for the past ten years it shows a declining fuel trend. If we extended the time frame out over 20 years, we would see an increasing trend line. The following chart highlights the fuel costs over the years.

11. Fuel Trend over the last 10 years



Can you tell when Coronavirus hit North America? Fuel prices started to drop dramatically in early March down to their lowest point in the last 10 years.

Operator KPI

To monitor school bus operator performance a key performance indicator package is submitted by the operators to the Consortium each week. The statistics provide an overview of how well operations are proceeding at each individual division. In cases like below where 'open coverage' is positive, the department is aware of operational deficiencies at the division and can take steps to address the situation.

1. Key Performance Indicators used to track Operator contract compliance and performance.

Open Routes and Open Coverage provide us a snapshot view of our Operators ability to provide the service they have been contracted to provide. Although Open Routes refers to how many routes do not have a permanent driver the Operators are able to use spare drivers, as required by the contract, to cover off routes that are open due to driver illness or on a leave. Open Coverage is indicative of how well an Operator can provide services since it shows how many routes are run without a driver since the spare complement and driver book-off exceed the company's ability to cover the route. Anything positive in this area indicates a concern that the TSTG would need to address with the Operator. In these cases, some options include the removal of bus routes from an operator and/or additional financial penalties to ensure that service is provided as contracted or that the Boards receive remuneration for services that are not rendered.

Items highlighted in Orange and Blue indicated values that fell outside a standard deviation either above or below the average. Consortium staff use the information collected from the 'Key performance Indicators' to work with the carriers to address those concerns or where in a positive situation try to transfer the best practices to those carriers that may have struggled in these particular areas.

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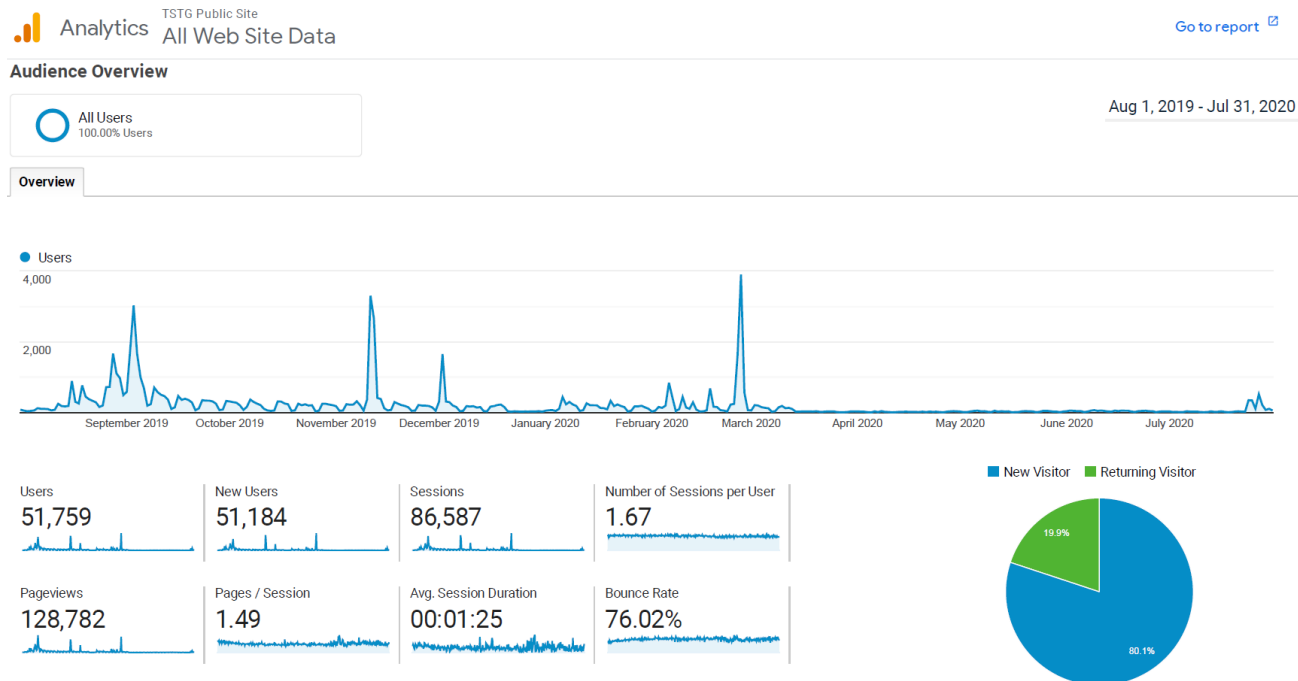


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Weekly Operator Status	FX	AT	MC	SH	SC	SN	ST	SY	SW	TD	FT	WA	Sys Avg
Total Number of Routes Servicing Toronto (AM/PM)	23	256	125	152	253	179	205	5	180	7	246	286	172.2
Total Number of Routes Servicing Toronto (Noon)	0	34	25	0	7	0	5	0	5	0	9	36	11.0
Grand Total Of Routes (Sum of two above)	23	290	150	152	260	179	210	5	185	7	255	322	183.2
Total number of weekly Trips	230	2560	1250	1520	1518	1074	2050	50	1800	70	2460	2860	1564.7
Open Routes - Yellow	0	0	0	2	2	2	6	0	0	0	1	5	1.6
Open Routes - Wheelchair	0	0	0	0	0	0	0	0	0	0	4	0	0.4
Open Routes - Mini Van	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Open Routes - (please specify each individual route below)	0	0	0	2	2	2	6	0	0	0	5	5	2.0
Open Routes (percentage of AM/PM routes)	0.0%	0.0%	0.0%	1.3%	0.8%	1.1%	2.9%	0.0%	0.0%	0.0%	2.0%	1.7%	0.9%
Number of drivers in training this week	2	4	4	7	4	3	4	2	2	0	3	3	3.3
Number of additional licensed drivers this week	0	1	0	2	2	4	2	1	2	0	1	2	1.5
Driver Turnover Accumulated	12	36	9	20	17	30	16	1	29	0	51	40	22.6
Driver Turnover weekly (percentage of am/pm routes)	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.6%	0%	0.4%	0.0%	
Driver Turnover Accumulated Annual %	0.0%	9.0%	11.4%	0.7%	3.2%	10.5%	4.8%	0.0%	9.0%	5.6%	10.2%	4.5%	0.1
Number of Collisions - Accumulated	2	20	4	14	7	10	16	0	15	2	25	1	
Number of Collisions reported in TRACS	0	0	4	0	1	0	0	0	0	0	0	0	45.5%
Number of Late Routes - Weather/traffic related	1	31	0	34	75	22	15	5	4	4	66	15	24.6
Number of Late Routes - Operational related	0	12	0	15	11	30	50	0	1	0	11	0	11.8
Number of Late Routes - Planning related	0	0	0	0	1	0	0	0	0	1	2	0	0.4
Number of Late Routes - School related	0	0	0	1	0	1	3	0	1	1	5	0	109.1%
Late Routes (as a percentage of am/pm routes)	0.4%	1.7%	0.0%	3.2%	5.7%	4.8%	3.2%	16.7%	0.3%	0.3%	3.2%	0.5%	0.0
Number of Breakdowns - Accumulated	11	55	20	83	436	214	283	0	19	1	188	59	12345.5%
Number of Breakdowns (percentage of am/pm routes)	4.3%	0.0%	1.6%	2.6%	2.0%	0.6%	4.9%	0.0%	0.6%	14%	0.8%	0.0%	0.0
Number of spare drivers	3	11	8	8	11	10	10	2	3	3	10	0	6.9
Number of routes covered by taxi/subcontract	0	0	0	2	0	1	3	0	1	0	0	3	0.9
Number of other available drivers (only days when spare < routes)	0	3	3	0	8	4	0	0	20	0	25	0	5.7
Number of Split Routes Am	0	0	0	4	24	15	19	0	7	0	0	6	6.8
Number of Split Routes Pm	0	0	0	1	25	15	19	0	7	0	0	0	6.1
Total Number of Split Routes	0	0	0	5	49	30	38	0	14	0	0	6	12.9
Number of charters performed with school route buses	0	0	24	9	0	0	0	0	74	34	9	0	13.6
Number of spare vehicles	2	18	14	6	25	18	18	0	19	1	24	29	15.6
Number of book offs (last week total) AM	0	3	3	5	40	43	39	2	25	3	9	6	16.2
Number of book offs (last week total) Noon	0	0	2	0	0	0	0	0	0	0	1	1	0.4
Number of book offs (last week total) PM	0	2	3	2	43	44	40	3	25	2	10	6	1636.4%
Book Offs as a % of total routes	0.0%	0.2%	0.6%	0.3%	5.7%	6.1%	4.9%	15.0%	3.5%	43%	1.0%	0.5%	7.3%
Percentage of Spares (5% contract minimum)	13.0%	4.3%	6.4%	5.3%	4.3%	5.6%	4.9%	40.0%	1.7%	14%	4.1%	0.0%	0.1
Open Coverage	-15	-56	-40	-38	-10	-5	5	-5	-15	-5	-40	19	-1727.3%
1 standard deviation above average													
1 standard deviation below the average													

TSTG

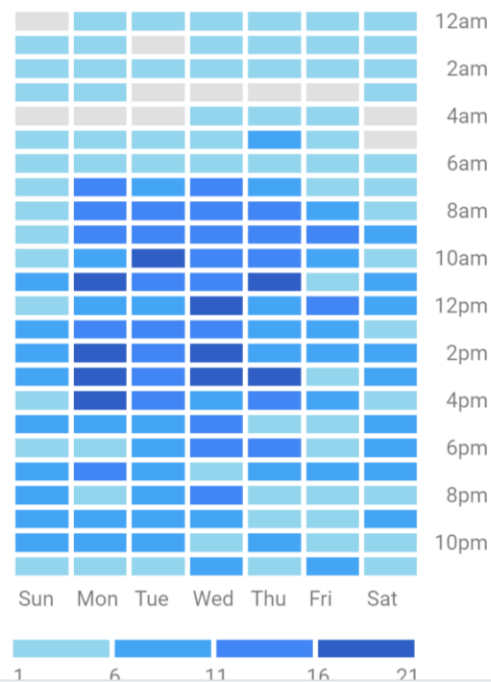
Web Site Visits: Communication is one of the key tools to ensure our stakeholders have accurate and timely information. Spikes in September are historically common as families look for transportation data for their children. Spikes during the winter can likely be identified as inclement weather days and families are reaching out to the website for updates on transportation and whether services are running or not. Surprisingly, eighty percent of visitors to the website are new users. Of primary concern is to ensure that our Operators have the necessary tools and means to minimize school bus delays and as a secondary measure to ensure that we have the communication tools available to notify our communities when those delays are unavoidable.



Based on the data below we have visitors to the Transportation website around the clock. This may be a result of individuals from outside of Canada who are reviewing transportation data. Of significance below is that almost 40% of people are accessing the site via a mobile device so we need to ensure that our website is mobile friendly.

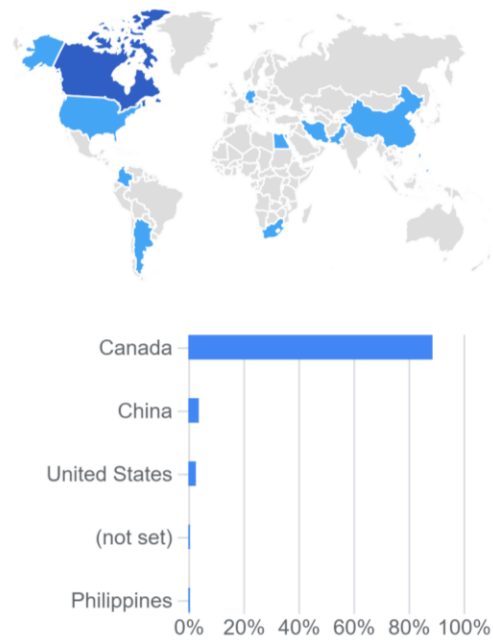
When do your users visit?

Users by time of day



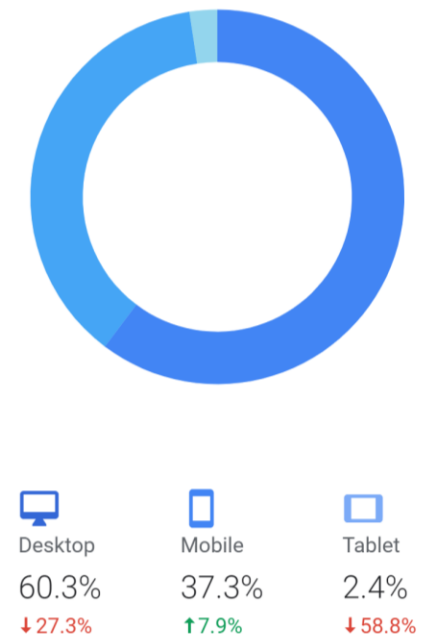
Where are your users?

Sessions by country



What are your top devices?

Sessions by device



Transportation Planning

The transportation-planning unit is responsible for the design and maintenance of the school bus routes. To create an effective and efficient transportation system staff utilize GIS based technology to schedule and move students and buses throughout the City of Toronto. The strategic stratification of bell times in conjunction with the optimization of bus runs lays the foundation to increase the level of service provided to our families while minimizing costs.

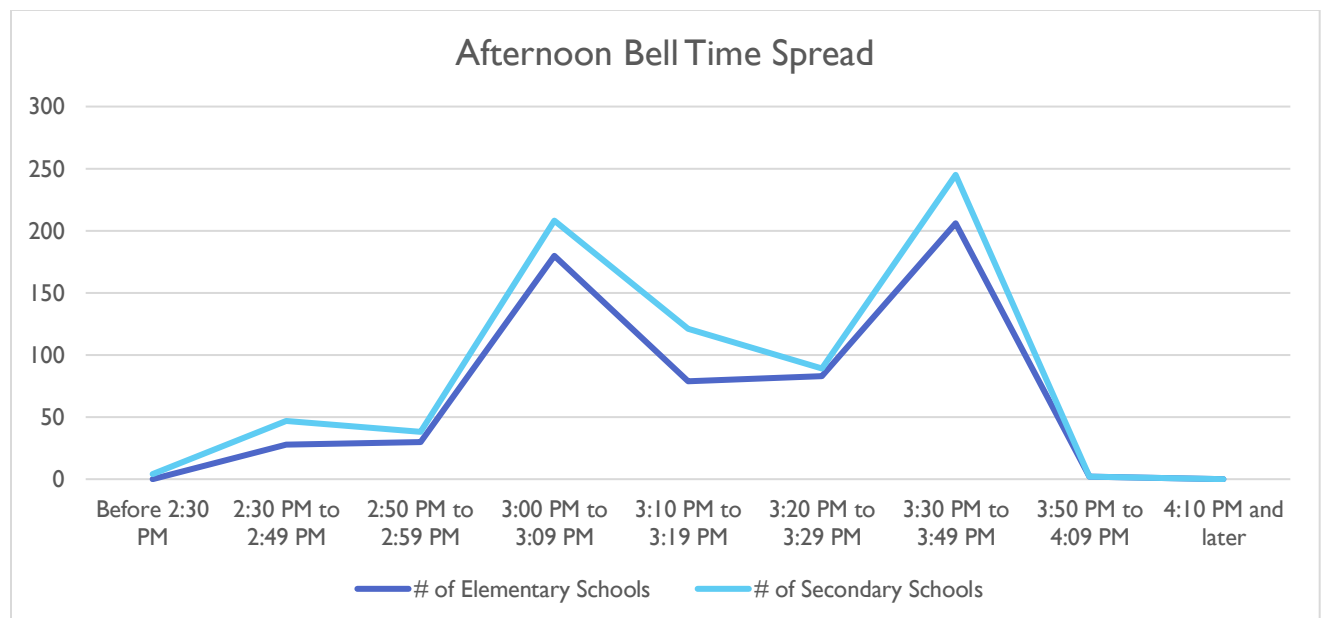
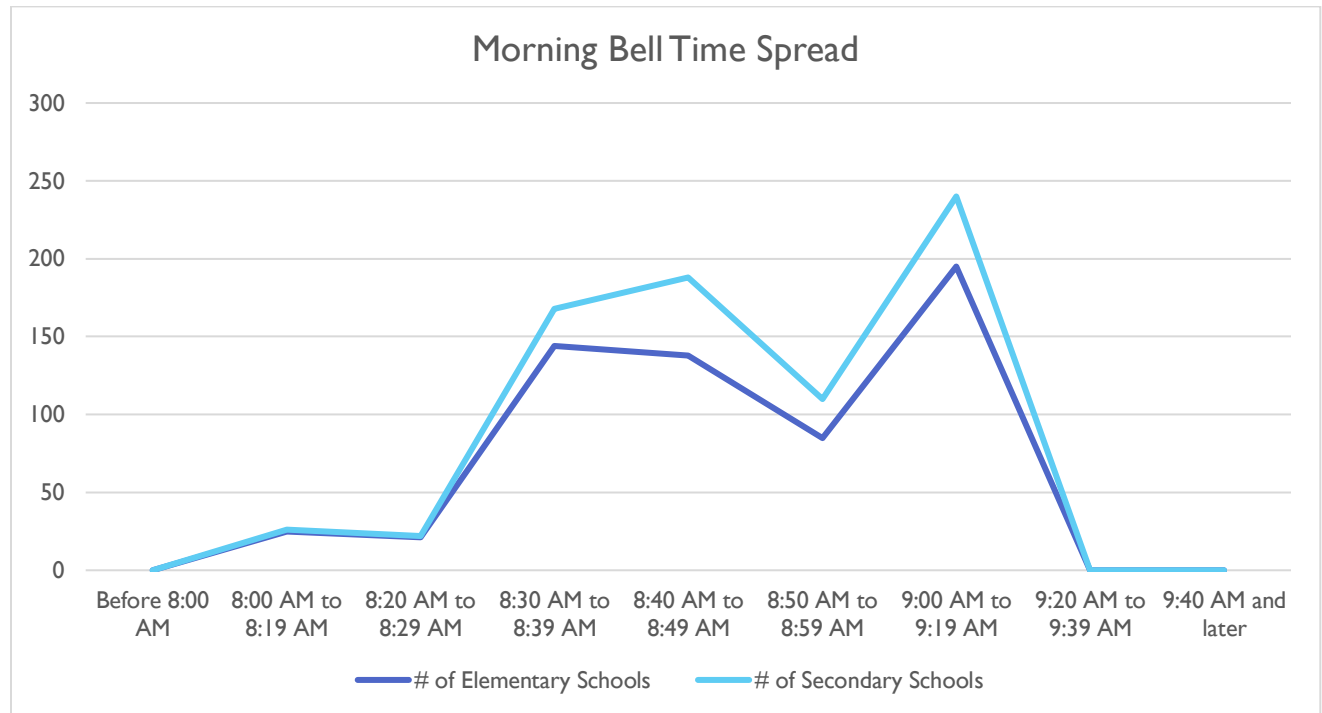
Bell Times

One of the core planning attributes to creating a successful transportation system is the ability to manage and stagger school bell times. The staggering of bell times allows for the coupling of bus runs thereby reducing the number of buses required. The TSTG has input on school bell times, however, the ultimate decision rests with the school/senior management team. A snapshot of bell times highlighted below shows the current am staggering of buses throughout the city. Clearly, strategic staggering of bell times would offer further savings to the Schools Boards as the current times are closely clustered together.

2. Bell time stratification for Toronto schools

AM Range	# of Elementary Schools	# of Secondary Schools	Total	PM Range	# of Elementary Schools	# of Secondary Schools	Total
Before 8:00 AM	0	0	0	Before 2:30 PM	0	4	4
8:00 AM to 8:19 AM	25	1	26	2:30 PM to 2:49 PM	28	19	47
8:20 AM to 8:29 AM	21	1	22	2:50 PM to 2:59 PM	30	8	38
8:30 AM to 8:39 AM	144	24	168	3:00 PM to 3:09 PM	180	28	208
8:40 AM to 8:49 AM	138	50	188	3:10 PM to 3:19 PM	79	42	121
8:50 AM to 8:59 AM	85	25	110	3:20 PM to 3:29 PM	83	6	89
9:00 AM to 9:19 AM	195	45	240	3:30 PM to 3:49 PM	206	39	245
9:20 AM to 9:39 AM	0	0	0	3:50 PM to 4:09 PM	2	0	2
9:40 AM and later	0	0	0	4:10 PM and later	0	0	0
Total # of Schools	608	146	754	Total # of Schools	608	146	754

3. Bell Time Distribution

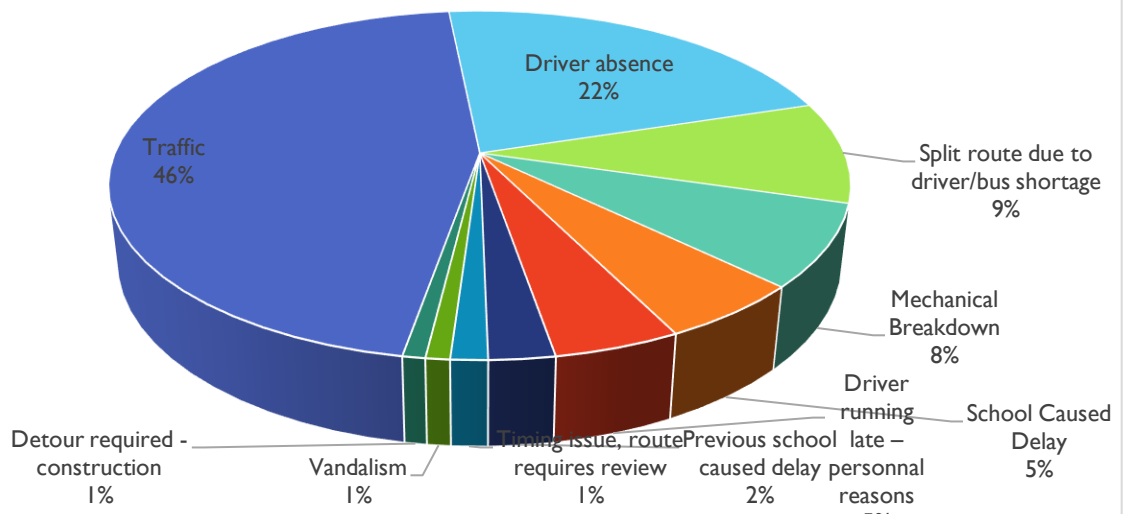


Service Delivery

4. Delay Portal

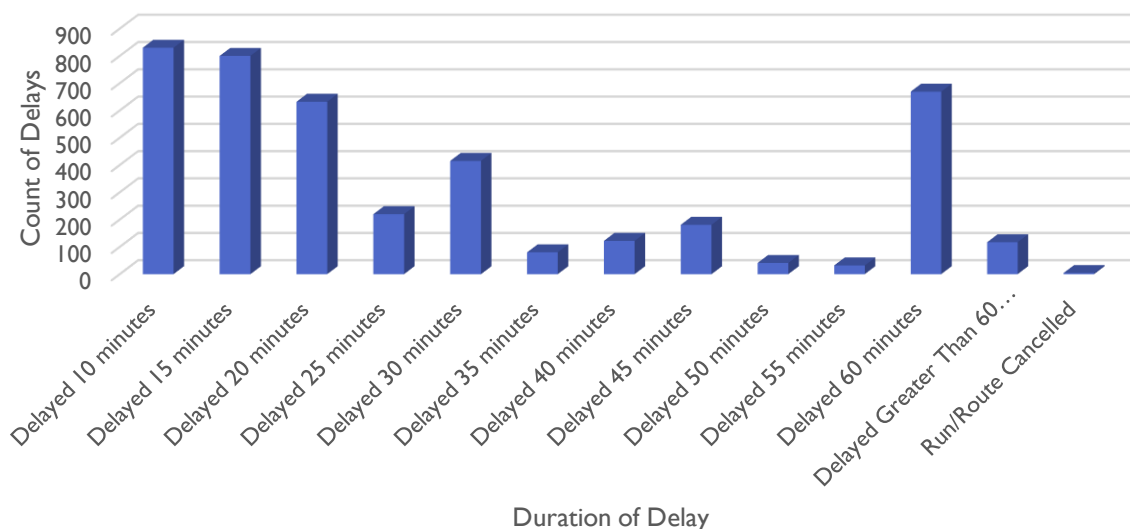
Traffic remains the number one culprit when it comes to school bus delays but operational delays resulting from driver absences, split routes, and mechanical issues remain a concern.

Top Ten Reasons for School Bus Delays September 2019



Although most delays are kept to 30 minutes there was a large number of routes that were delayed up to 60 minutes in September.

Bus Delays in September 2019



Safety

One of the primary conditions for the transportation of students is that they are provided a safe trip to and from school. A dedicated safety officer oversees the deployment of various school bus safety programs, ensures schools and bus operators are following proper school bus safety practices, and audits runs and routes to ensure drivers have the proper qualifications and are following routes as planned.

School Bus Safety Program

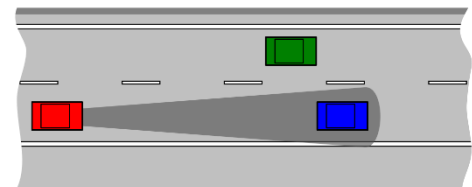


The Toronto Student Transportation Group provides several transportation safety programs to educate our students, families, and the general motoring public. A new program delivered by Intertrain using interactive media to help promote the school bus safety message with our students.

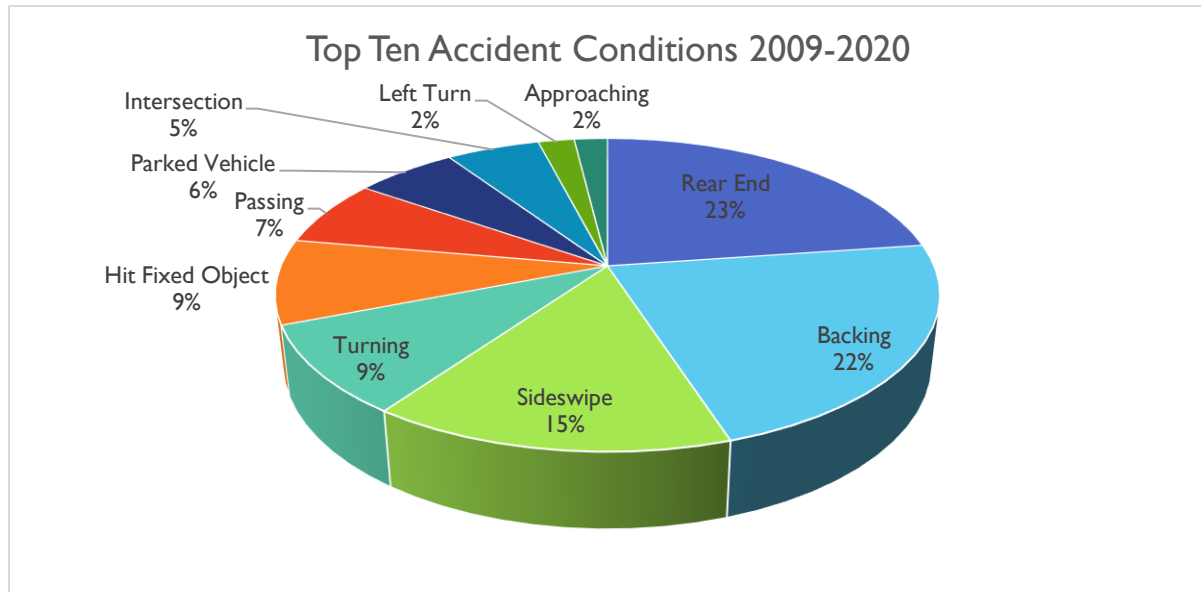
Accident Statistics

School bus accident statistics provide an insight into the type of accidents taking place on the road along with the conditions from which these accidents take place. The reduction of accidents and improving the safety of students in and around the school bus can be achieved through the review of accident statistics.

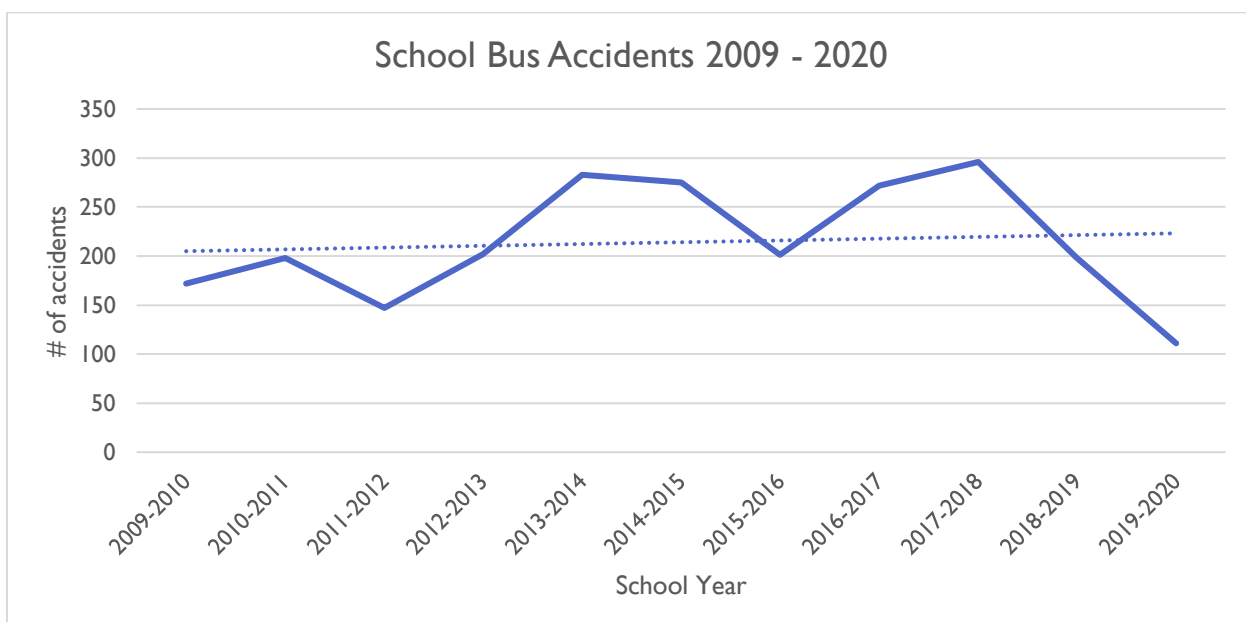
- Based on data highlighted below the trend for school bus accidents is on the rise; however, over the last three years it has seen an up and down variance year over year. The 2019-2020 data is significantly down because of buses only running till the March break before the transportation system was shut down due to Covid-19.
- New school bus technology like collision detection and automated braking systems are designed to further improve the safety of students while riding a school bus.



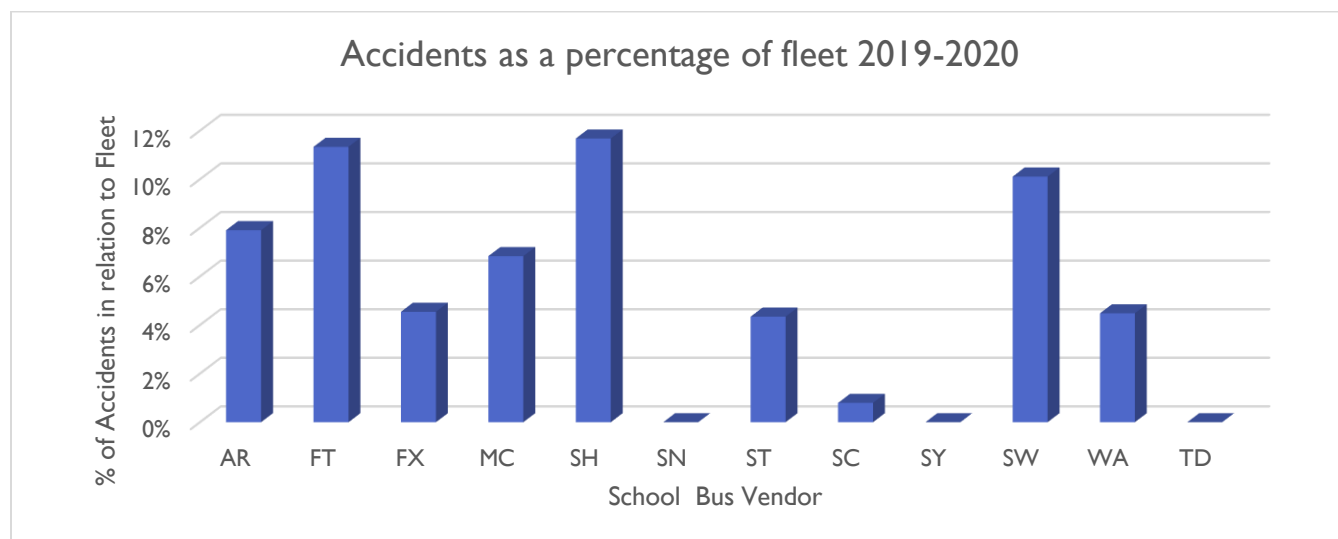
5. Conditions impacting school bus accidents.



6. Year over year summary of accident statistics



7. Accident Statistics by division



Incidents

In terms of dealing with behavioural or other small incidents on the school bus, a 'pink slip' system is used to communicate these issues to the school Principal so that they can be addressed. If a student continues to misbehave on the bus and they receive multiple pink slips the school Principal may remove the student from transportation for a defined period of time.

When something happens on the bus that is not considered a minor incident then the bus company will document the issue as an incident. This may include several issues including violence, vandalism, or some other act that needs immediate attention. Incidents on the school bus are trending higher as per the graph below and one of the reasons why recruitment of school bus drivers is becoming increasingly harder. Data in the 2014-2015 school year as reported by two carriers has created an anomaly within the dataset. It is likely that all incidents regardless of severity were reported in that year by these two carriers.

