

# 2016- 2017

## Toronto Student Transportation Group



## Annual Report

Prepared by the Toronto Student  
Transportation Group.

Providing Student Transportation Services for  
the Toronto District School Board and the  
Toronto Catholic District School Board

November 2017

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## 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.

The Toronto Boards have been competitively procuring student transportation services for over two decades but nothing prepared us for the start of the 2016-2017 school year. A massive school bus driver shortage caused mayhem for thousands of students not only in the city of Toronto but also across the province. Delays of over an hour and some buses not showing up altogether created significant service issues for many of our families. Some families endured several months of uncertainty in terms of what service the school bus companies were able to provide. Despite seeking out other service providers there were no school bus operators willing to take on any work in Toronto. This left some companies having to use 'limousine' service for some students to ensure they met their contractual obligations.

The consortium was also warned that there was a potential for a physical school bus shortage as well since school bus manufactures may not be able to deliver all the new units that were required in Toronto for school start. Luckily, this was mitigated to avoid any further service related issues for our families. Many families were impacted, however, by a freak afternoon snowstorm that brought Toronto traffic to stand still. Traffic delays and accidents held up buses with a couple of routes not delivering students home until near 10:00PM.

To further complicate the start of the new school year there was roof work on the transportation building during the summer that disrupted the normal planning routines for transportation staff. Due to the strong asphalt smell, all staff had to relocate their workspace to other facilities. This dispersion of staff made it difficult to get the planning work completed in a timely manner and ready for the school bus operators to collect their school bus routes for September. All of these events led to a very challenging start-up and school year.

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, appearing to read "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.



### Vision Statement

**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.

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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 49,000 students in more than 800 schools and centres throughout the City of Toronto. Six different school bus operators provide more than 1750 vehicles to provide transportation services for students with a budget of just over \$90,000,000.

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 2016 -2017 school year provided the Toronto Student Transportation Group with a number of challenges that not only provided obstacles but also opportunities to understand and improve the way we do business.

### Driver Shortage

With new contracts in hand and a considerable increase to the rates provided to our carriers the last thing the TSTG expected was a significant driver shortage to start the new school year. Up to a week prior to school starting all companies had indicated sufficient drivers for all routes allocated to their divisions. This quickly changed once the routes were distributed and companies started to indicate that drivers were not accepting some of the routes that were assigned to their divisions resulting in a 100-driver shortfall. Many carriers indicated that the 'mock routes' they received back in March did not match up with the routes received in August causing drivers to leave and look at other employers.



The TSTG worked with carriers to facilitate the swapping of bus runs between carriers to reduce that number down to 60 prior to school start. The 60 was consistent with previous years in terms of shortages as all companies have a pool of spare drivers to draw on to fill in for these 'open' routes and when drivers are off sick. The difference this year was that those 60 open routes were concentrated with three carriers and not evenly distributed through all 12 carriers providing service.

The first week invariably was stressful for schools and families dealing with buses that were extremely late or did not show up at all. Meetings with the three carriers that week resulted in action plans to remove buses from these carriers as well as have them option taxi service were application and sub contract with other travel operators to minimize disruption. The TSTG also 're-routed' some routes to get some of these students into school on time while minimizing the disruptions for others and creating a stable time schedule for those families if they were unable to get their children to school on time themselves.

The majority of the delays lasted several months for some students. Minor delays continued into the Christmas break. The TSTG attempted to seek out other school bus providers who would have been able to come in and provide service but there were no takers that could do so in a timely manner. As the school bus driver shortage impacted many of the surrounding School Boards as well there was a significant drain on applicants wanting to become school bus



drivers. Even with ten applicants coming into a training program, many companies were finding that only one or two would end up being a viable school bus driver. In a weeks span it was not uncommon to see three new drivers being hired but two drivers quitting that same week. Whether due to other employment or the current work environment there has been a constant exodus of drivers from the school bus driving pool. The new transportation contract also saw two new carriers enter the marketplace while many long standing drivers with established carriers who lost work decided to leave the marketplace rather than seek employment with different operators.

## Strike Averted

Common in the School bus industry is the fact that many school bus operations have unionized drivers. For the past two decades it seems that new contracts with unionized staff were dealt with in timely and equitable manner for all parties. In recent years there seems to be a rise in the number of contract negotiations that have required the need to invoke a call for a 'no board' report starting a clock on when negotiations need to be resolved before the unionized members can go on strike. Even more frustrating for parents and schools is the fact that these negotiations recently have went to the 11<sup>th</sup> hour or beyond creating a very small window to communicate with stakeholders.

In the summer of 2016, First Student Canada advised the TSTG that their unionized drivers at their Markham branch had applied for conciliation. This started an 81-day clock to continue



meetings and hopefully come to an agreement before the October 15<sup>th</sup>, 2016 deadline. The company also indicated the union would provide 72 hours notice ahead of time should they opt to go on strike once the 81-day clock has run out. This school bus division provided service for over 8000 students at 88 schools throughout the city of Toronto. No viable back up plan to mitigate the service disruption was

available given the large number of buses operated by this carrier and the fact that no other carriers in the area had any available drivers to perform the work.

Both the union and company negotiated past the 81-day mark but not seeing sufficient progress being made the union advised the company that they would strike on November 3, 2016 if a deal was not completed. Midnight on November 2<sup>nd</sup>, 2016 came and went without an agreement but the two parties were still at the table negotiating. Finally, in the wee hours

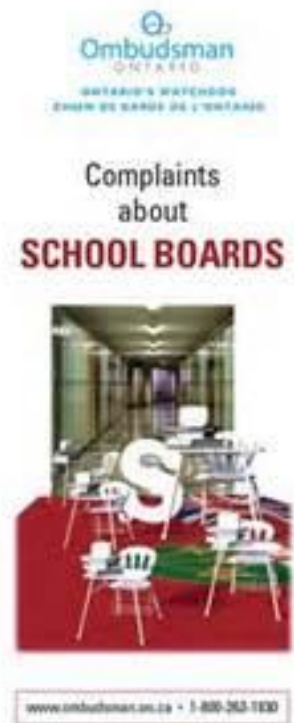


of the morning the two sides finally came to a tentative agreement avoiding any legal action. This did, however, cause a major rush to communicate out the decision to waiting students and parents early in the morning on whether service would be running that day or not. In the end, both sides came to an amiable solution with a contract lasting for several more years.

## Ombudsman Investigation

As noted above the severe school bus shortage had caught the attention of the Ontario Ombudsman who recently took ownership of oversight over publically funded School Boards. A number of complaints about school bus delays and service issues from parents around the GTA prompted the Ontario Ombudsman to start an investigation. The investigation was specific to the Toronto Boards even though the school bus driver shortage was identified to be a province wide problem. Through their investigation they documented 127 complaints, conducted 43 interviews, collected over 20+ gigabytes of data including over 55,000 e-mails and generated 42 recommendations.

Those forty-two recommendations can be broken down into six themes as follows: 1 Procurement and Contracts, 2 Consortium Organization and Human Resources, 3 Technology, 4 Communications, 5 Oversight, and 6 Operations. The School Boards accepted all 42 recommendations and the TSTG is working currently on addressing those issues. Some of those issues were already identified through the consortiums own review process of the challenges experienced throughout the start of the school year in 2016 and new procedures and timelines put in place to address for the 2017-2018 school year. The school bus operators who escaped the wrath of the Ombudsman have also committed to doing things differently to ensure they are able to deliver the services that they have contracted for. This included improving communication technologies and having more resources available to deal with schools and the public. They also committed more resources to ensure that there is a steady stream of applicants coming into their offices to support their pool of available drivers. The consortium will be providing an update to the Ontario Ombudsman every 6 months until they are confident that the issues identified in the report have been addressed and resources put in place to minimize future service delivery failures.



## **A Look Ahead**

While successfully transporting over 49,000 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.

### **Technology - Coming of Age**

With a significant transportation deficit, it is always difficult to go to leadership to ask for more money to improve services. Technology in the school bus industry has been expanding rapidly in the last few years and the Toronto Boards have been 'late to the party' to get the tools in place to not only help support the effective and efficient routing of school buses but the means to better communicate with our stakeholders.



GeoRef systems was awarded the contract to provide technology to replace older transportation management software. The new software is designed with more tools to allow staff to make better use of their time and provide logistical support for the planning team to ensure that our student's transportation needs are being met. Along with that, additional communication tools will be launched to

provide schools and parents better access to the buses that are servicing their schools. School bus delay notifications will no longer be isolated to e-mail but expanded to include text messages, RSS feeds, and applications to better communicate delays and service announcements to our school communities and families.

### **New Funding?**

That last formal funding formula used in Ontario was in 1998 and all funding for student transportation to date has flowed from that base. The Ministry attempted to launch a new funding formula in the mid 2000's but was cancelled after the first year of phasing in the new model. The Ministry then moved to effectiveness and efficiency reviews to act as a mechanism to fund deficit gaps. The funding of student transportation has been highlighted in both the 2000 and 2014 Auditor General's recommendations in regards to Student Transportation Services.



After the new contracts with operators in the 2016-2017 school year the transportation deficit in Toronto has doubled and stands now at over \$10M. Since there is no policy standard provided by the Ministry of Education the local School Boards are required to set their own transportation policies and use the funding received as they see fit. Both School Boards have had to take funds from other non-classroom funding envelopes to support the transportation level of service that each Board feels their stakeholders demand.

The Ministry of Education has indicated recently that they are pursuing a new funding model and that they will be working with stakeholders to develop a new formula.

## Taxi Review

One of the recommendations coming out of the Ombudsman report was to ensure better oversight of how taxi service is utilized in the course of student transportation services. Taxi service will be utilized for a couple of different reasons. One, a student does not live near the school and travel by any other means but a direct route would cause the student to be on the bus for more than an hour. In circumstances like these, the consortium will specifically assign the student to the taxi and that will be their primary mode of transportation for the duration of service to that location. Second, is when school bus operators are struggling with driver recruitment and require a short-term solution to ensure students are transported to and from school. In cases like this, the companies are to follow the protocols around using taxi service, which includes: no primary aged students should be transported via taxi (grade JK to grade 3), non-verbal students should not be placed in taxis, and that all taxi use must be pre-approved by the parent in order for the student to use the taxi.



The primary area of concern with the utilization of taxis by school bus operators, is the rational employed and timing of their usage. Until recently, the consortium relied on the school bus operator to manage their subcontract to the taxi company and ensure that service was delivered as expected. In order to ensure that the consortium has better oversight of taxi use we anticipate direct meetings with the taxi companies to review what information has been provided to them from the school bus operator and how they ensure that their drivers are meeting the needs of the students. This ongoing practice will help support our students to ensure safe and timely delivery of student transportation services.

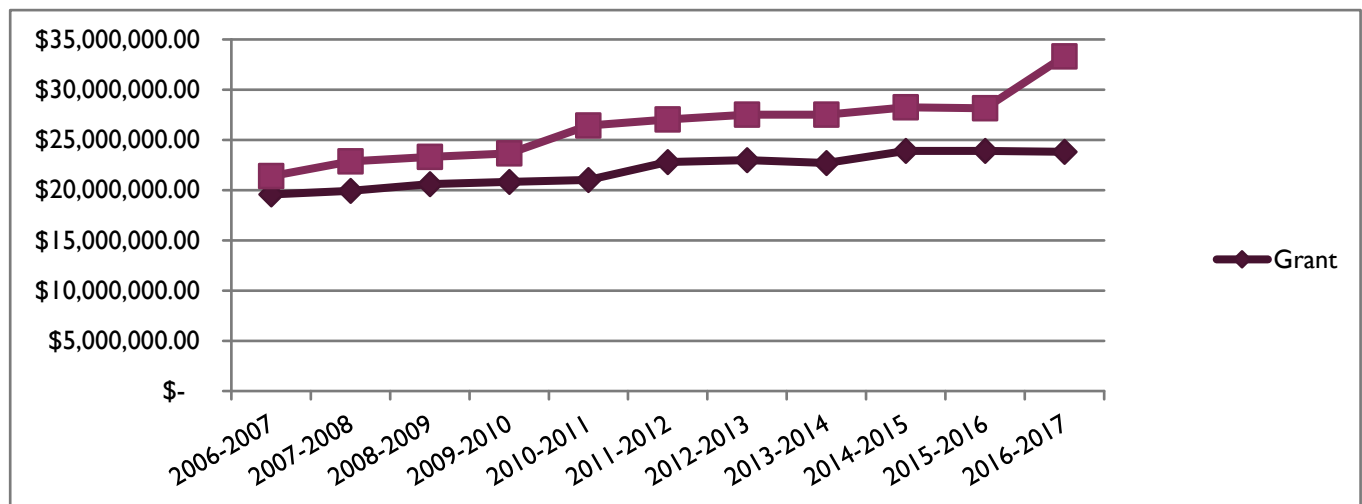
## Student Transportation Services

### Financial

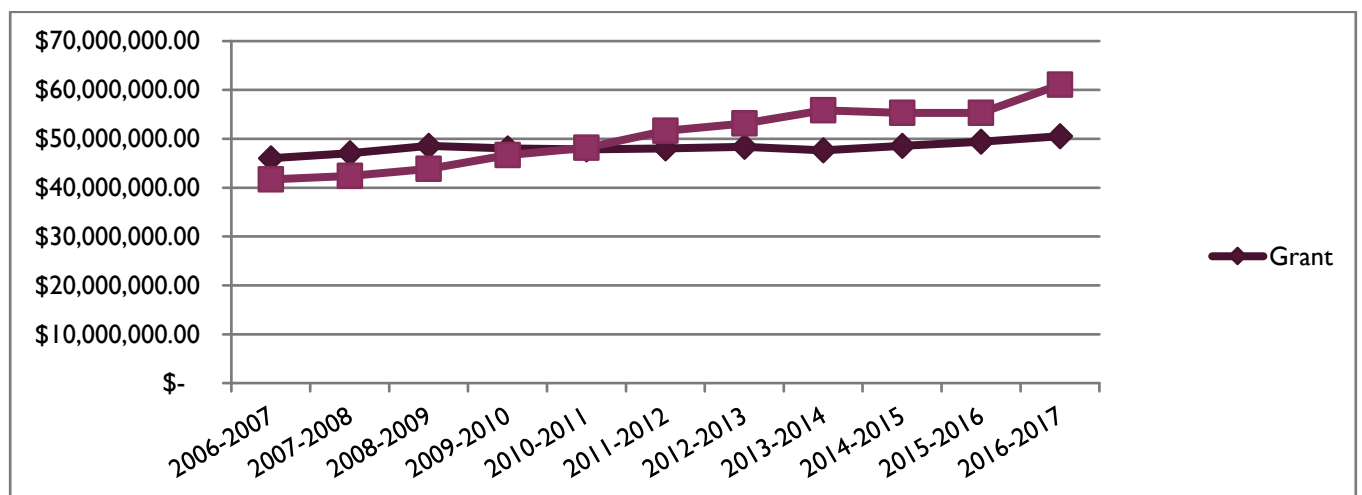
The Toronto Student Transportation Group currently spends about \$95,000,000 on transportation services for the TCDSB and TDSB. The Ministry of Education provided a transportation Grant in 2016-2017 of approximately \$23,800,000 for the TCDSB and \$50,500,000 for the TDSB. A breakdown of the transportation budget along with a historical summary of the Transportation Grant and Expenditure is displayed below:

#### 1. Historical Transportation Grant vs. Expenditure

##### TCDSB

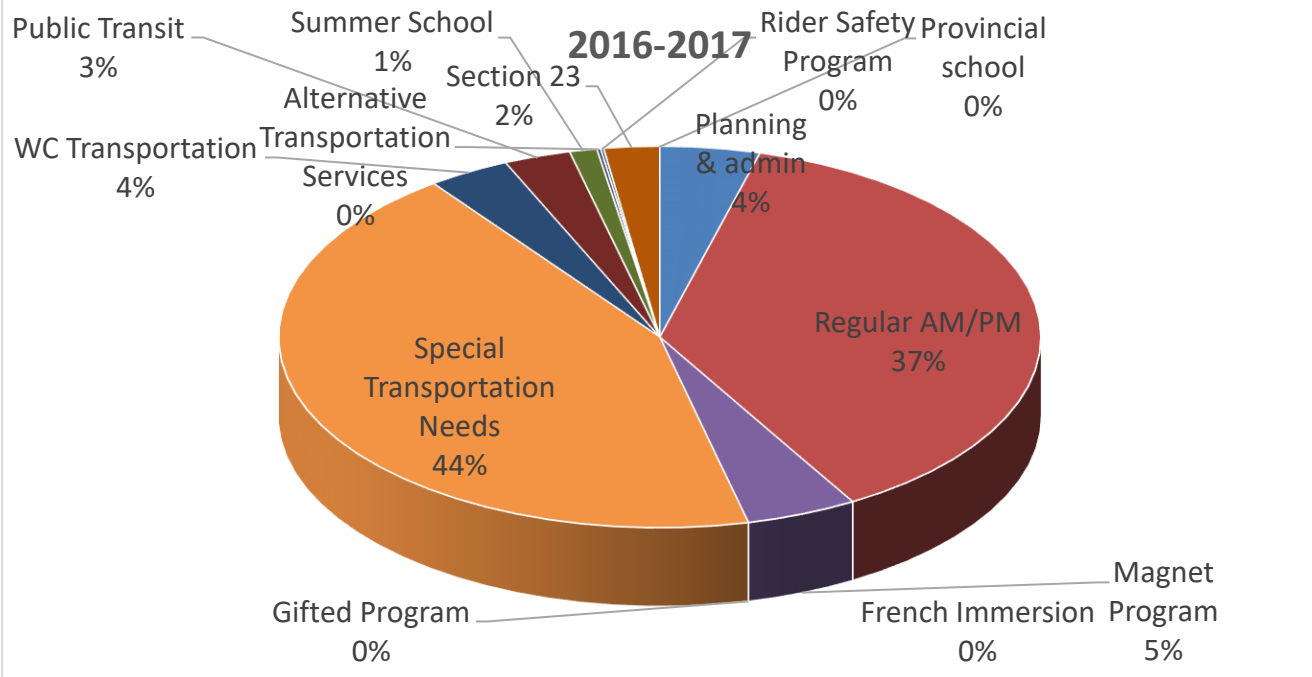


##### TDSB

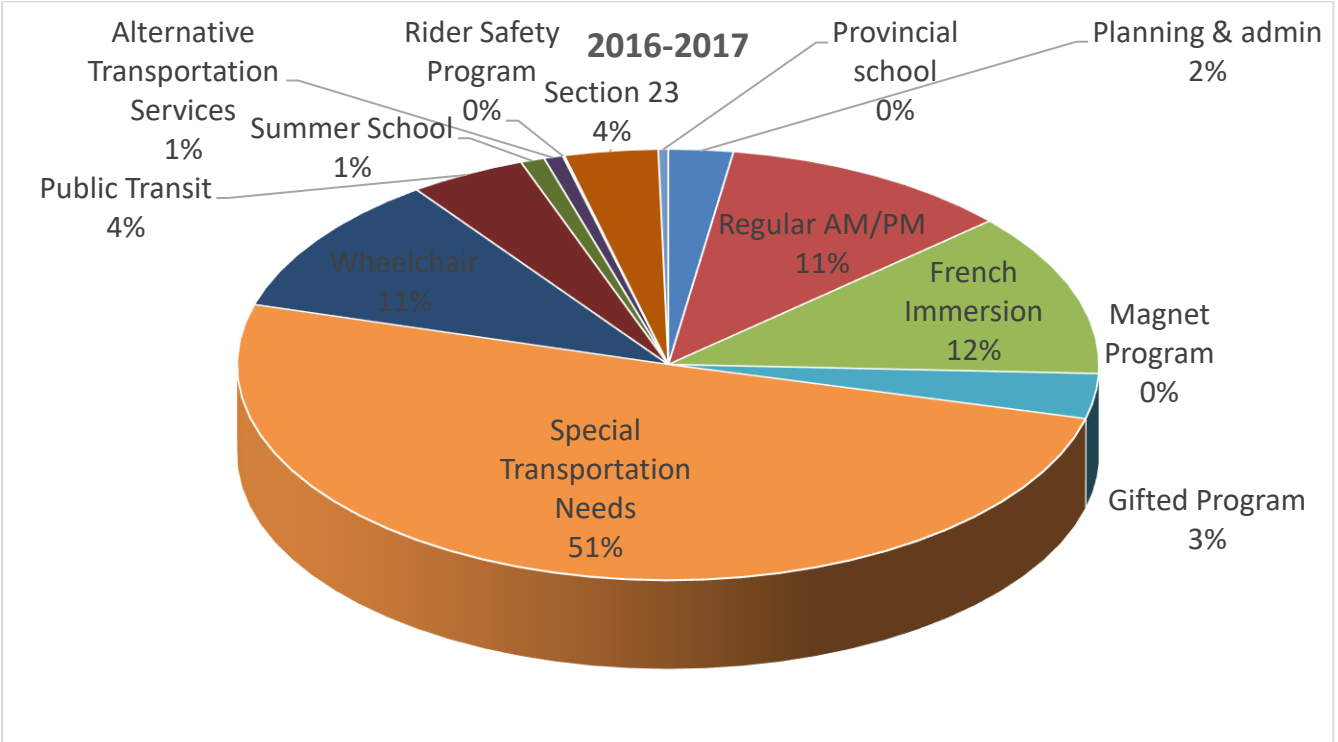


## 2. Transportation Expenditure by Area

TCDSB



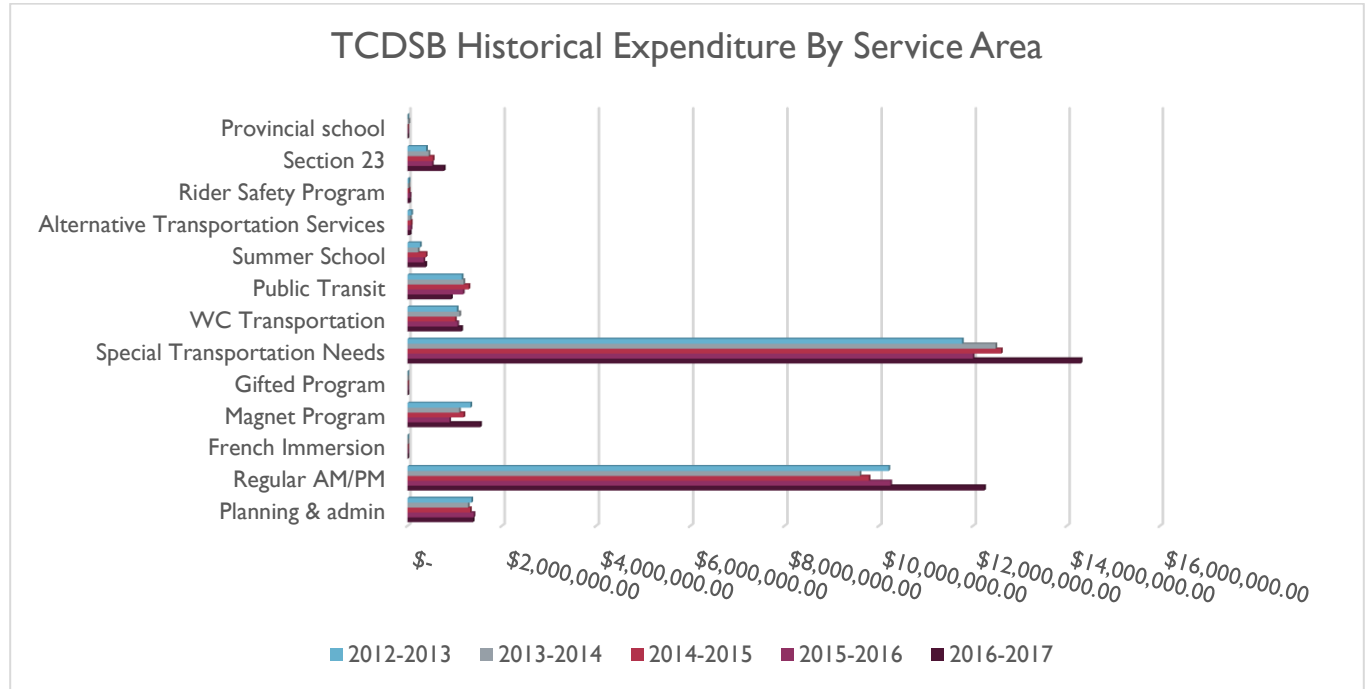
TDSB



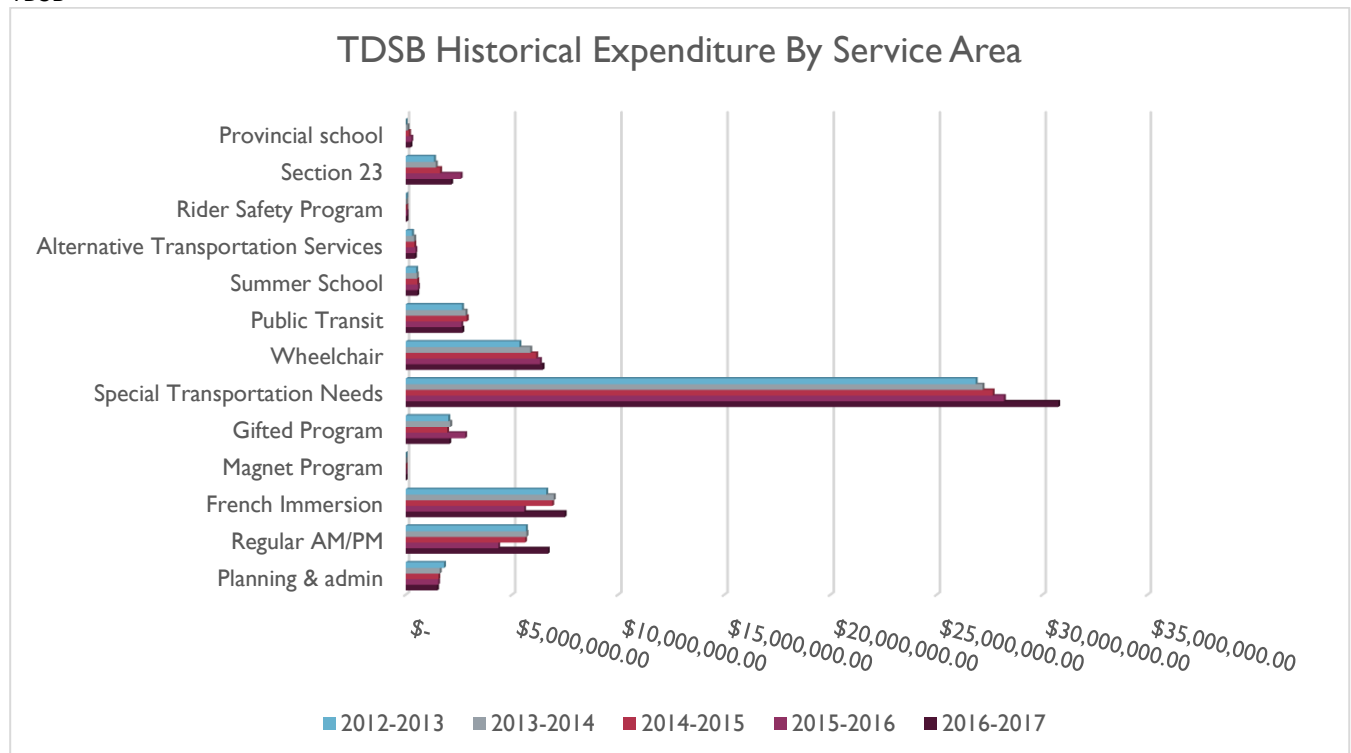


### 3. Historical Summary of Transportation Expenditure 2012 - 2017

#### TCDSB



#### TDSB



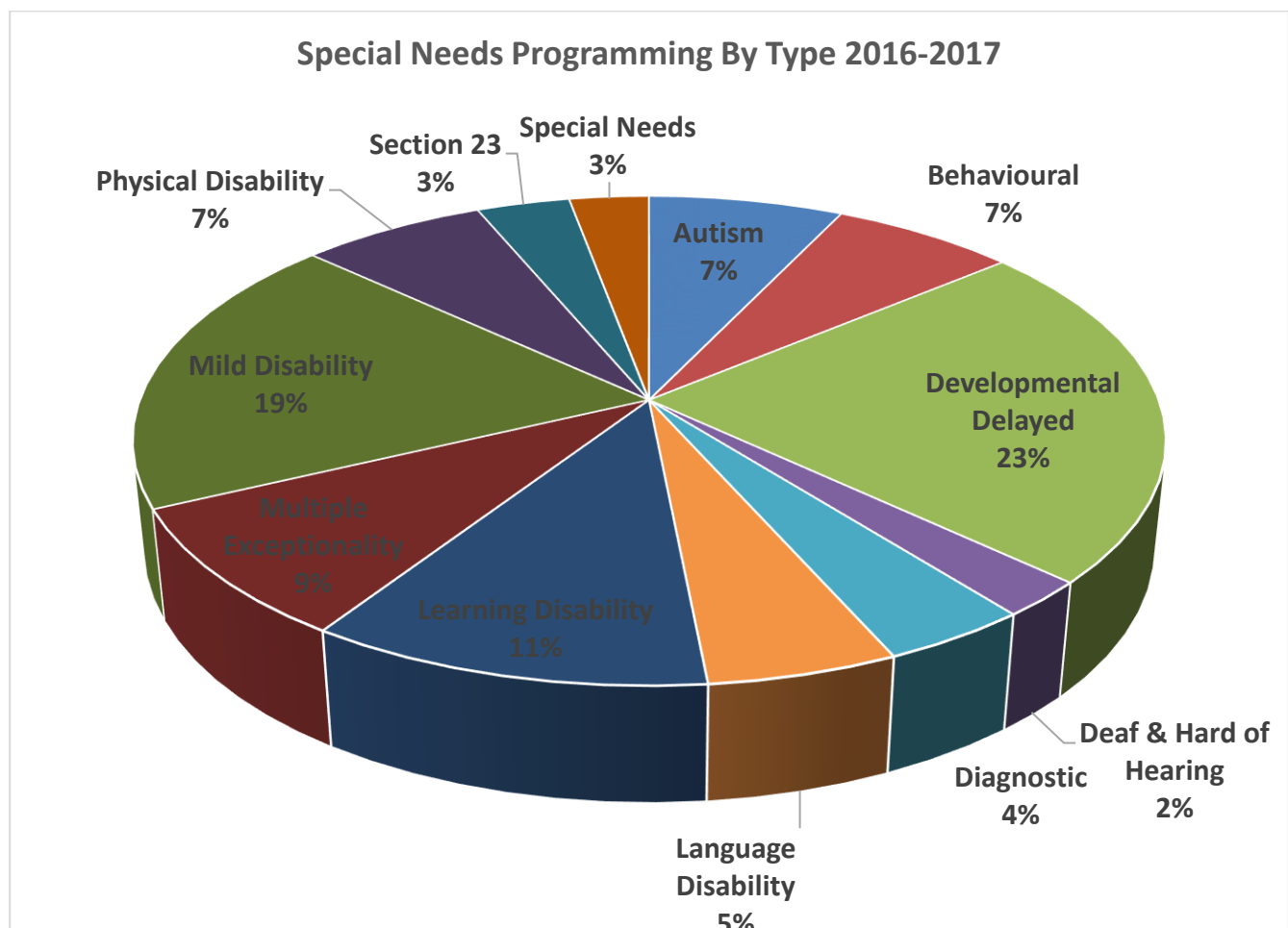
## Programming

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 special needs students. French Immersion, Gifted, and specialized withdrawal programs also contribute to the complexity involved in transporting students.

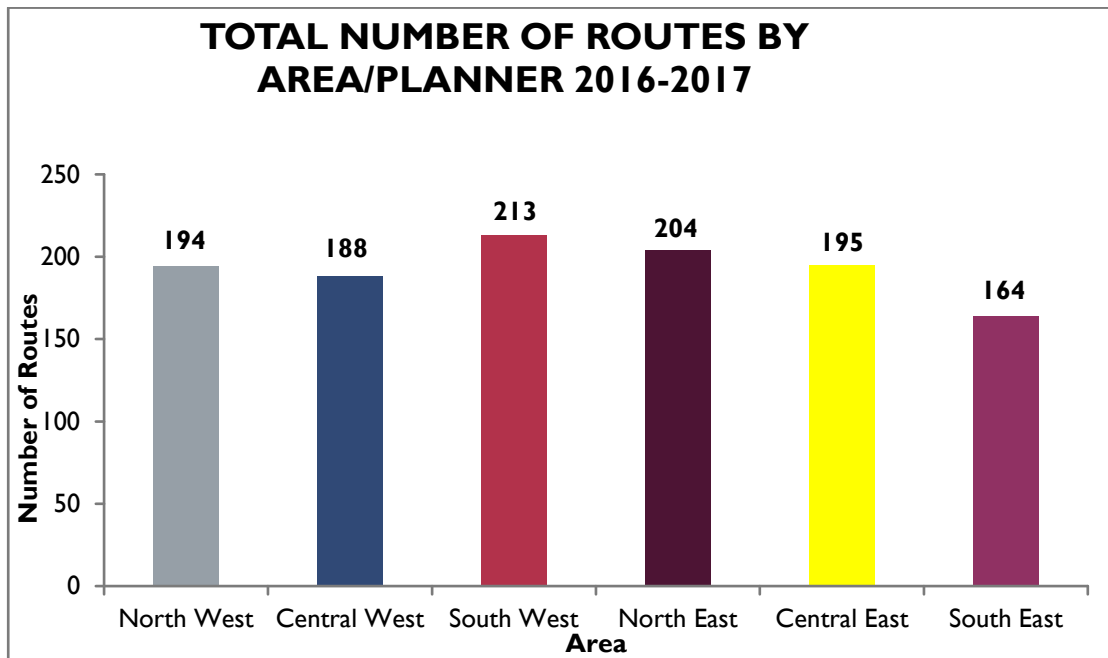
## Special Education

Transportation for special needs students 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.

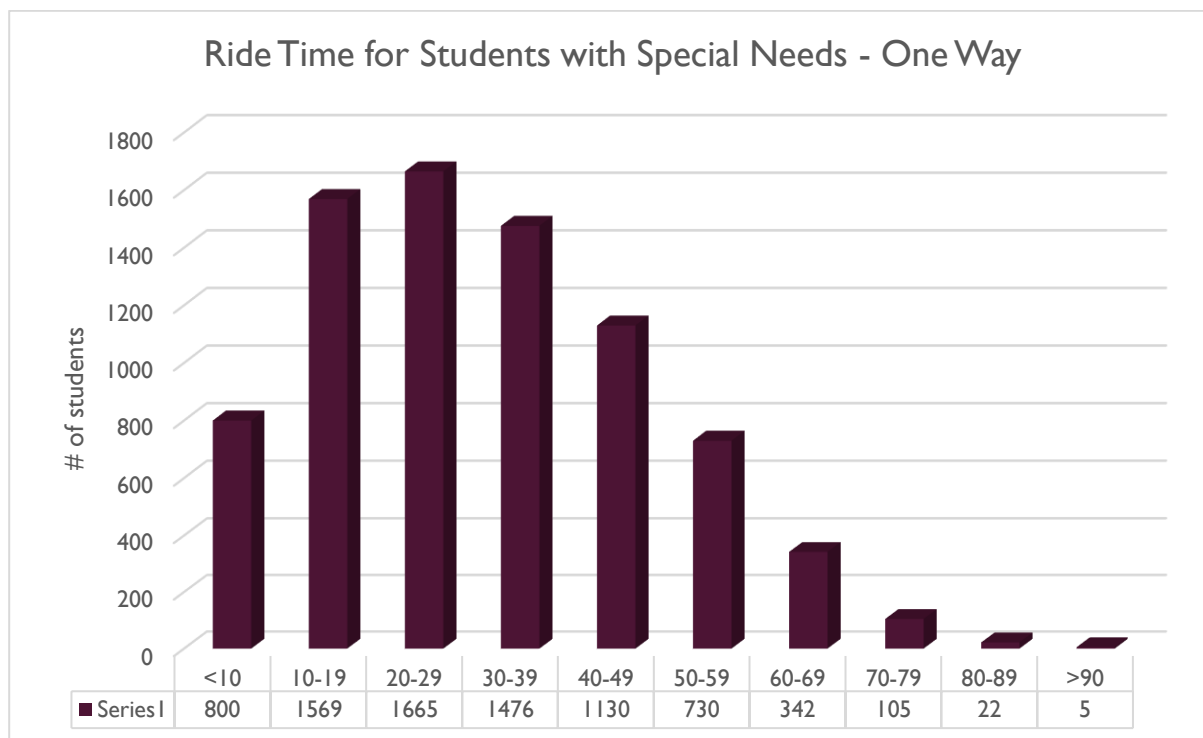
### 4. Transportation of special needs students by programming type



## 5. Breakdown of Sped routes by Area



## 6. Ride times for Students with Special Needs



## Operations

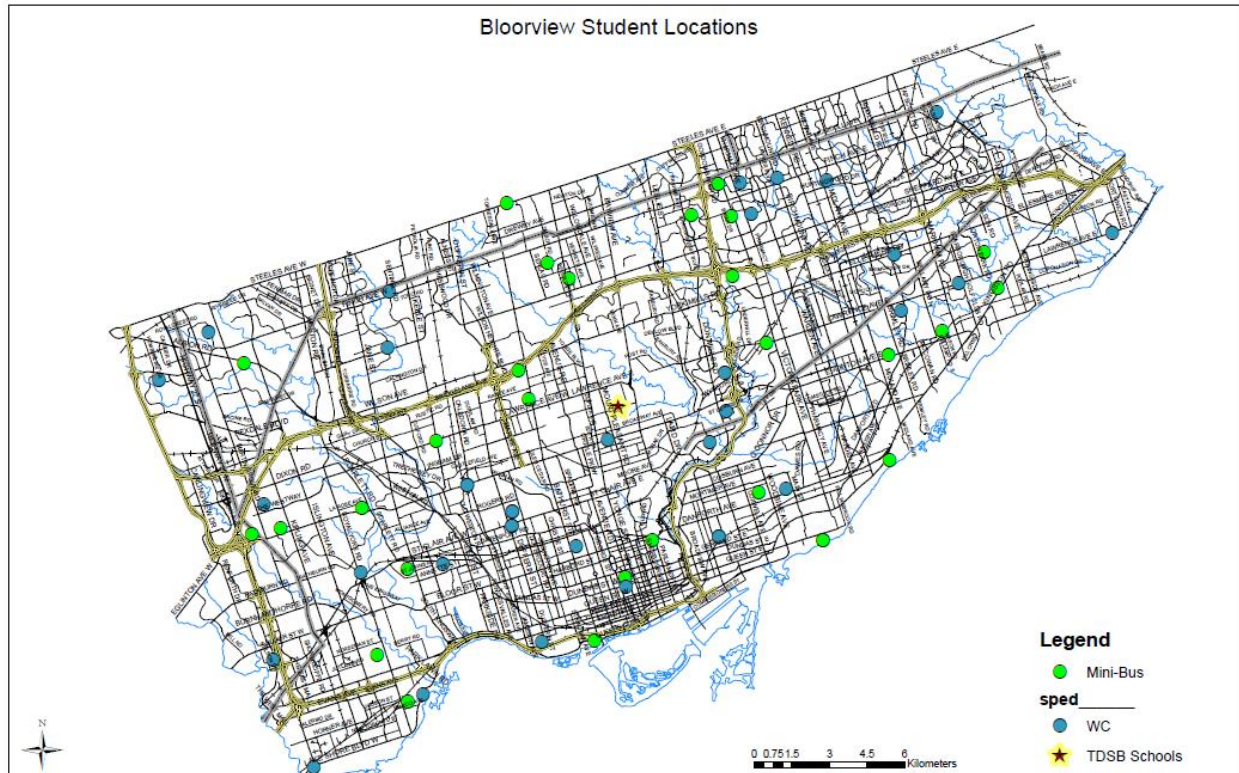
The transportation operations unit is responsible for the on-road delivery of transportation services. Staff facilitates the communication of planning changes, monitors school bus operations, evaluate operator qualifications and performance, and resolve operational problems. Operational staff uses a number of 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.

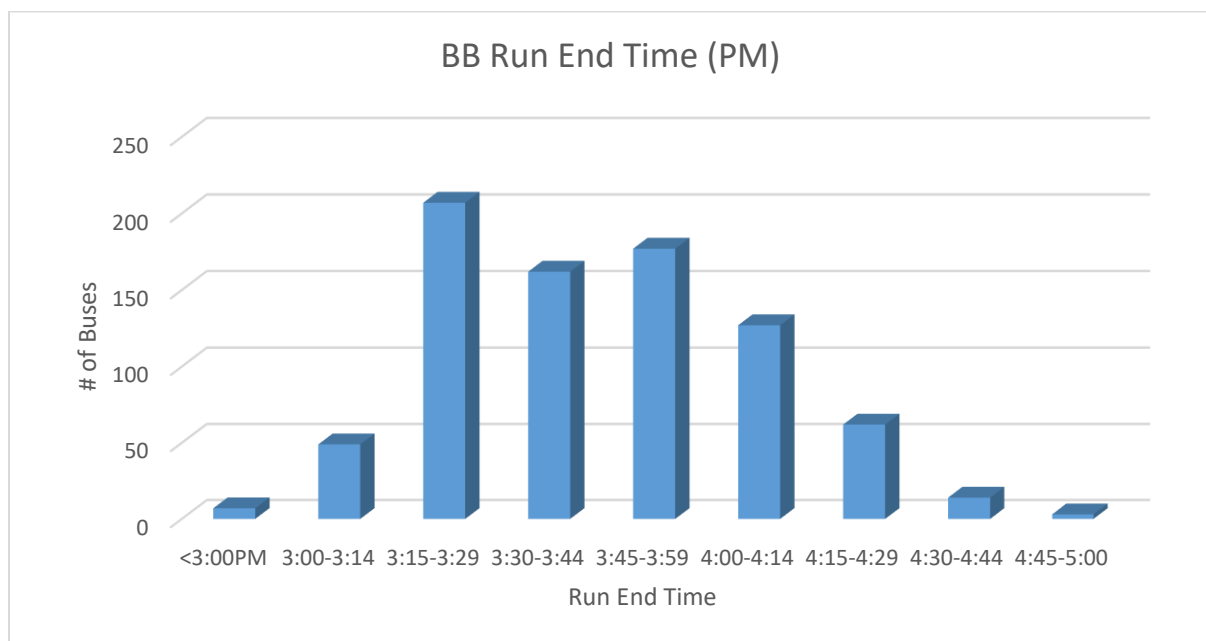
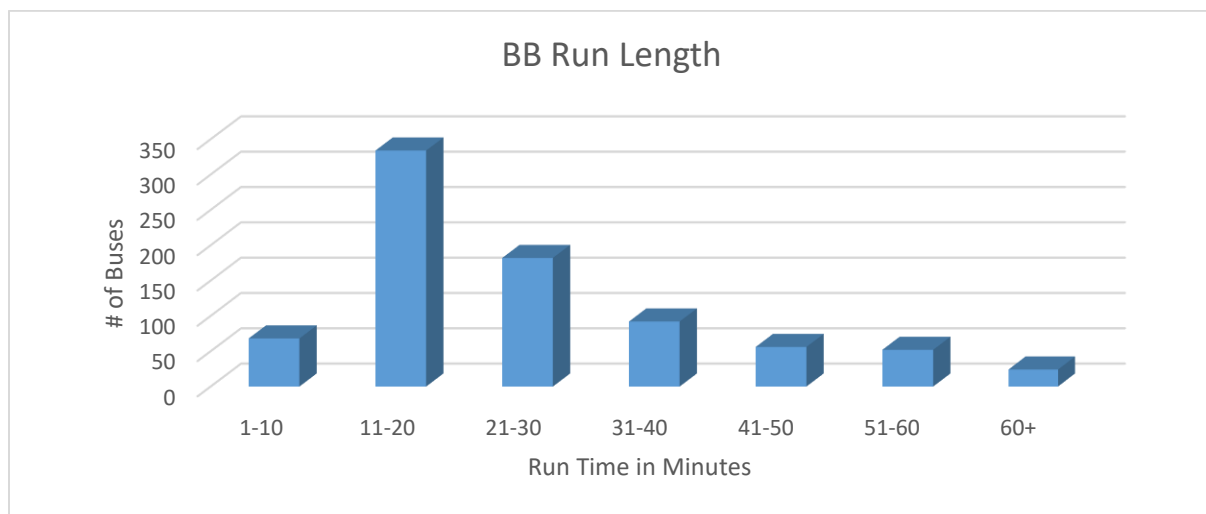
#### 7. GIS Mapping of student distribution

One of the challenges when creating school bus routes is the fact that some student populations are dispersed throughout the city. This leads to extended ride times for students and impacts the consortiums ability to maximize the use of the bus.



## 8. Service Level Indicators

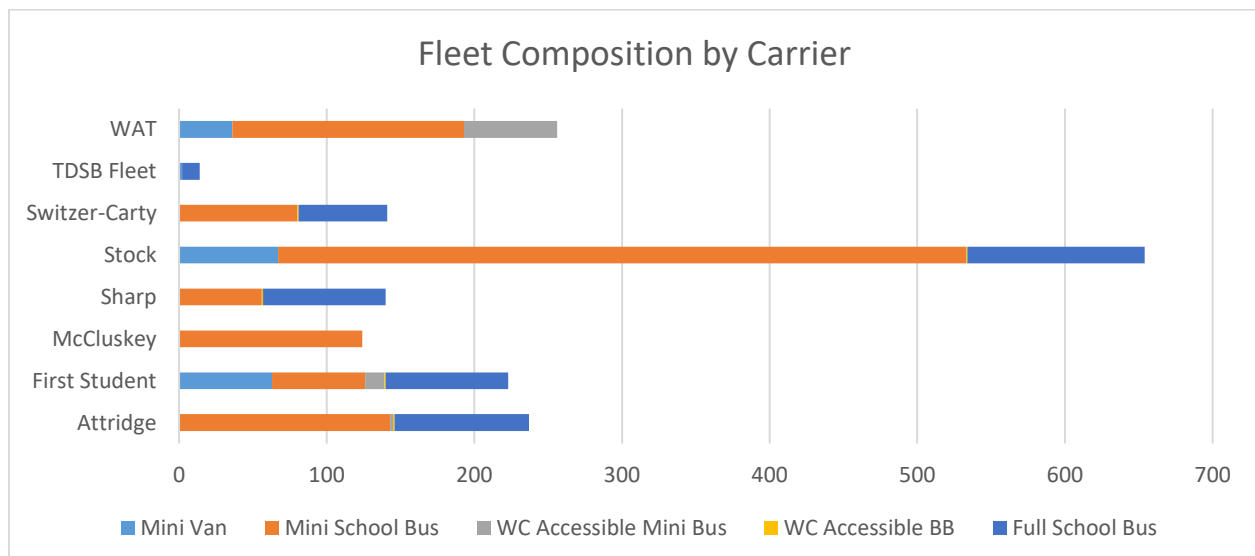
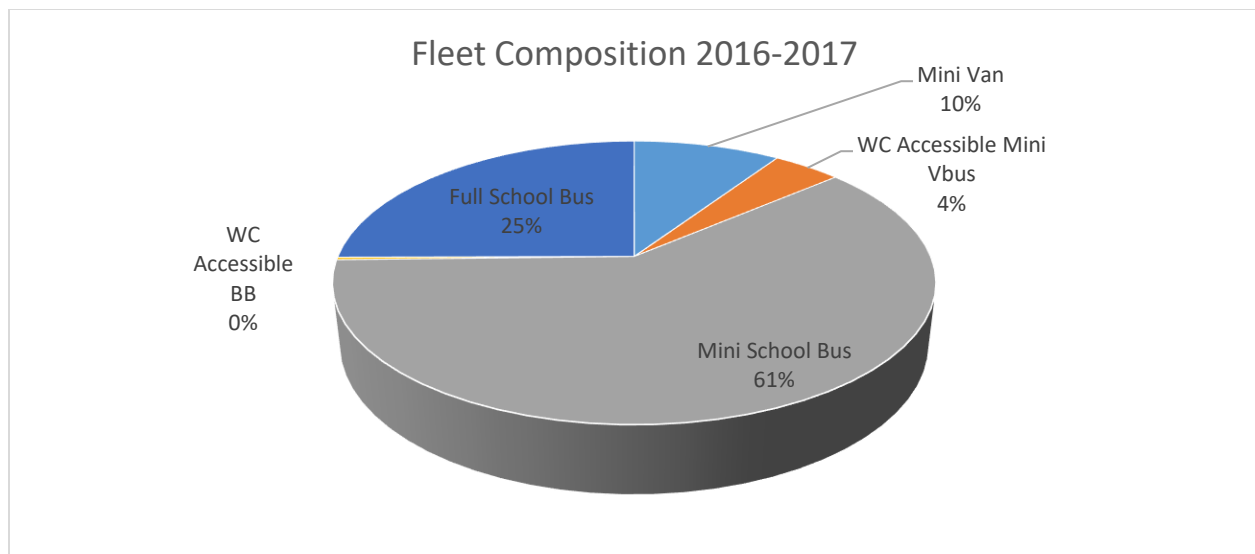
For large capacity buses the routing methodology that provides the most cost effective solution given the geography and student density is the coupling of runs. This means that bus runs will service one school community and then proceed out again to service another school community. This maximizes the use of the bus while improving the level of service for students.



## 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.

### 9. Breakdown of contracted fleet

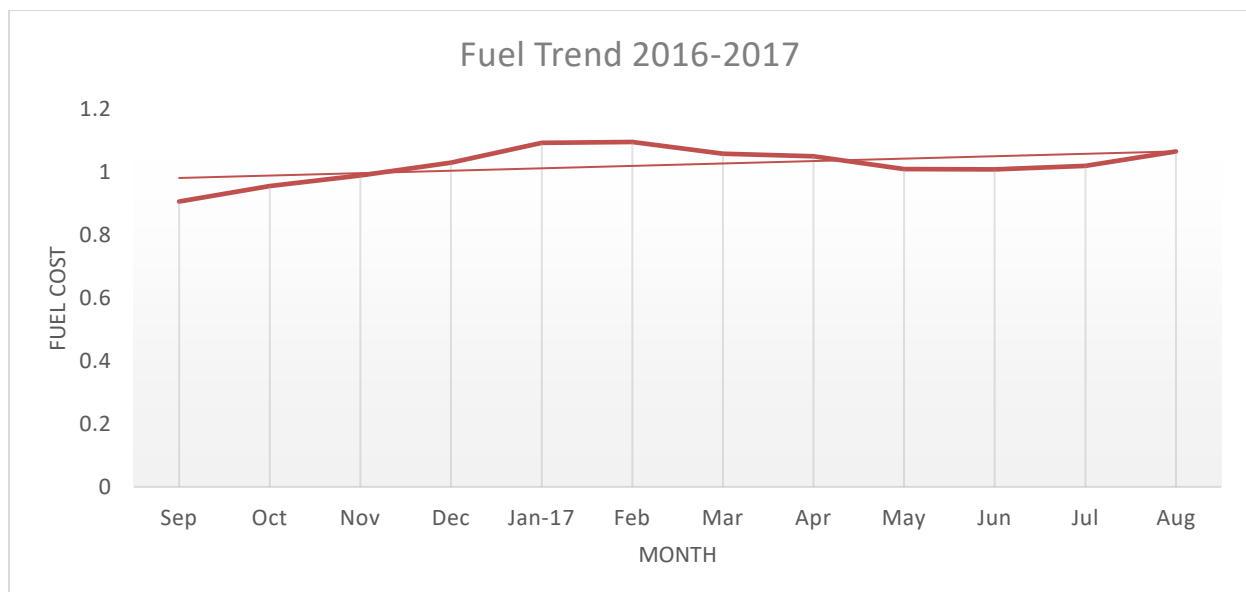
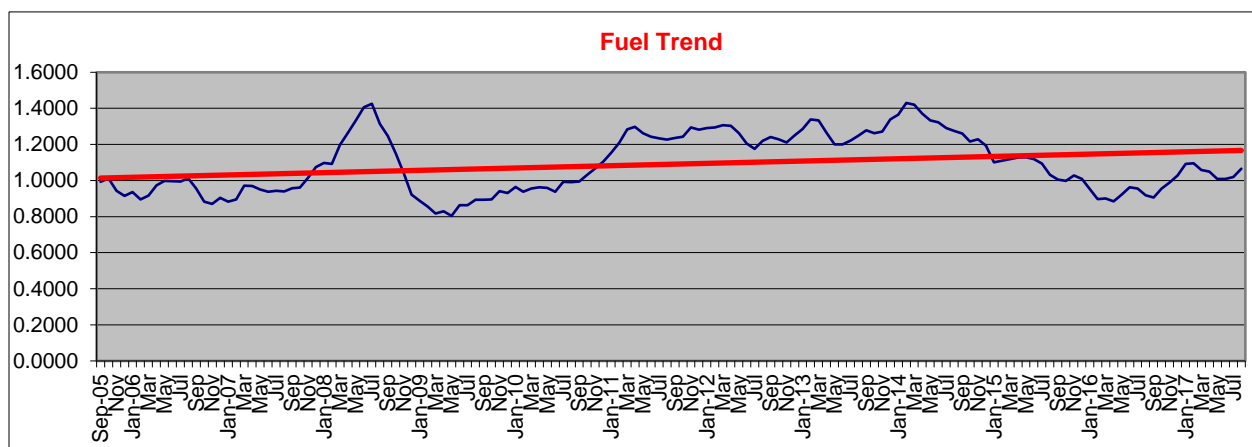




## Fuel

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. Although the trend over the last 5 years has shown a slow and steady increase, the yearly variances have been dramatic. Specifically, the fuel prices from January of 2016 are trending higher after a steady decrease the previous two years. The following chart highlights the fuel costs over the years.

10. Fuel Trend over the last 16 years



## Operator KPI

As a means 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.

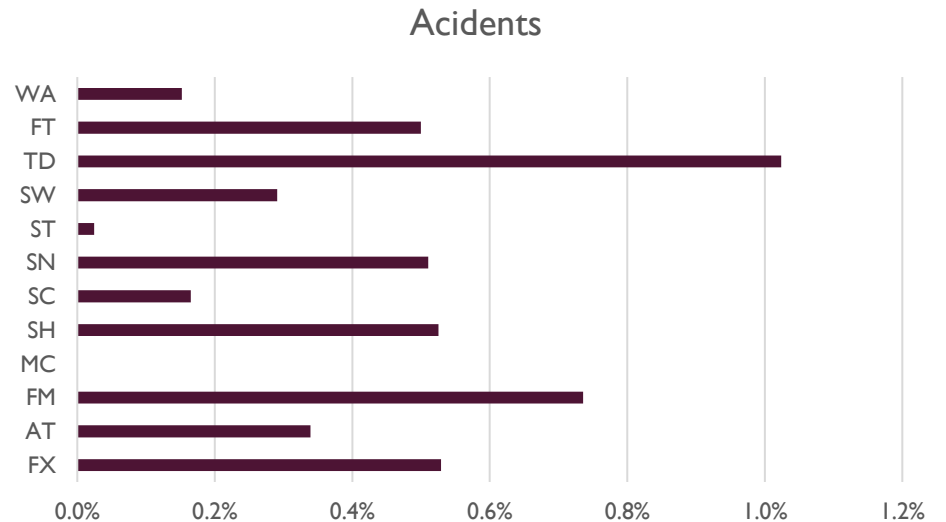
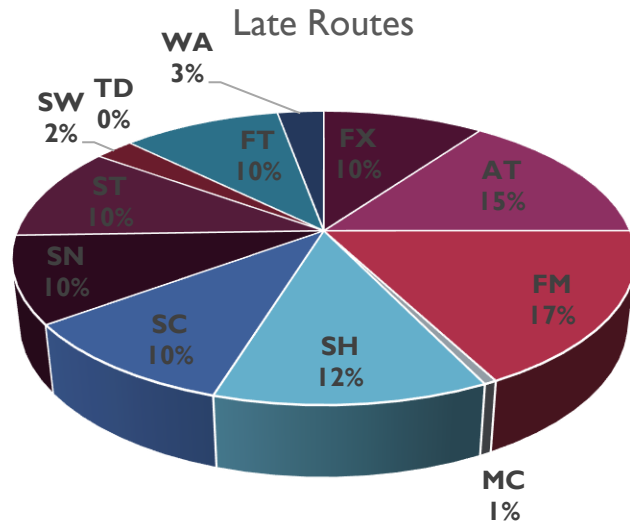
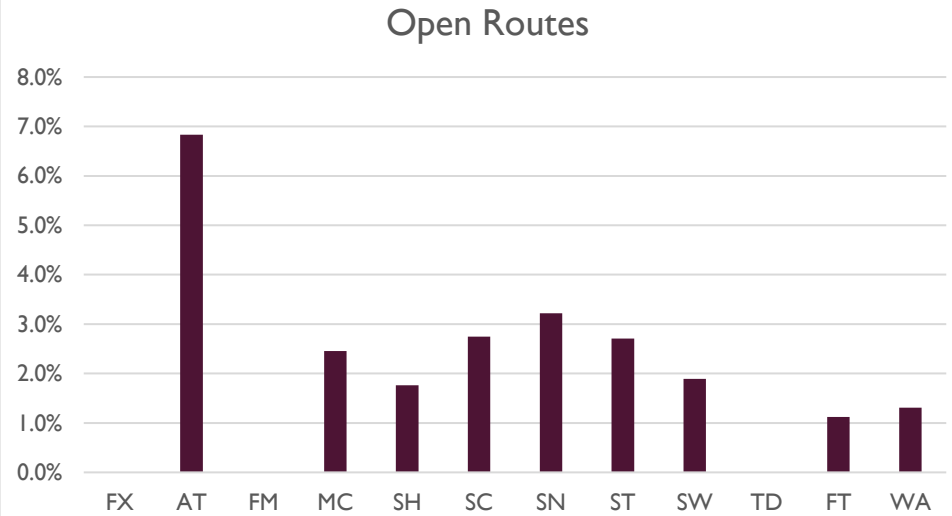
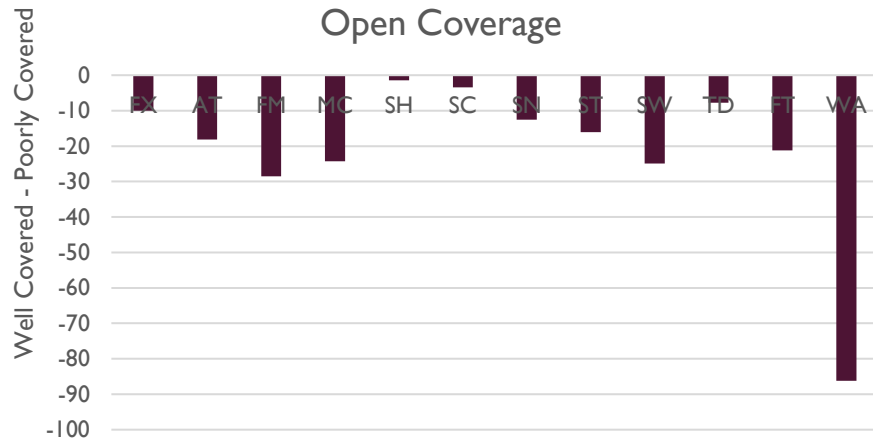
### 1. Key Performance Indicators used to track Operator contract compliance and performance

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.



Weekly Operator Status	FX	AT	FM	MC	SH	SC	SN	ST	SW	TD	FT	WA	Sys Avg
Total Number of Routes Servicing Toronto (AM/PM)	15	236	66	123	140	255	180	217	141	15	140	247	147.9
Total Number of Routes Servicing Toronto (Noon)	0	29	0	26	12	10	4	6	0	0	6	31	10.3
Grand Total Of Routes (Sum of two above)	15	265	65	149	152	265	184	223	141	15	146	278	158.1
Open Routes - Yellow	0.0	16.6	0	3.0	2.5	4.3	5.8	5.9	2.6	0.0	0.4	2.2	3.6
Open Routes - Wheelchair	0.0	0.0	0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	1.2	0.8	0.4
Open Routes - Mini Van	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0
Open Routes - (please specify each individual route below)	0.0	16.1	0	3.0	2.5	7.0	5.8	5.9	2.7	0.0	1.6	3.2	4.0
Open Routes (percentage of AM/PM routes)	0.0%	6.8%	0.0%	2.5%	1.8%	2.7%	3.2%	2.7%	1.9%	0.0%	1.1%	1.3%	2.0%
Number of drivers in training this week	1.3	5.6	2.1	4.5	8.9	5.8	5.5	7.8	3.4	0	1.9	4.2	4.2
Number of additional licensed drivers this week	0.3	1.6	0.4	0.6	1.5	0.9	1.2	1.1	1.3	0	0.8	1.5	0.9
Number of drivers who have left company this week	0.1	1.1	0.0	0.4	0.7	0.6	1.6	1.0	0.5	0	0.8	1.4	0.7
Driver Turnover Accumulated	4	44	0	12	28	21	58	37	19	0	31	56	
Driver Turnover weekly (percentage of am/pm routes)	0.7%	0.5%	0.0%	0.3%	0.5%	0.2%	0.9%	0.4%	0.3%	0.0%	0.6%	0.6%	0.4%
Driver Turnover Accumulated Annual %	26.8%	18.7%	0.0%	9.7%	20.0%	8.2%	32.2%	17.1%	13.5%	0.0%	22.1%	22.7%	15.9%
Number of Collisions	0.1	0.8	0.5	0.0	0.7	0.4	0.9	0.1	0.4	0.2	0.7	0.4	0.4
Number of Collisions - Accumulated	2	30	19	0	28	18	34	2	16	3	26	15	
Number of Collisions reported in TRACS	2	45	18	14	30	38	49	10	13	3	28	27	
Collisions (as a percentage of am/pm routes)	0.5%	0.3%	0.7%	0.0%	0.5%	0.2%	0.5%	0.02%	0.3%	1.0%	0.5%	0.2%	0.4%
Number of 'Missing Students' Reported	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
Number of 'Returned Students' (no supervision at stop)	0.3	2.0	13.4	0.0	12.4	0.0	0.9	0.1	5.6	0.1	0.2	0.2	2.9
Number of 'Incidents' (other then bill157)	0.0	0.4	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0	0.1	1.1	0.2
Number of 'Bill 157 Incidents'	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
Number of Late Routes - Weather/traffic related	2.2	24.4	15.7	0.8	16.4	18.2	19.6	24.7	4.2	0	15.5	4.6	12.2
Number of Late Routes - Operational related	0.2	32.9	2.7	0.3	10.7	20.1	6.5	10.5	1.2	0	6.0	5.2	8.0
Number of Late Routes - Planning related	0.0	0.1	0.0	0.0	0.0	3.5	1.7	1.1	0.2	0	0.7	1.7	0.7
Number of Late Routes - School related	0.2	4.5	5.5	0.0	5.7	4.2	4.1	1.3	1.4	0	2.8	0.6	2.5
Late Routes (as a percentage of am/pm routes)	16.0%	24.3%	27.8%	0.9%	19.4%	16.4%	15.4%	16.8%	3.9%	0.0%	15.8%	4.6%	13.4%
Number of Breakdowns	0.5	3.8	2.0	0.1	1.6	8.0	4.2	6.9	0.3	0	5.2	0.8	2.8
Number of Breakdowns - Accumulated	18	142	78	2	61	312	161	261	11	0	181	31	
Number of Breakdowns (percentage of am/pm routes)	3.2%	1.6%	3.0%	0.1%	1.1%	3.1%	2.4%	3.2%	0.2%	0.0%	3.7%	0.3%	1.8%
Number of spare drivers	2.0	4.9	4.0	8.0	4.4	10.6	12.0	11.0	4.4	2.7	10.3	17.6	7.6
Number of routes covered by taxi/subcontract	0.0	16.2	0.0	0.0	1.3	0.4	0.0	0.0	3.7	0	0.0	4.3	2.2
Number of other available drivers (only days when spare < routes)	0.0	3.3	15.6	0.0	0.0	10.2	0.0	16.4	5.0	0	2.0	0.7	4.4
Number of Split Routes Am	0.0	17.1	0.0	0.1	1.1	19.8	9.3	15.2	2.2	0	0.5	2.8	5.7
Number of Split Routes Pm	0.0	15.5	0.0	0.1	2.2	23.9	8.0	17.2	3.0	0	0.3	2.8	6.1
Total Number of Split Routes	0.0	32.4	0.0	0.1	3.3	43.7	17.3	32.3	5.2	0	0.8	5.5	11.7
Number of charters performed with school route buses	0.0	0.4	69.2	0.0	11.5	0.3	0.2	0.0	77.8	55.4	5.7	3.0	18.6
Number of spare vehicles	2.0	13.1	15.0	15.0	21.4	27.9	15.6	21.0	23.3	4.3	16.0	13.9	15.7
Number of book offs (last week total) AM	0.0	9.2	5.1	0.9	13.3	23.7	20.6	25.2	7.2	5.3	24.7	7.9	11.9
Number of book offs (last week total) Noon	0.0	1.1	0.0	0.1	0.5	0.1	0.7	0.2	0.0	0	0.6	2.3	0.5
Number of book offs (last week total) PM	0.0	9.9	7.1	0.6	15.0	26.4	18.5	26.0	7.3	5.45	24.3	8.0	12.4
Book Offs as a % of total routes	0.0%	1.0%	2.7%	0.1%	2.7%	2.6%	2.6%	3.0%	1.3%	9.3%	4.3%	0.8%	2.5%
Percentage of Spares (5% contract minimum)	13.4%	2.1%	6.0%	6.5%	3.2%	4.1%	6.7%	5.1%	3.1%	18.1%	7.3%	7.1%	6.9%
Open Coverage	-10	-18.1	-28.6	-24.3	-1.5	-3.5	-12.6	-16.1	-24.9	-7.8	-21.2	-86.25	-21.2
1 standard deviation above average													
1 standard deviation below the average													



## **TSTG KPI**

In order to address the performance of the Toronto Student Transportation Group a number of key performance indicators have also been identified as a means to track how well the organization is doing. Over time a historical trend can be identified that will show areas of strength and weakness. Of the data below the capacity utilization of 90% is significant considering a majority of the transportation provided in Toronto is for special needs students who typically have longer trips and lower loads.

**Number of Changes:** Of significant impact to the level of service that the TSTG offers its Board members is the number of changes received in late August and into September. Looking at the data below you can see that over 4500 changes are processed in Transportation during the month of September alone. This equates to 9% of all students being impacted during the start up. Consistency is the backbone to better levels of service and it is difficult to deliver this service when the system is in such a state of flux during this time period. By prohibiting the addition of new students to routes or changes to planned routes for the first two week of school and establishing a weekly change schedule that would increase stability for students and drivers along with providing better service for all involved. Accurate and timely delivery of student data is paramount to building good transportation routes that are more resilient to change and providing minimal impacts to our student population.

**Web Site Visits:** Communication is one of the key tools to ensure our stakeholders have accurate and timely information. The introduction of the delay portal saw access numbers to the web site reach over 20,000 hits in September alone. Spikes in accessing data in January indicate that families are looking for updates to transportation status, especially during the cold and stormy weather to confirm if buses were cancelled or not. 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.

# Toronto Student Transportation Group, Annual Report (2016-2017)



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TSTG Status	September	November	January	March	May	Average
Total Number of Routes Servicing Toronto (AM/PM)[72]	452	452	454	454	454	453
Total Number of Routes Servicing Toronto (AM/PM)[18]	1058	1089	1089	1089	1090	1085
Total Number of Routes Servicing Toronto (AM/PM)[5]	79	79	78	78	77	78
Total Number of Routes Servicing Toronto (AM/PM)[4]	168	168	168	168	168	168
Total Number of Routes Servicing Toronto (Noon)	132	156	155	155	155	152
Grand Total Of Routes (AM/PM TOTAL ONLY)	1757	1788	1789	1789	1789	1784
Monthly Change (# of routes)	-0.1%	0.0%	0.1%	0.0%	0.0%	0.00
Number of students transported (bus)	47949	49792	49627	49532	49199	49371
Number of students transported (TTC)	3836	6180	5655	6893	7263	6306
Number of students transported (Taxi)	69	83	98	101	102	93
Number of students transported (All)	51854	56055	55380	56526	56564	55769
Student per vehicle	27.3	27.8	27.7	27.7	27.5	28
Number of Changes	4574	3020	2202	1806	1531	2349
Total Kilometres	67533	70487	70951	71940	71639	70824
Available Capacity	52655	53213	53352	53352	53365	53223
Capacity Utilization	91.1%	93.6%	93%	93%	92%	93%
Tot Cost/month (not incl utiliz, taxi, ttc )	\$7,826,119.38	\$8,795,810.52	\$6,706,882.24	\$7,545,242.52	\$9,222,527.16	\$7,816,894.15
Tot Cost/Day	\$ 411,901.02	\$ 418,848.12	\$ 419,180.14	\$ 419,180.14	\$ 419,205.78	\$ 418,048.12
Monthly Variant	0.00%	0.00%	0.08%	0.00%	0.01%	0.10%
Cost per Student/month	\$ 163.22	\$ 176.65	\$ 135.15	\$ 152.33	\$ 187.45	\$ 158.38
Cost per Bus/month	\$ 4,454.25	\$ 4,919.36	\$ 3,748.96	\$ 4,217.58	\$ 5,155.13	\$ 4,381.79
Cost per Kilometre/month	\$ 115.89	\$ 124.79	\$ 94.53	\$ 104.88	\$ 128.74	\$ 110.43
Average run length (km)	15.7	16	16.2	16.3	16.5	16
Average run time (min)	51.27	52.8	53.5	53.9	54.4	53
Average # stops	8.9	9.1	9.2	9.2	9.2	9
Web Visits [Google Analytics](Total Visits/Sessions)	29645	9285	15658	6642	6642	13828





Phone Call Answer Rate	54%	81%	72%	88%	90%	80%
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## Transportation Planning

The transportation-planning unit is responsible for the design and maintenance of the school bus routes. As a means 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.

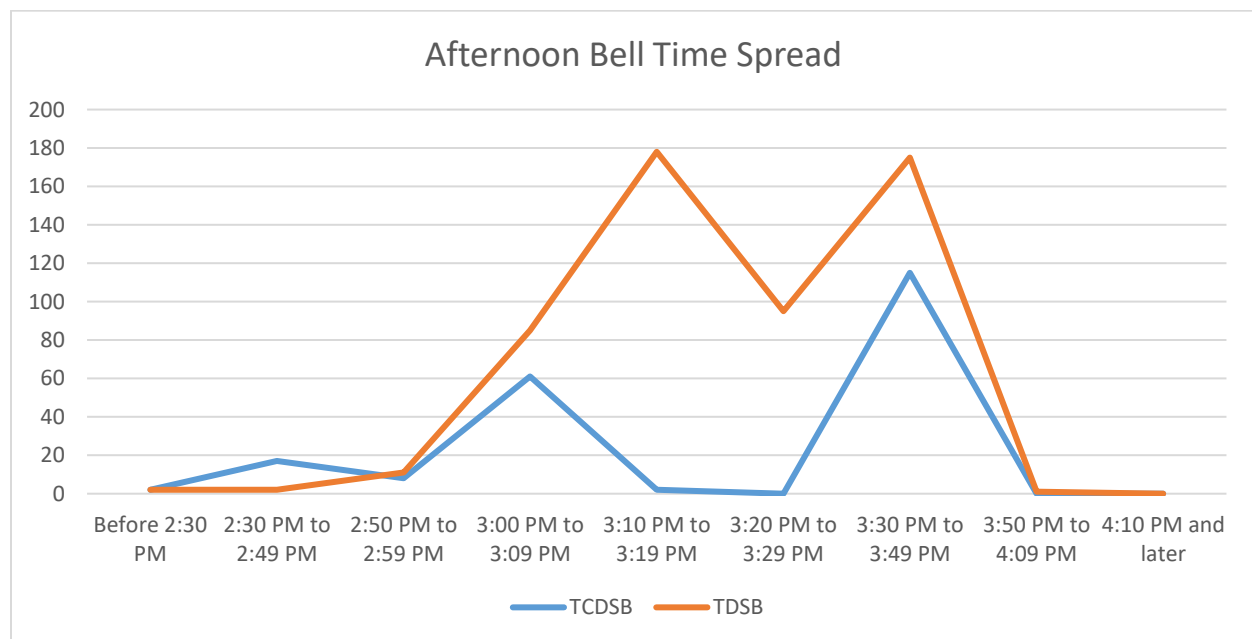
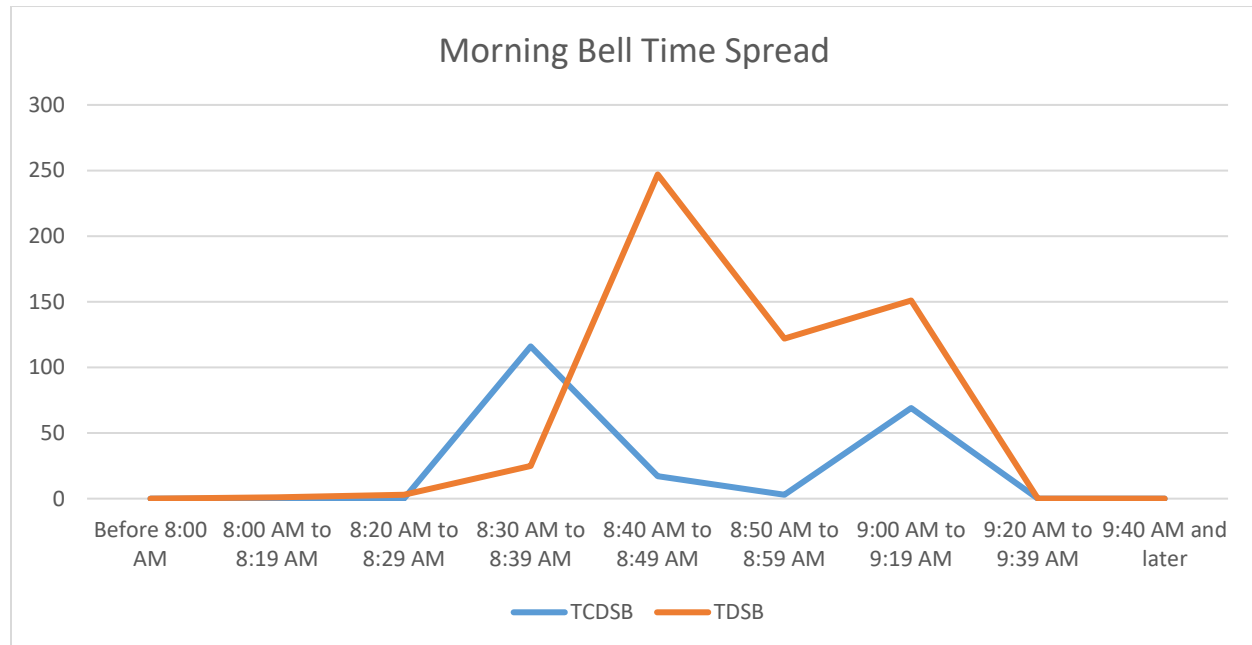
### Bell Times

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

Morning Bell Time					After Noon Bell Time			
AM Range	TCDSB	TDSB	Total		PM Range	TCDSB	TDSB	Total
Before 8:00 AM	0	0	0		Before 2:30 PM	2	2	4
8:00 AM to 8:19 AM	0	1	1		2:30 PM to 2:49 PM	17	2	19
8:20 AM to 8:29 AM	0	3	3		2:50 PM to 2:59 PM	8	11	19
8:30 AM to 8:39 AM	116	25	141		3:00 PM to 3:09 PM	61	85	146
8:40 AM to 8:49 AM	17	247	264		3:10 PM to 3:19 PM	2	178	180
8:50 AM to 8:59 AM	3	122	125		3:20 PM to 3:29 PM	0	95	95
9:00 AM to 9:19 AM	69	151	220		3:30 PM to 3:49 PM	115	175	290
9:20 AM to 9:39 AM	0	0	0		3:50 PM to 4:09 PM	0	1	1
9:40 AM and later	0	0	0		4:10 PM and later	0	0	0
Total # of Schools	205	549	754		Total # of Schools	205	549	754

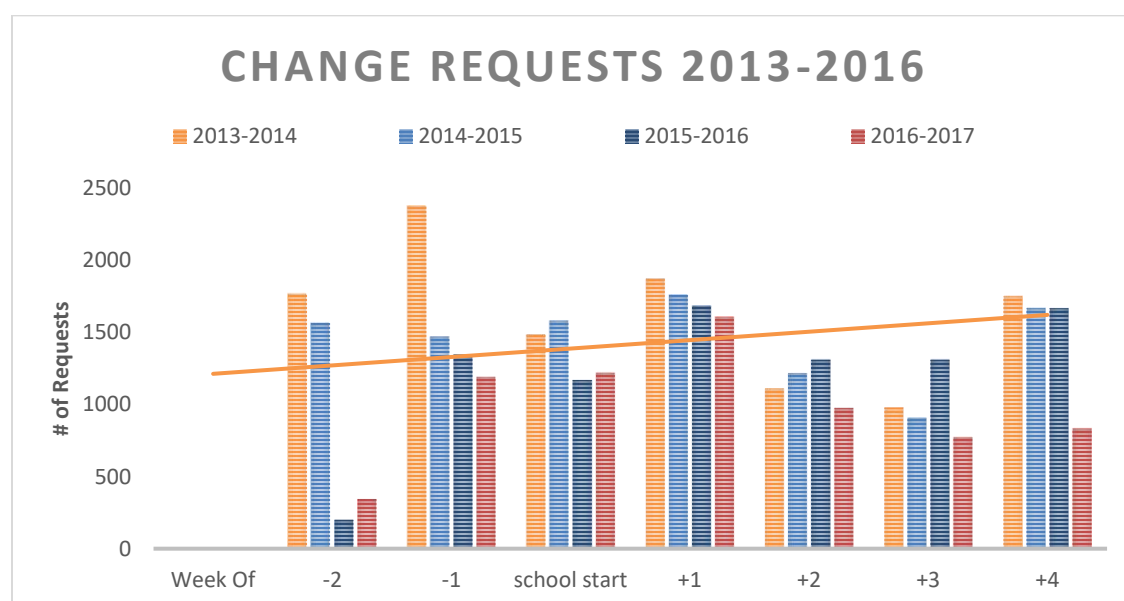
### 3. Bell Time Distribution



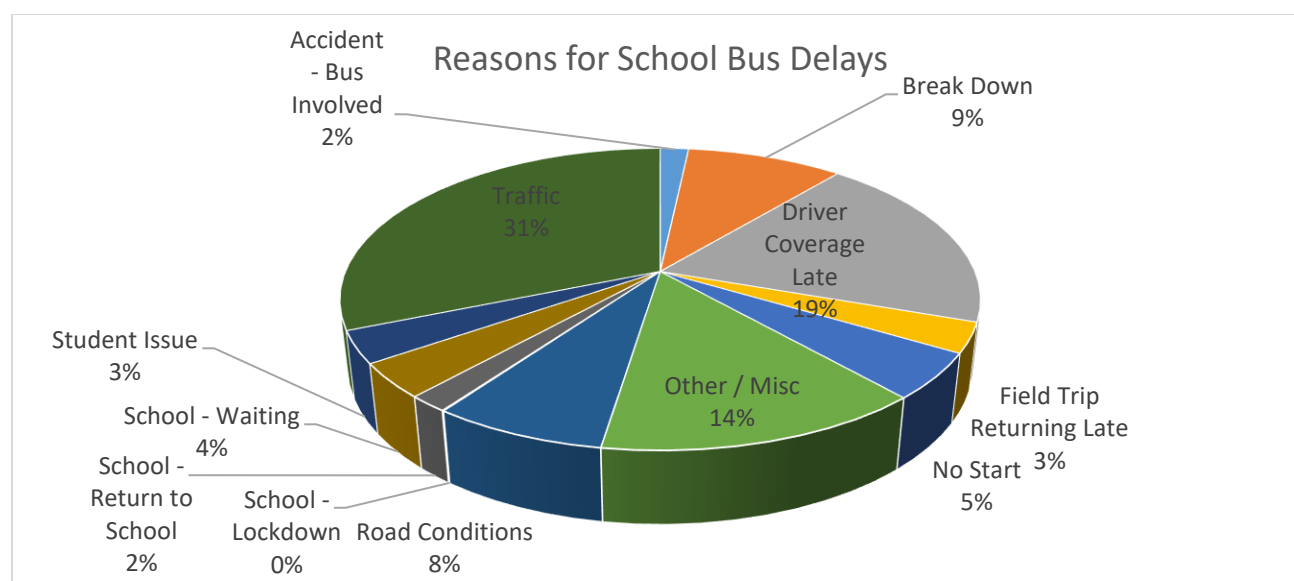
## Change Summary

Student transportation services will process over 1000 requests each week during September start-up. Tracking the volume of changes allows staff the opportunity ensures that resources are in place to maintain a consistent level of service. New in 2016-2017 was the introduction of the delay portal, which identified school bus delays and a means for families and schools to have better communication around school bus delays.

### 4. Historical Summary of transportation change requests 2013 – 2016



### 5. Delay Portal



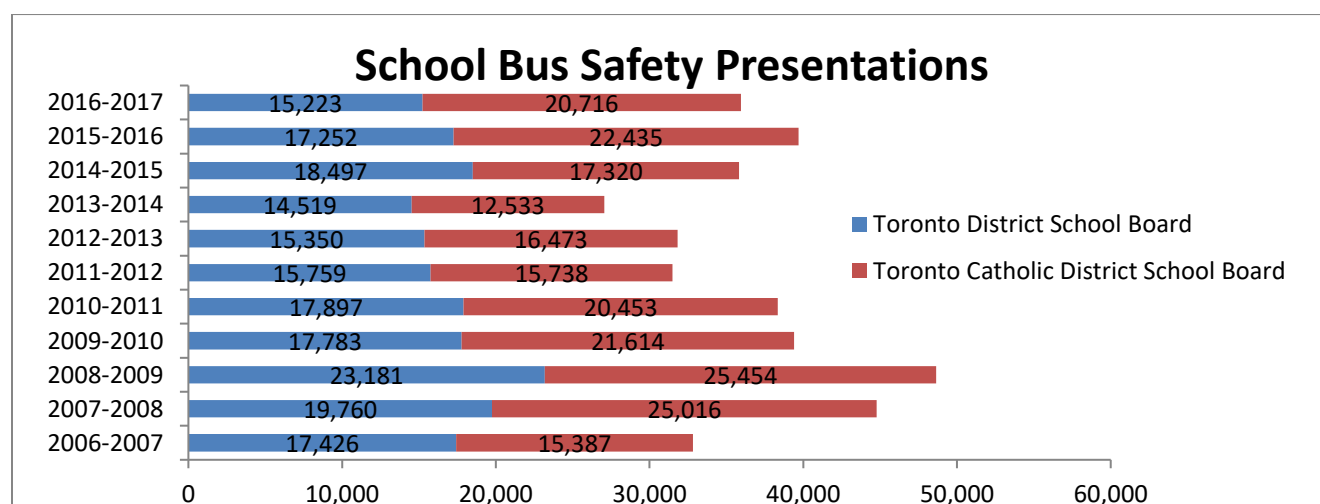
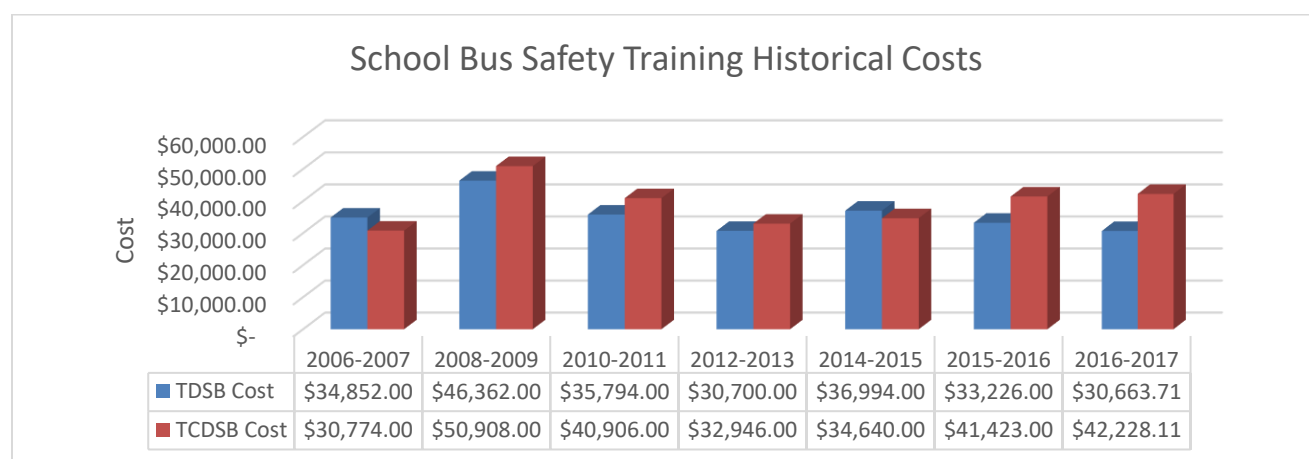
## Safety

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 a number of transportation safety programs in order to educate our students, families and the general motoring public. The in-school program has been in place since 1993 and services approximately 20,000 students each year. The number of students participating in the program over the last several years is highlighted below.

#### 6. School bus safety program historical summary

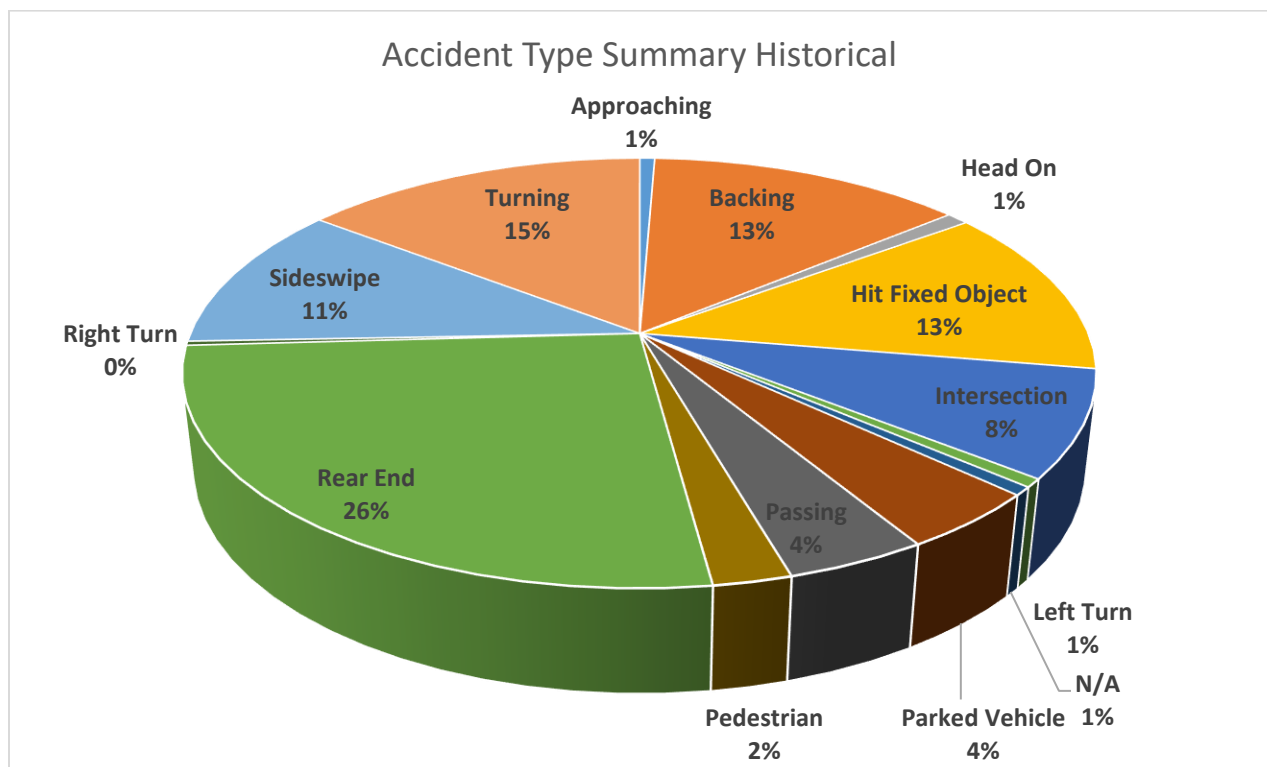


## Accident Statistics

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.

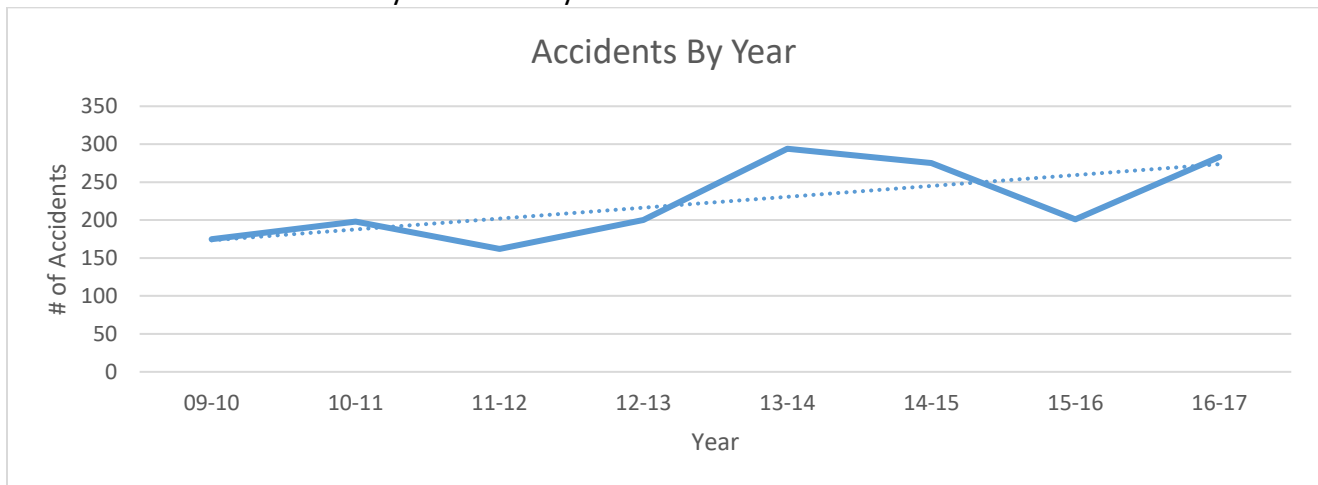
- Based on data highlighted below the trend for school bus accidents is on the rise; however, over the last three years it is in decline. The majority of accidents can be attributed to 'rear ends' and 'sideswiping' based on conditions reported in 16-17. Although school bus carriers cannot control non-preventable accidents, training can be tailored to address the factors contributing to preventable accidents.

### 7. Conditions impacting school bus accidents

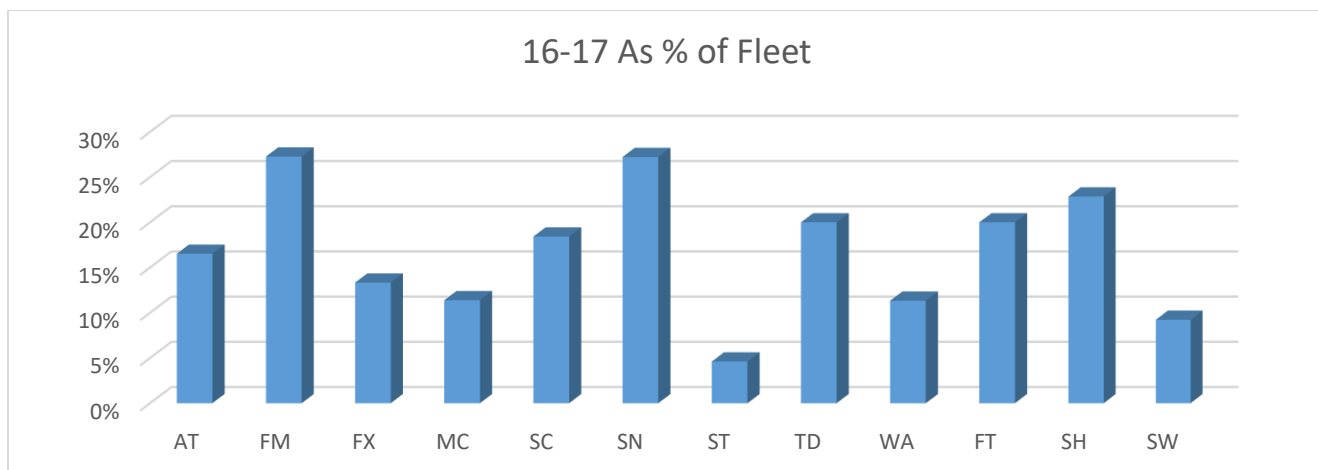
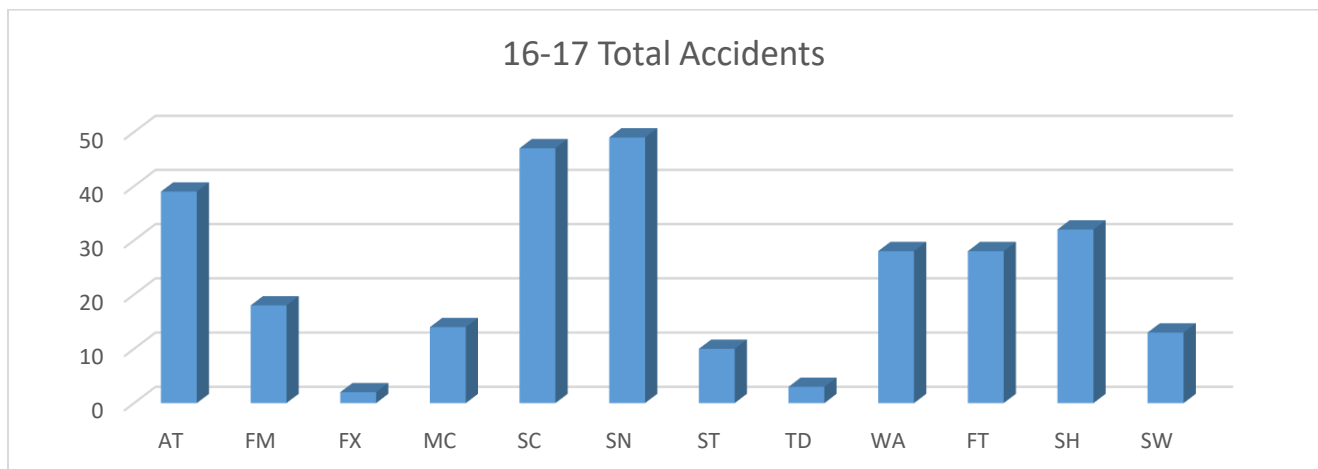




## 8. Year over year summary of accident statistics



## 9. 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 a number of 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.

